Abstract

On the Synchrony and Diachrony of the Spanish Imperfective Domain: Contextual Modulation and Semantic Change

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Some links between linguistic meanings and their corresponding markers change systematically and cyclically in what are known as *grammaticalization paths*. Although the observations that give rise to these characterizations are cross-linguistically robust, the representations and cognitive processes that support these shifts are still not well understood. This dissertation bridges that gap through the use of corpus studies and experimental methods, providing a characterization of the forces at play in semantic variation and change.

The focus is on the PROGRESSIVE-to-IMPERFECTIVE shift. In this change, languages that have only one marker for *habitual* and *event-in-progress* readings **recruit** a new marker for the *event-in-progress* one. The two markers slowly undergo a **categoricalization** process, where each marker gets restricted to one reading, until the new marker **generalizes** to both readings and pushes the old marker out of the language. I look at this change in Spanish, since it currently presents two diachronically-related markers that convey these readings: the Simple Present and the Present Progressive. However, there is a many-to-many mapping between forms and meanings: both markers can express both readings, showing that a full **categorical** stage has not yet been achieved, though a **generalization** process is already underway. What are the contextual conditions that enable the use of each marker for each reading? Are these constraints related to the diachronic development of the markers?

To address these questions, I propose that semantic variation and change are rooted in the structure of the meanings that participate in the shift and in the contextual conditions in which these markers are interpreted. On the basis of clear formal characterizations of the PROGRESSIVE and the IMPERFECTIVE, I argue that these meanings share a conceptual structure that allows for variation and change to occur. As for the contextual conditions, I propose that **shared perceptual access** between speaker and hearer is the relevant factor preventing full **categoricalization**. Shared perceptual access is a contextual means

to attain Perspective Alignment, a communicative goal grounded on two complementary cognitive capacities: Common Ground and Theory of Mind. While the former affords the speaker greater reliance on context, the latter forces her to be linguistically explicit. As for the **generalization** of the Present Progressive to *habitual* readings, I argue that it preferentially occurs in contexts that satisfy the **presuppositional requirement of *estar*** (the auxiliary verb in the Present Progressive); that is, in contexts that entertain salient alternatives at which the proposition at issue does not hold. Given its semantic composition, the Present Progressive conveys the *habitual* reading and implicates a rejected alternative, maximizing context set restriction, increasing the informativity of the expression, and making it overtime preferable to the Simple Present, which conveys the *habitual* reading alone.

These hypotheses are tested in three ways. A corpus study across three time periods confirms the role of **shared perceptual access** as the crucial contextual condition in the diachronic interplay of these markers. Acceptability judgments tasks and self-paced reading studies also assess the role of these contextual constraints in three Spanish dialects (Central Peninsular, Mexican Altiplano, and Rioplatense). Results show that the Present Progressive is the preferred marker to express the *event-in-progress* reading (higher acceptability, shorter reading times), but the Simple Present can still convey it when speaker and hearer **share perceptual access**. This contextual boost disappears in Mexican Spanish, where participants reject the Simple Present regardless of context. For the *habitual* reading, the Simple Present is the preferred marker, but the Present Progressive can be used when the **presuppositional content of *estar*** is satisfied by the context. In Mexican Spanish, this contextual support is not needed. Thus, the data show that Mexican Spanish is further along the grammaticalization path than its Rioplatense and Peninsular counterparts.

Altogether, the patterns observed across dialects are consistent with a model of semantic variation and change embedded in a communicative system, visible during real-time comprehension, and subject to identifiable contextual factors. On the one hand, linguistic markers compete to optimize Common Ground and Theory of Mind pressures, supporting each dialect's advancement in their own path of change. On the other hand, the *generalization* process is shown to be driven by the contrastive informativity strength of the combined lexico-semantic properties of the Present Progressive marker.

On the Synchrony and Diachrony of the Spanish Imperfective Domain: Contextual Modulation and Semantic Change

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Abbreviations

In all examples I follow the Leipzig Glossing Rules, with some minor additions. A list of all relevant abbreviations is given below:

1	first person
2	second person
3	third person
ACC	accusative
COND	conditional
CONT	continuous
DAT	dative
F	feminine
FUT	future
GER	gerund
HAB	habitual
IMP	imperative
INF	infinitive
IPFV	imperfective
M	masculine
PFV	perfective
PL	plural
POSS	possessive
PROG	progressive
PRS	present
PST	past
REFL	reflexive
SG	singular

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You would think a linguist would have it easy with words. But this section feels much more intimidating than all the others. I don't want to forget anyone, and these things make me a bit sentimental, so please bear with me while I thank all the people who helped me get to this point.

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"I almost wish I hadn't gone
down that rabbit-hole
—and yet—and yet—
it's rather curious, you know,
this sort of life!"

LEWIS CARROLL
Alice's Adventures in Wonderland

To my friends.

Chapter 1

Introduction

It has been observed cross-linguistically that the links between specific functional meanings and their corresponding linguistic markers changes systematically across time following clear and predictable patterns. These consistent shifts are viewed as *unidirectional grammaticalization paths* that manifest cyclically (Bybee et al. 1994, Dahl 1985, Haspelmath 1999, Heine et al. 1991, Hopper & Traugott 2003, Lehmann 1985, Traugott 1989, Traugott & Dasher 2002, Traugott & Heine 1991, *i.a.*). Although the empirical observations that give rise to these characterizations are well-attested and robust, the specific representations and the communicative and cognitive processes that might respectively support and lead to these shifts are still not well understood. This dissertation seeks to bridge that gap through the use of corpus studies and experimental methods, ultimately providing a characterization of some of the forces involved in semantic variation and change.

As Deo (2014) points out, a theory of semantic change should minimally address the following questions:

1. What is the semantic content corresponding to the functional expressions that constitute the input to or the output of a grammaticalization path?

2. What is the logical relation between the meanings of these expressions such that a 'path' may exist between them?

3. What are the necessary and sufficient conditions for the *recruitment* of lexical material to generate functional material?

4. What factors of usage and grammar are involved in *categoricalization* and *generalization* of innovated functional material in a given linguistic system?

5. Is reduction in inventory (i.e., loss) spontaneous, is it a concomitant of generalization or can it be both? (Deo 2014: 395).

Here I will address these questions in relation to the PROGRESSIVE-to-IMPERFECTIVE shift. In this diachronic path, languages evolve from the availability of only one marker that expresses all Imperfective readings (*event-in-progress*, *habitual*, and *continuous*) to **recruiting** a new marker to optionally express the *event-in-progress* reading. Over time, these two markers are circumscribed to **categorical** domains of use: the new marker conventionalizes in the expression of the *event-in-progress* reading, while the old marker gets restricted to the expression of the *habitual* and the *continuous* readings. Finally, the new marker **generalizes** to all imperfective readings, and the old marker gets further restricted, potentially being pushed out of the language.

Regarding the questions in Deo (2014), I propose an answer to **Question 1** that is based on the semantics proposed by Deo (2009, 2015) for the IMPERFECTIVE and the PROGRESSIVE as operators that quantify over regular partitions of a interval. Under that analysis, a proposition under the scope of the PROGRESSIVE operator asymmetrically entails that proposition under the scope of the IMPERFECTIVE operator. This entailment relationship provides a tentative answer to **Question 2**. I will show that these operationalized meanings also share a conceptual structure —that can be accessed by linguistic material, but it is not necessarily linguistic in nature—, which grounds the pathway of change that is systematically observed in the functional markers that linguistically encode these meanings. Moreover, a shared conceptual structure also helps to explain the synchronic variation that formal exponents of these operators display across different languages. In sum, both the operationalized meanings and their shared conceptual structure provide an account of the representations involved in the PROGRESSIVE-to-IMPERFECTIVE shift.

The main contribution of this dissertation, however, is to be found in the answers to **Question 3** and **Question 4** (and some observations with respect to **Question 5**). I argue that we can look at patterns of synchronic dialectal variation within a particular semantic domain to see the reflection of diachronic pressures within a shift. The movement across stages in any diachronic path is in this way triggered by isolable and specific communicative and cognitive forces, which are reflected in contextual constraints that are at play in the synchronic interpretation of the markers. Analyzing the communicative and cognitive grounding of these contextual constraints, and their role in the processes of **recruitment**,

categoricalization, and **generalization** of functional material are the main goals of this dissertation.

Moreover, to address this last set of questions, it is necessary to look at a specific case of a grammaticalization path. Therefore, I will examine the PROGRESSIVE-to-IMPERFECTIVE shift in Spanish, since the Imperfective domain in this language is currently realized by two markers that are also related diachronically: the synthetic Simple Present marker, and a newer, periphrastic Present Progressive marker, constituted by the verb *estar* + gerund (the verb form ending in *-ndo*). The main diachronic observation in the literature about the development of this system is that the Present Progressive marker arose in the 12th century from a locative construction and has been slowly encroaching into the domain of the Simple Present (e.g., Torres Cacoullos 2000 *et seq.*). To better understand the factors participating in the **recruitment** of this new marker, we will study the distributional variation between it and the Simple Present marker across different time periods in Central Peninsular Spanish. A corpus study of their diachronic trajectories with synchronic cuts in Old Spanish (12th-15th centuries) Golden Age Spanish (16th-18th centuries) and Contemporary Spanish (19th-21st centuries) will shed light on the linguistic and contextual factors that trigger and support the development of a progressive marker in Spanish.

As for the synchronic distribution of these markers, the traditional claim is that they are in "free variation" with respect to the expression of an *event-in-progress* reading, and that the Simple Present form is the only device available in the language to convey a *habitual* reading (e.g., Bertinetto 2000, Comrie 1976, Marchand 1955). This distribution would indicate a stage in the diachronic pathway in which these markers are partially-context dependent in their interpretation —since the Simple Present can be ambiguous between the two readings, but the Present Progressive is already available to express the *event-in-progress* reading—, and a **categoricalization** stage has not yet been reached. However, these traditional descriptions fail at considering the broader context of interpretation. I will show that even if there are preferences for each marker-reading pairing, when the right context is provided, both markers can convey both readings; that is, in Spanish both the Simple Present marker and the Present Progressive marker can map to the *event-in-progress* reading or to the *habitual* reading in a two-by-two system. This pattern indicates that a full

categoricalization process is yet to be completed, but also that a **generalization** process is already underway. Crucially, this distribution shows that the synchronic interpretation of the markers is dependent on properties of the broader linguistic and non-linguistic context.

To analyze the factors involved in the **categoricalization** and **generalization** of these exponents, the second part of this dissertation will focus on the distribution of these markers in different dialectal varieties of present-day Spanish: Central Peninsular (Madrid), Rioplatense (Buenos Aires), and Mexican Altiplano (Mexico City) Spanish. The rationale is that studying different dialects of Spanish can show the diachronic shift at work in different synchronic cuts: different dialects can be at different sub-stages of the same pathway of change in the same way that different languages are said to be at different stages in the grammaticalization path (e.g., Bybee et al. 1994). I will explore dialectal variation in the Spanish Imperfective domain through a series of different experimental paradigms that allow for the controlled manipulation of contextual information. Working with data from experimental tasks can provide a better understanding of the linguistic system of the speakers and hearers that make use of these forms in communicating these meanings. Acceptability judgments questionnaires will provide the first set of evidence for an empirically-supported analysis of the contextual factors that constrain the distributional patterns of the Simple Present and the Present Progressive markers in present-day Spanish. Self-paced reading tasks will be a window into the online processing of these markers, assessing the cognitive reality of these contextual constraints in real-time comprehension. One series of studies will focus on the *rearguard* of the semantic change —that is, the cases in which the old marker, the Simple Present, can still be used to convey an *event-in-progress* reading, preventing the full **categoricalization** of the system. A second series of studies will look at the *vanguard* of the grammaticalization path —that is, the cases in which the newer marker, the Present Progressive, is able to convey a *habitual* reading, showing the beginnings of a **generalization** process.

In summary, and to provide some answers to the fundamental questions described above, this dissertation will specifically address the following questions:

1. What is the distribution between the Present Progressive marker and the Simple Present marker in Old Spanish, in Golden Age Spanish, an in present-day Spanish?

2. What is their distribution in present-day Spanish in Central Peninsular Spanish, Mexican Altiplano Spanish, and Rioplatense Spanish?

3. What are the features of the discourse and the situational context that explain the distribution of these markers across dialects (synchronically) and across times (diachronically)?

4. What are the communicative principles and cognitive pressures that ground the contextual constraints at play in the interpretation of these markers in the expression of the *event-in-progress* and the *habitual* readings?

5. What is the relation between these contextual constraints and the mechanisms at play in advancing the change from one stage to the following in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path?

The dissertation is structured as follows. In **Chapter 2** I present the distributional puzzle between the Simple Present marker and the Present Progressive marker in the Spanish Imperfective Domain, both from a synchronic and from a diachronic perspective. I discuss previous accounts that have tried to explain the alternation between these two markers to convey the different readings within the Spanish Imperfective domain, and I also present some studies that have addressed the problem of dialectal variation within this domain in present-day Spanish. **Chapter 3** introduces the ingredients needed to provide a solution to the Spanish Imperfective puzzle: a unified semantic analysis of the PROGRESSIVE and the IMPERFECTIVE, a proposal about their shared conceptual structure, and two hypotheses that explain the contextual constraints at play in the synchronic distribution and diachronic development of these markers within the PROGRESSIVE-to-IMPERFECTIVE shift. **Chapter 4** presents a diachronic corpus study in Old Spanish, Middle Age Spanish, and Contemporary Spanish, where I analyze the factors that constrain the distribution of these markers across time periods and test the validity of the hypotheses presented in the previous chapter. **Chapter 5** specifically analyzes the **categoricalization** process. It presents the results from an acceptability judgments task and a self-paced reading study in three

dialects of Spanish —Central Peninsular Spanish, Rioplatense Spanish, and Mexican Altiplano Spanish— that confirm the hypothesis about the communicative and cognitive forces that trigger this process. **Chapter 6** explores the **generalization** process, also presenting results from acceptability judgments tasks and self-paced reading studies in the same three dialectal varieties of Spanish, providing evidence to the hypothesis about the forces that advance the diachronic shift to this stage. Finally, **Chapter 7** presents a summary of the main contributions of this dissertation, together with general conclusions and possible avenues for further research.

Chapter 2

The Spanish Imperfective domain

2.1 Introduction

This chapter provides a general background on the distribution of the Simple Present marker and the Present Progressive marker in the Spanish Imperfective domain, both from a synchronic and from a diachronic perspective. After presenting data on the distributional pattern of these markers in present-day Spanish, I introduce some descriptive accounts that have tried to explain the constraints that affect the distribution of these two markers. Then, I present some observations about the diachronic relation between the markers, together with some studies that have analyzed the synchronic dialectal variation that is observed in their alternation within the Imperfective domain.

2.2 A synchronic view

Spanish expresses the Imperfective aspectual domain in the Present tense[1] with two markers: the periphrastic Present Progressive marker in (1a), constituted by the verb *estar* 'to be' plus the gerund form V+-*ndo*, and the synthetic Simple Present marker in (1b):

(1)   a. Ana est-á   fuma-ndo   ahora.
          Ana be-PRS.3.SG smoke-PROG now
          'Ana is smoking now.'

       b. Ana fum-a   ahora.
          Ana smoke-PRS.3.SG now
          'Ana is smoking now.'

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[1] One of the main goals of this dissertation is to uncover the crucial contextual conditions that affect the interpretation of the markers that lexicalize the Imperfective domain. To this end, it focuses on the Present tense since shifting the reference time would introduce a new dimension to the analysis that could independently affect the distribution and interpretation of these markers. Some general observations about the interactions of Imperfective and Progressive aspect with Past and Future tense are presented in the conclusions in Chapter 7. However, a detailed explanation of the puzzles that arise from those aspect-tense interactions is left for further research.

In (1), these markers are conveying an *event-in-progress* reading; that is, their contribution to the sentential meaning leads to the interpretation that the event described by the predicate is unfolding at reference time, which in this case coincides with speech time.

Traditional descriptions of Spanish (Bull 1965, de Bruyne 1995, NGRAE 2009, Roca Pons 1958, Yllera 1999, *i.a.*) consider that the sentence in (1a) unambiguously expresses the *event-in-progress* reading, and that the sentence in (1b) is able to express the same reading too, specially when an adverb such as *ahora* 'now' —which restricts the temporal interpretation of the event to its overlap with speech time— is present. These characterizations suggest that the *event-in-progress* reading can be expressed optionally in Spanish by either the Present Progressive marker in (1a) or by the Simple Present marker in (1b), two markers that seem to be in *free alternation* with respect to the expression of this reading (Bertinetto 2000, Comrie 1976, Marchand 1955, Westfall 1995, *i.a.*). Comrie (1976: 33), for instance, simply states that "corresponding to English *John is singing* Spanish may have either *Juan está cantando* or *Juan canta.*"

Other accounts present the intuition that the Simple Present and the Present Progressive markers are not in *free alternation*, but that their distribution is rather *contextually determined.* Those accounts, however, do not make clear characterizations of the relevant contextual properties that would be at play in accounting for the distribution, thus lacking predicting power. For instance, they report that the Spanish Present Progressive marker *actualizes* the event (Fernández de Castro 1999) or *enhances* its duration (Roca Pons 1958), yet they leave the key processes of *actualization* or *enhancement* undefined. Most of the literature that points to a contextually determined variation pattern has been produced by authors who are native speakers of Spanish —that is, native speakers have the clear intuition that these markers are *not* in free variation to convey an *event-in-progress* reading, but that their distribution is contextually determined. The unsolved problem, however, is the identification of these contexts.

All these characterizations, on the other hand, claim that the other readings of the Imperfective domain —that is, the *habitual* and the *continuous* readings— can be only expressed by the Simple Present marker. However, data from present-day Spanish contradicts this claim. With the right contextual background, both the Simple Present marker and the

Present Progressive marker can express a *habitual* reading; that is, their contribution to the sentential meaning can lead to the interpretation that the event described by the predicate has regular instantiations over some interval of time. For example, consider the sentences in (2), which express a *habitual* reading either with the Present Progressive marker (2a) or with the Simple Present marker (2b):

(2) a. Ana est-á   fuma-ndo   diez cigarillos por día.
         Ana be-PRS.3.SG smoke-PROG ten   cigarettes a   day
         'Ana is smoking ten cigarettes a day.'

     b. Ana fum-a   diez cigarrillos por día.
         Ana smoke-PRS.3.SG ten   cigarettes a   day
         'Ana smokes ten cigarettes a day.'

The sentences in (1) and (2) show that, given different discourse or situational contexts, both the Present Progressive marker and the Simple Present marker can each alternatively convey the *event-in-progress* reading or the *habitual* reading in present-day Spanish. This situation is not economic from a *one form/one meaning* system perspective. Why would a language have a many-to-many mapping between forms and meanings? To address these questions, we will need to explore: (a), how are these different readings connected such that this alternation can obtain, and (b), what specific contextual factors are modulating the observed distribution between these markers.

2.3   Previous accounts of the alternation

This section presents some previous accounts that have attempted to explain the distribution of the Present Progressive marker and the Simple Present marker within the Imperfective domain in Spanish.

When considering the descriptions of Spanish aspectual systems in general, and of the Imperfective domain in particular, the first thing that becomes clear is that there are many contradictory observations with respect to this topic (e.g., García Fernández 2009, Rojo 1990, Yllera 1999). While most proposals consider that the alternation between the Simple Present and the Present Progressive markers to express an *event-in-progress* reading is

unconstrained, they still point to some special characteristic or additional semantic value that the Present Progressive marker conveys (in comparison to the Simple Present).

We can classify these accounts in three groups. The first group considers that the main feature of the periphrasis is that it expresses a *durative* meaning, and it emphasizes the continuation of the event (Gili Gaya 1964, NGRAE 2009, Roca Pons 1958, Seco 1966, Spaulding 1926). According to these proposals, the main difference with the Simple Present (or with the simple forms in general) is that the Present Progressive marker *enhances the duration* of the event described by the gerund.

Opposing this first group, a second group states that the Present Progressive marker is actually expressing *limited duration*. Llorente Vigil (1999) considers that 'estar + gerund' conveys a *short and concrete action* that occurs in a precise moment, which is nonetheless *durative*. García Fernández (2009) has a more complex, but similar understanding of the facts. His work considers that the periphrasis is *semantically dynamic* but *syntactically static*, and thus has both dynamic and stative properties. The author's main claim is that the Present Progressive marker presents a *sequencing of the event*, dividing it into an indefinite series of instantaneous states that are temporally linked. This proposal allows explaining many nuances in the meaning of the periphrasis, such as its *iterative* interpretation with punctual predicates (e.g., *Juan está estornudando* 'John is sneezing') or its *dynamizing* value with states, making them temporally contingent (e.g., *Juan está siendo un tonto* 'John is being a fool').

The third group considers that the central characteristic of the periphrasis is a feature of *actualization*, which is defined in different ways, but always involves some degree of "*moment-of-speech currentness*" or "*dynamic ongoingness*" (Fernández de Castro 1990, 1999; Górbova 2000, Yllera 1999). Nevertheless, accounts that take *actualization* as the main property of the Present Progressive marker can also be quite different between them. For instance, Fernández de Castro (1999: 237) considers that *actualization* should be interpreted as *emphasis* and *expressivity*: the Present Progressive marker makes the events more real and effective than the use of the Simple Present. Interestingly, he claims that the periphrasis is interchangeable with the Simple Present marker when the **context** *actualizes* the event (1999: 238). Górbova (2000) questions most of the traditional definitions

of the progressive periphrasis and arrives at a similar conclusion: the Present Progressive marker *concretizes* the event (as opposed to the *abstraction* of the Simple Present). This *concretization* (i.e., *actualization*) makes the event more *relevant* and *emphatic*. According to the author, this approach can thus explain the "optionality" of the Present Progressive marker, given that the concrete/non-concrete opposition is the most subjective and nuanced semantic choice that speakers make when uttering a sentence. Yllera (1999) considers that the periphrasis presents the event in its development and ongoingness, and therefore it *actualizes* the verbal process. She claims that this meaning is enhanced by the frequent co-occurrence of temporal adverbials or time adjuncts that carry the meaning of *ongoingness* and, similarly to Fernández de Castro (1999), she argues that the Present Progressive form is only interchangeable with the Simple Present marker when the context undertakes the *actualization* process, or when the situation induces the *actualization* of the predicate (Yllera 1999: 3403).

Some of these proposals also take into account the distributional restrictions that are observed with the Present Progressive marker (e.g., Bertinetto 2000, NGRAE 2009, Yllera 1999). The periphrasis is said to be incompatible with stative predicates, though Yllera (1999) shows that it can sometimes combine with states, getting an *intensive actualization* reading (e.g., *Está sabiendo demasido*, lit.: 'She is knowing too much'), or a *gradual* interpretation (e.g., *Se está pareciendo a su padre* 'He is starting to look like his father'). Another claim is that the periphrasis does not express the *habitual* reading, unless it is restricted to a definite time period (e.g., *Estamos viviendo en los suburbios* 'We are living in the suburbs'). However, since it can co-occur with frequency adverbs, such as *siempre* 'always' or *todos los días* 'every day', these cases are also considered by Yllera (1999) to convey an *intensification* reading (e.g., *Siempre te estás quejando* 'You are always complaining'). When it occurs with punctual predicates, it takes an *iterative* reading (e.g., *Ana está disparando el arma* 'Ana is shooting the gun') or it indicates that the completion of the event is imminent (e.g., *Andrés está alcanzando la cima de la montaña* 'Andrew is reaching the top of the mountain'). Finally, Yllera (1999) also points out that both *negatives* and *interrogatives* sentences disfavor the appearance of the Present Progressive marker, unless rectifying a previous utterance that also contains the same form.

The main shortcoming of this set of characterizations of the distribution of the Present Progressive marker and the Simple Present marker is that they do not provide testable generalizations. They describe the empirical domain at the functional level, but they do not provide either clear semantic characterizations of the meanings of the *progressive* and the *imperfective* or lexical entries for the markers. Nevertheless, as informal as these characterizations may be, one common and useful intuition they present is that the Present Progressive marker and the Simple Present marker are not in free variation, but their use is constrained by contextual features.

2.4 Some diachronic observations

The Simple Present marker and the Present Progressive marker in Spanish are also diachronically related. This relationship can be construed as reflecting the PROGRESSIVE-to-IMPERFECTIVE shift, a trajectory in which progressive markers (e.g., the Present Progressive) appear in a language and slowly encroach into the functional domain of use of more general imperfective ones (e.g., the Simple Present).

Through a series of corpus studies, Torres Cacoullos (2000 *et seq.*) tracks the origin and development of the different gerundive periphrasis of Spanish. These are constructions that were originally constituted by a main lexical verb (e.g., *estar*, 'to be', *venir* 'to come', *ir* 'to go') and the gerund, the non-finite verbal form ending in *-ndo*. Over time, these constructions grammaticalized, becoming verbal periphrases, and the finite form lost part of its lexical meaning and became an auxiliary. All these periphrastic constructions show some amount of semantic overlap, since they all developed from lexical spatial expressions and diachronically competed as devices to convey *progressive* aspect. However, since the finite form in the periphrasis always conserves some amount of its original lexical meaning, these periphrases retained some meaning nuances from the source construction in which these auxiliary verbs functioned as main verbs. This is known as the *retention* (Bybee & Pagliuca 1987) or *persistence* (Hopper 1991) hypothesis. In this way, the Present Progressive, which has *estar* 'to be' as its auxiliary verb, would have been originally restricted to occur with

locative predicates —different from the construction with *ir* 'go', for example, which would occur with directional activities.

In the case of *estar* + gerund, the requirement to combine with a locative predicate diminished over time, and the marker generalized to more contexts, specifically to mark an *aspectual distinction* with the Simple Present marker. Torres Cacoullos (2008, 2009, 2012) presents evidence that the Present Progressive marker has specialized or conventionalized to express the *event-in-progress* reading in most if not all contexts, and that its alternation with the Simple Present marker in the expression of this reading is nowadays very reduced. Furthermore, these studies also show that the frequency of appearance of the progressive periphrasis has seen a great increment in the last three centuries, restricting the use of the Simple Present marker to non-progressive uses. Finally, Torres Cacoullos (2000) also mentions the constant increase of newer, *habitual* uses of the Present Progressive marker.[2] These uses are described as *experiential* rather than just temporally transitory —that is, as expressing the speaker's viewpoint as noteworthy or personally experienced. We will see in §3.6 that both temporal contingency and noteworthiness can be explained as different facets of the same overarching hypothesis.

In grammaticalization phenomena, we usually observe not only grammaticalization in the meaning of an expression, but also grammaticalization of the form, so that reduction in meaning is paralleled by reduction in phonetic substance. As Torres Cacoullos (2000: 32) points out, phonetic reduction in the form of loss of segmental features is difficult to observe in the case of Spanish, since we are considering mostly written data.[3] Another way of analyzing reduction in form is by looking at the intervening material between the finite verb and the gerund form. An increase in the degree of fusion between the auxiliary and the gerund points to a higher degree of grammaticalization. In this process, two independent

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[2]However, while in her 2000 book, Torres Cacoullos claims that the Present Progressive arises to signal the *event-in-progress* reading and slowly acquires *habitual* uses, in her 2012 article, she shows that *habitual* uses of the Present Progressive marker are available since the recruitment of this marker. Under this latter account, the marker specializes for the *event-in-progress* reading around the 17th century, and then again gets extended to the expression of *habituals* in present-day Spanish.

[3]An interesting pattern can be seen, however, in the uses in which speakers drop the first syllable of the auxiliary verb when using the Present Progressive periphrasis in present-day Spanish, such as in *(es)toy comiendo* 'I am eating' or *(es)tá yendo* 'she is going'. However, this could also be a more generalized process of phonetic reduction of /es-/ word beginnings, since we usually also find it in imperatives such as *(es)perá* 'Wait!' or *(es)cuchá* 'Listen!'. It would be interesting to study whether one of these phonetic reductions is an analogical process on the basis of the other.

lexical items become a periphrastic, constructional unit. Over time, Spanish does show a decrease in the amount of intervening material between *estar* and the gerund, confirming in the morphology what we observe in the semantics.

In summary, from a diachronic perspective, we observe that the distribution of these markers within the Spanish Imperfective domain has been changing over time —a change that has been guided by the presence or absence of some contextual elements. As the Present Progressive marker increases in frequency, develops an aspectual opposition with the Simple Present, and conventionalizes in the expression of the *event-in-progress* reading, its dependence on co-occurring locatives decreases, suggesting that the meaning of these contextual elements has been incorporated into the core meaning of the construction (Torres Cacoullos 2012). On the other hand, newer uses, such as the *habitual* reading of the Present Progressive marker, seem to rely on the co-occurrence of different contextual elements, such as the noteworthiness of the event from the speaker's point of view (Torres Cacoullos 2000). Taking into account both of these findings, but also incorporating a set of hypotheses that look at the role of the larger situational context, Chapter 4 examines the forces that influence the diachronic trajectories of these markers and lead to the distributions that are observed at different points in time, finally bringing about the current distribution in present-day Spanish.

2.5 Dialectal variation in the Spanish Imperfective domain

Some studies have looked at how different dialectal varieties partition the semantic space of the Imperfective in Spanish. However, the main focus has been in samples of English-Spanish bilinguals or in Spanish learners, trying to assess interference effects between the English Progressive and Imperfective systems and the Spanish ones. In this section, we will review the major findings of these studies, the implications for monolingual grammars, and the observations about variation across dialectal varieties of Spanish. We will also look at other studies that have examined the use of the Present Progressive periphrasis, but in comparison to other gerundive periphrases of Spanish —that is, other periphrases that combine an auxiliary verb with the gerund, such as *ir* 'to go' + gerund, or *venir* 'to

come' + gerund—, instead of in comparison to the Simple Present. Finally, we will go over some studies on copula variation in Spanish (i.e., the variation between the use of *ser* and *estar*, the two copulas of the Spanish system), since *estar* is the auxiliary verb in the Present Progressive periphrasis, and the use of the periphrasis in comparison to the Simple Present marker might be affected by the encroachment of *estar* over *ser* in some dialects (see Sánchez Alonso 2018 for an overview of Spanish copula alternation).

The seminal article on this research is Klein (1980), a study on the alternation between the use of the Simple Present marker and the use of the Present Progressive marker in the expression of the Spanish Imperfective domain in New York City Spanish-English bilinguals in comparison to monolingual Puerto Rico Spanish speakers. The main finding is that there was a higher frequency of use of the Present Progressive marker in New York City speakers, which the author attributes to the influence of the English Imperfective system (a language in which *event-in-progress* readings are almost exclusively expressed by the Present Progressive marker). Interestingly, the paper also shows that non-bilinguals show a contextually-modulated use of the Simple Present marker: when the context disambiguates that the intended reading is the *event-in-progress* one, speakers can rely on the contextual information and use this marker, but when the context does not provide such support, they need to resort to the use of the Present Progressive marker. Therefore, in the cases with contextual support is where she finds the greater difference with bilinguals: while monolingual speakers use the Simple Present marker in these cases, bilinguals tend to use the Present Progressive marker. A shortcoming of this study, though, is that the author does not provide a characterization of the features that are available in the contexts that provide support in disambiguating the *event-in-progress* reading of the Simple Present marker.

Cortés-Torres (2005) also analyzes the use of the Present Progressive periphrasis in the expression of the *event-in-progress* reading in Puerto Rican Spanish, both in the case of Spanish monolinguals and Spanish-English bilinguals. Contrary to Klein (1980), she finds that there is no major difference between monolingual and bilingual speakers, and that the development of the Present Progressive periphrasis in Puerto Rican Spanish just follows the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path without a boost from its contact from English. In this way, the author claims that the Puerto Rican dialect is not different

from other Latin American dialects —though she does not clarify which are those. Márquez Martínez (2009) finds similar results to Cortés-Torres (2005), but studying a population even more similar to Klein (1980). In his study, the Puerto Rican bilinguals were residing in New York City, but they did not behave significantly different from the Puerto Rican Spanish monolinguals in their alternation between the use of the Simple Present marker and the use of the Present Progressive marker. The most striking fact in both these papers is that both Spanish monolinguals and Spanish-English bilinguals only use the Present Progressive marker to convey the *event-in-progress* reading in 24% of the cases, while using the Simple Present marker in the remaining 76%. This demonstrates that the Spanish system is very different from the English one, in which the use of the Present Progressive marker for the *event-in-progress* reading is almost categorical.

There are other studies that do support Klein's (1980) original findings. Fafulas & Díaz-Campos (2010) shows that one main factor in predicting whether a speaker will express an *event-in-progress* reading with the Present Progressive marker or with the Simple Present marker is their level of bilingualism. Specifically, this study observes that intermediate English-Spanish bilinguals use the Present Progressive marker more than advanced bilinguals (and more than Spanish monolinguals), in line with the results in Klein (1980). These authors consider that these bilingual varieties might be participating in the Spanish-internal PROGRESSIVE-to-IMPERFECTIVE shift, but also getting a boost in that process from the English influence. However, in an expansion of that study with more participants, Fafulas (2012) finds no main effect of bilingualism in predicting which marker will express the *event-in-progress* reading, making it hard to interpret the previous results. There is also no effect of English transference in a study of English native speakers who were learning Spanish as a second language. These speakers show a similar distributional pattern between the Present Progressive marker and the Simple Present marker to a comparison group of native speakers of Spanish (Geeslin & Fafulas 2012).

With respect to the studies that look at the rate of use of different gerundive periphrases in different dialects of Latin American Spanish, Sedano (2000) specifically analyzes the proportions of use of each of these periphrases to convey an *event-in-progress* reading. She finds out that across dialects the most widely used gerundive periphrasis to convey this

reading is the one with *estar* 'to be' as the auxiliary verb, with a minimum of 53% of use in La Habana, Cuba and a maximum of 74% in Bogotá, Colombia. This shows that even if the periphrasis is widely used in Latin America, the rates across dialects are quite different, and the semantic space of the *progressive* might be shared with other periphrases. Fafulas (2015) also provides a comprehensive study of dialectal variation in the use of these periphrases. The author also finds that the most accepted periphrastic construction across dialects for expressing the *event-in-progress* reading is the one with *estar* 'to be' as the auxiliary verb. However, he finds that Mexican native speakers use the Present Progressive marker twice as much as native speakers from Spain. While native speakers from Spain use the periphrasis with *estar* in 8.2% of the cases (with an 81.1% of use of the Simple Present marker), Mexican native speakers use the Present Progressive marker in 15.5% of the cases (with a 76.9% of use of the Simple Present marker). Interestingly, these rates of use of the Present Progressive marker are lower than the ones previously reported in Cortés-Torres (2005) and Márquez Martínez (2009).

Finally, there are some studies that focus on the variation between the use of the two Spanish copulas, *ser* and *estar*. Traditional descriptions of Spanish consider that while *ser* combines with predicates that hold permanently, *estar* combines with predicates that hold at a particular interval of time (Bull 1942, Ramsey 1894, *i.a.*). However, it has been observed that *estar* has been encroaching into the domain of *ser*, though at different rates in different dialectal varieties. For example, Gutiérrez (1992) finds that Mexican Spanish speakers from Michoacán use *estar* in a 16% of the contexts in which *ser* was expected, given that the copula had to combine with a predicate that held permanently. These innovative uses of *estar* are also found by Cortés-Torres (2004) in speakers from the Mexican Central Altiplano, near Mexico City. The study in de Jonge (1993) compares uses of *estar* and *ser* between Peninsular Spanish, Venezuelan Spanish and Mexican Spanish, and finds that the Latin American varieties have a wider distribution of *estar* than their Peninsular counterpart. However, not all Latin American varieties behave in the same way: Malaver (2009) shows that the varieties of Mexico City, Caracas (Venezuela), and Guatemala City have a wider distribution of *estar* than the varieties spoken in Montevideo (Uruguay) and San Juan (Puerto Rico).

In summary, we observe that across different dialects of Spanish, there is variation in: a) the use of the Present Progressive marker in comparison to the Simple Present marker to express the *event-in-progress* reading, and b) between the Present Progressive marker and other periphrastic constructions that combine an auxiliary verb with the gerund. Moreover, we also observe that copula distribution is heterogeneous across Spanish dialectal varieties, which can have an effect on the partitioning of the Spanish Imperfective domain. Since the Present Progressive marker includes *estar* as its auxiliary verb, a wider distribution of *estar* over *ser* in a specific dialectal variety predicts a wider distribution of the Present Progressive marker over the Simple Present marker in that same variety.

2.6   Summary

After looking at the research that has studied the Spanish Imperfective domain from a variety of perspectives (synchronic, diachronic, and variationist), we are left with some concrete facts about the phenomenon, but also with some unsolved problems. There is a two-by-two marker-meaning mapping in the Spanish Imperfective domain: both the Simple Present marker and the Present Progressive marker can each optionally convey the *event-in-progress* reading and the *habitual* reading. Most studies, however, recognize that this alternation is not free. There are preferences in the use of each marker —the Present Progressive marker is the preferred way to convey an *event-in-progress* reading while the Simple Present marker is the preferred way to convey a *habitual* reading—, suggesting that there might be independent forces at work in the contexts that constrain this variability. Forecasting the acceptability judgments tasks in Chapter 5 and Chapter 6, the mean rating across participants (n = 240) in different dialects of Spanish for the Present Progressive marker in the expression of the *event-in-progress* reading is 4.64 on a scale from 1 to 5, while the Simple Present marker gets a mean rating of 3.71. When it comes to the *habitual* reading, the pattern is the opposite: the Simple Present marker gets a mean rating of 4.62, while the Present Progressive marker gets a mean rating of 3.94. This demonstrates empirically that the aforementioned preferences are real. I further show in those chapters that those mean ratings actually carry much more information, since in those means we are

collapsing relevant differences about the contexts in which these markers are interpreted, and the dialectal variety spoken by the participants in the studies.

We have also seen in this chapter that the Present Progressive marker and the Simple Present marker are diachronically related, and that their distribution within the Spanish Imperfective domain has been changing over time. An account of their synchronic distribution needs to consider this relationship in much more detail. In Chapter 4, I look at different time periods of Spanish data (12th to 15th century, 17th century, and 21st century) to explore the factors that enable the changes in the distribution between the use of these two markers over time. As a preview —and, again, collapsing the relevant contextual factors—, we see an increase in the use of the Present Progressive marker over time: while in the 12-15th century period, the marker has a frequency of 7.19 per 100,000 words, this frequency increases to 19.28 in the 17th century, and reaches 132.34 by the 21st century. These frequencies are in line with the ones in Torres Cacoullos (2012), who finds a frequency of 2 per 100,000 words in the 13th century, 30 in the 17th century, and 81 in the 20th century.

Finally, in this chapter we have also looked at how different dialectal varieties of Spanish have slightly different distributions of the Simple Present marker and the Present Progressive marker to convey the different readings of the Spanish Imperfective domain. However, most of the studies that introduce these dialectal differences neither distinguish between the readings of the Imperfective domain that might be under evaluation, nor point to specific contextual constraints that trigger the appearance of one marker or the other.[4] In Chapter 5 and Chapter 6, I analyze the synchronic distribution of these markers across different dialectal varieties and explain the observed patterns in a principled way.

In summary, we still need to solve the puzzle of the Spanish Imperfective domain, taking into account the diachronic relationship between the Present Progressive marker and the Simple Present marker, and the differences that are observed across dialectal varieties. We can expect the synchronic variation across dialects to be constrained by the possibili-

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[4]Some studies focus on the lexical aspect of the predicate as a constraint, and do mention that the Present Progressive tends to appear with activities, and that the Simple Present appears with stative predicates. However, these studies fail at considering which reading within the Imperfective domain the markers are conveying in those cases (Cortés-Torres 2005, Fafulas 2012, 2015; Fafulas & Díaz-Campos 2010).

ties allowed by the diachronic development of these markers. Thus, the ingredients for an overarching solution should be: (a), a unified analysis of the PROGRESSIVE and the IMPERFECTIVE meanings that explains the logical relation between them; (b), a proposal about a shared conceptual structure that grounds the process of change between the markers that convey these meanings; (c), a principled account of the diachronic relationship between the different meanings and readings of the Imperfective domain; (d), an explanation about the communicative and cognitive forces that are at play in the **recruitment** of the Present Progressive marker, and in the **categoricalization** between this marker and the Simple Present for exclusive readings; and (e), an account of the pressures that play a role in the **generalization** process of the Present Progressive marker to *habitual* readings. The following chapter addresses each of these points in detail.

Chapter 3

A semantic-pragmatic analysis of the Progressive-to-Imperfective shift in Spanish

3.1 Introduction

In this chapter I present the different components of an account that explains the distribution of the Simple Present marker and the Present Progressive marker in Spanish from both a synchronic and a diachronic perspective. First, a unified analysis of PROGRESSIVE and IMPERFECTIVE meanings (Deo 2009, 2015) is introduced, together with a diachronic account of the grammaticalization path that relates these meanings: the PROGRESSIVE-to-IMPERFECTIVE shift (Deo 2015). Drawing on the synchronic analysis, I present a proposal for a shared conceptual structure between these meanings, which is necessary to ground the process of variation and change that we observe. Based on the stages for the grammaticalization path proposed in Deo (2015), I advance two main hypotheses: one hypothesis to address the **recruitment** of a Present Progressive marker in the Spanish Imperfective domain and its slow **categoricalization** for the *event-in-progress* reading (in competition with the Simple Present marker), and one hypothesis that explores the factors at play in the **generalization** process to *habitual* readings that is experienced by the Present Progressive marker in Spanish.

3.2 A unified account of Progressives and Imperfectives

A first step in solving the distributional puzzle of the Spanish Present Progressive and Simple Present markers is to provide clear characterizations of the semantics of the PROGRESSIVE and the IMPERFECTIVE meanings. Most research on the semantics of the PROGRESSIVE has

been done with respect to the English Progressive.[1] The majority of the accounts assume a modal approach, claiming that the *progressive* creates an intensional context, relating an actual event in progress in the current world with a possibly completed one in every *inertia world*; that is, in every world that continues the current world beyond the time of evaluation in ways that are compatible with the normal course of events up until that time (Dowty 1977, Landman 1992, Portner 1998, *i.a.*).[2]

A proposal that clearly links the meanings of the IMPERFECTIVE and the PROGRESSIVE is presented in Deo (2009). It is observed that the PROGRESSIVE is as a subtype of the IMPERFECTIVE, given the different available readings across languages (Kurylowicz 1964). While exponents of the PROGRESSIVE are typically associated with the *event-in-progress* reading, exponents of the IMPERFECTIVE operator can usually convey not only the *event-in-progress* reading, but also the *habitual* reading and the *continuous* one (when combined with stative predicates). Under Deo's (2009) account, PROG and IMPF are two distinct operators that apply to predicates of eventualities denoted by sentence radicals (or to predicates of intervals if an aspectual operator, such as negation or a frequency adverb, has already applied to the sentence radical), and return a set of intervals relative to which these predicates are instantiated. Then, tense operators map these predicates of intervals to propositions, instantiating these predicates at reference time.

Both operators contain a universal quantifier whose domain of quantification is a regular partition of an interval —i.e., a (non-empty) set of collectively exhaustive, non-overlapping, equimeasured subsets of that interval— against which the instantiation of a given predicate is evaluated regarding its distribution over time. The notion of instantiation of a predicate over cells of a *regular partition* of an interval captures the notion of a regular distribution over time that obtains with utterances with imperfective aspect. Key to this analysis is that the *measure* of the regular partition, which determines the value of each cell of the partition, is a free variable with a contextually determined value.[3] The different readings

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[1] An approach to the Spanish Imperfective domain is found in Cipria & Roberts (2000), though their analysis focuses on the aspectual alternation between the two simple past-tenses in Spanish, the *imperfecto*, or imperfective past, and the *pretérito*, or perfective past.

[2] For a non-modal approach, which relies on two relations over eventualities —*culmination* and *holding*— see, for instance, Parsons (1989).

[3] In Deo (2015), a clarification is made by which the context-dependence of the partition-measure follows from the measure of the interval and the event description.

observed in the Imperfective domain are thus the result of different values of the measure of the partition in different contexts. Given that this partition-measure is context-dependent, we will see that this measure can be provided by situational context.

The contrast between the IMPERFECTIVE and the PROGRESSIVE operators also emerges from their respective domains of quantification: while in the case of the PROGRESSIVE operator the domain of quantification is a regular partition of the reference interval —that is, the predicate stands in a Coincidence (COIN) relation[4] with cells of a regular partition of the reference interval—, in the case of the IMPERFECTIVE operator, the domain of quantification is a regular partition of a *superinterval* of the reference interval —that is, the predicate stands in a Coincidence relation with cells of a regular partition of a superinterval of the reference interval. Thus, in the case of *eventive* predicates, the PROGRESSIVE is a semantically narrower version of the IMPERFECTIVE, given that a proposition under the scope of the PROGRESSIVE operator *asymmetrically entails* that proposition under the IMPERFECTIVE one, since the reference interval is always a subinterval of a superinterval thereof.

The formal representations for each of these operators, taken from Deo (2015), are given below in (3) and (4):

(3) $PROG : \lambda P \lambda i \lambda w. \forall j[j \in \mathscr{R}_i^c \rightarrow COIN\ (P, j, w)]$

(4) $IMPF : \lambda P \lambda i \lambda w. \exists j[i \subseteq_{ini} j \wedge \forall k[k \in \mathscr{R}_j^c \rightarrow COIN\ (P, k, w)]]$

The PROG operator combines with a predicate of eventualities or intervals P, an interval i, and a world of evaluation w, and returns the proposition that every cell j of a regular partition of i coincides with P in w. The IMPF operator, in turn, combines with a predicate of eventualities or intervals P, an interval i, and a world of evaluation w, and returns the

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[4]The Coincidence (COIN) relation is defined as follows: "a predicate of events stands in the coincidence relation with an interval i and a world w if and only if P is instantiated in every inertial alternative of w within i or at some superinterval of i [...] A predicate of intervals or of states stands in the coincidence relation with i and w if and only if the predicate holds throughout i in w." (Deo 2015: 11). Inertia worlds are understood as in Dowty (1977); i.e., as the worlds that continue beyond i in ways that are compatible with the regular course of events until i. Inertia worlds thus allow the Coincidence relation to avoid the Imperfective Paradox. Throughout this dissertation, this is the definition of the Coincidence relation that I assume.

proposition that there is some interval j that continues i such that every cell k of a regular partition of j coincides with P in w.

This relation has some pragmatic effects that can be explained in terms of a *privative opposition* in which <PROG, IMPF> form a Horn scale, with PROG being the stronger term, since it has a more specific semantics that entails the semantics of the weaker alternative IMPF in the case of eventive predicates. Under this analysis, when a speaker chooses to use a marker that encodes PROG, such as the English Present Progressive marker, she expresses an *event-in-progress* reading. Conversely, when she chooses the English Simple Present marker, the pragmatic inference is that she was not in a position to choose the stronger alternative —viz., the Present Progressive marker—, so that she might be conveying that the proposition under the scope of the operator is compatible with the other *imperfective* readings, but not with the *event-in-progress* one. Therefore, the Simple Present marker is interpreted as only conveying a *habitual* or a *continuous* reading by pragmatic inferencing. Thus, when a language has a specific grammatical device to express PROG, it blocks the availability of an *event-in-progress* reading of a marker that encodes IMPF when combined with eventive predicates.

In what follows, I describe some examples of how the process of composition takes place according to Deo (2009, 2015). When the PROG operator combines with a predicate of eventualities, it returns the proposition that there is some reference interval such that every cell of a regular partition of that reference interval coincides with the predicate. Moreover, the *partition measure* is set by context to an infinitesimal length, which gives rise to the *event-in-progress* reading. So, in a PROG-marked sentence such as (1a), repeated below as (5), the 'smoking' event is said to coincide with every cell of a regular partition of the reference interval; that is, its regular distribution over time resides in that it extends over every small-enough subset of the reference interval:

(5) Ana est-á   fumando   ahora.
    Ana be-PRS.3.SG smoke-PROG now
    'Ana is smoking now.'

By contrast, when the IMPF operator combines with a predicate, it returns the proposition that there is a superinterval of the reference interval such that every cell of a regular

partition of that superinterval coincides with the predicate. When the *partition measure* is set by context to a larger length, it gives rise to the *habitual* reading. So, in an IMPF-marked sentence such as (2b), repeated below as (6), the 'smoking' event coincides with every cell of a regular partition of a superinterval of the reference interval. Its regular distribution over time resides in that the event is instantiated at every cell given by the partition-measure of that superinterval (i.e., *ten times a day*):

(6) Ana fum-a   diez cigarrillos por día.
   Ana smoke-PRS.3.SG ten cigarettes a day
   'Ana smokes ten cigarettes a day.'

When the IMPF operator applies to a predicate of events and the context provides an infinitesimal *partition-measure* for the regular partition, the reading obtained is that the event is instantiated at every infinitesimal part of the interval. This is the *event-in-progress* reading that IMPF may generate in IMPF-marked sentences, such as in (1b), repeated below as (7):

(7) Ana fum-a   ahora.
   Ana smoke-PRS.3.SG now
   'Ana is smoking now.'

Finally, for an account like Deo (2009, 2015), the composition process of sentences like (2a), repeated below as (8) involves a *temporal contingence* inference.

(8) Ana est-á   fuma-ndo diez cigarillos por día.
   Ana be-PRS.3.SG smoke-PROG ten cigarettes a day
   'Ana is smoking ten cigarettes a day.'

When treating these uses of Progressive markers, in which the event does not necessarily overlap with the reference interval, the event is supposed to be interpreted with a *habitual* reading that invites the inference that the event is temporally contingent. The proposal is that the use of a Progressive marker in these cases gives rise to a Manner implicature, given that the speaker did not chose the simpler form —viz., the Simple Present marker— to express this reading. Thus, the hearer needs to reason that the speaker does not have evidence that the predicate holds beyond the reference interval (as in a standard *habitual* reading), inviting the temporal contingence inference.

In summary, the *habitual* reading and the *event-in-progress* reading of a marker that encodes the IMPERFECTIVE operator, such as the English Simple Present marker, depend on the context in which the sentence is uttered. In the case of the *event-in-progress* reading, the *partition measure* is set by context to an infinitesimally small length, and the predicate instantiates at every small-enough cell of a regular partition of this interval. When the predicate is instantiated at larger cells of a regular partition of a superinterval of the reference interval, the *habitual* reading obtains. In the case of markers that map to the PROGRESSIVE operator, the *event-in-progress* reading obtains by default, since the predicate instantiates at small-enough cells of a regular partition of the reference interval. In turn, the *habitual* reading of Progressive markers —with a temporal contingency inference— obtains by pragmatic reasoning.

This model, however, neither makes predictions regarding the observed variation between exponents of the PROGRESSIVE and the IMPERFECTIVE operators at various synchronic stages over the course of a diachronic change, nor does it specify the contextual factors that ultimately support the transition between sub-stages of the change. To address these issues, we will first need to conceptually ground this proposal, allowing us to make behavioral predictions for synchronic variation, which will be the bases for the crucial steps within the larger pathway of change.

3.3   A shared conceptual structure for Imperfectivity

The subset organization between the PROGRESSIVE and IMPERFECTIVE meanings described in the previous section has communicative implications that can be observable in specific usage patterns. Specifically, I propose that the interval structure that underlies both operators constitutes a unified conceptual structure whose variables are the interval under consideration and the measure of the regular partition. The status of *conceptual structure* for this meaning structure manifests a deeper claim: this unified meaning is not a linguistic device, but a substructure of a larger nonlinguistic cognitive system to which language has access through imperfective and progressive markers. This account makes both operators different instantiations of the same conceptual structure, different perspectives on the

same meaning —the meaning structure of Imperfectivity— which, depending on the interval under consideration and the measure of the cells of its regular partition, give rise to the *event-in-progress* or the *habitual* reading when combined with predicates of eventualities or predicates of intervals.

As mentioned above, in the case of the PROGRESSIVE operator, the domain of quantification is the reference interval. From a processing perspective, when the hearer comprehends a sentence with an *event-in-progress* reading, the marker triggers the representation of an interval i, the reference interval. This interval, by definition, is constituted by regular partitions j. Then, the task for the hearer's parser is to map the associated proposition P under the scope of the PROGRESSIVE operator to every regular partition j of that interval i in that world of evaluation w, making it coincide with them, as it can be observed in Figure 3.1.
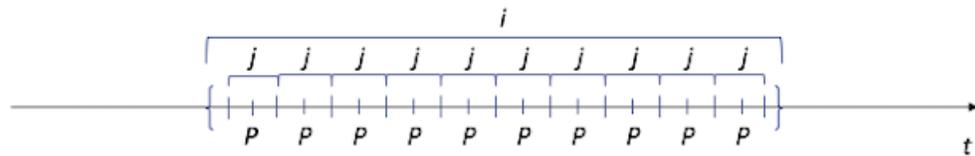
Figure 3.1: A graphic representation of the PROGRESSIVE operator from a communicative/cognitive perspective.

For example, in the case of the sentences in (1), *Ana está fumando ahora* or *Ana fuma ahora*, both meaning 'Ana is smoking now', the parser will map the predicate of eventualities denoted by the sentence radical [Smoke(Ana)] to every regular partition j of the reference interval i in the world of evaluation w, making it coincide with them, as it can be observed in Figure 3.2.
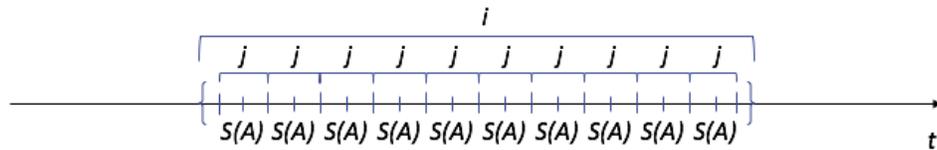
Figure 3.2: The representation of *Ana está fumando ahora* or *Ana fuma ahora* 'Ana is smoking now' from a communicative/cognitive perspective.

In the case of the IMPERFECTIVE operator, the domain of the quantifier is a superinterval of the reference interval. This allows for the appearance of the *habitual* reading. From the perspective of communication, when a hearer receives a sentence with a *habitual* reading, the marker not only triggers the representation of an interval —the reference interval i—, but also of an associated superinterval thereof; namely, the superinterval j. Just like the reference interval, this superinterval is constituted by regular partitions k. The role of the hearer's parser in this case is to map the proposition P under the scope of the IMPERFECTIVE operator to every regular partition k of that superinterval j in that world of evaluation w, making it coincide with them, as it can be seen in Figure 3.3.
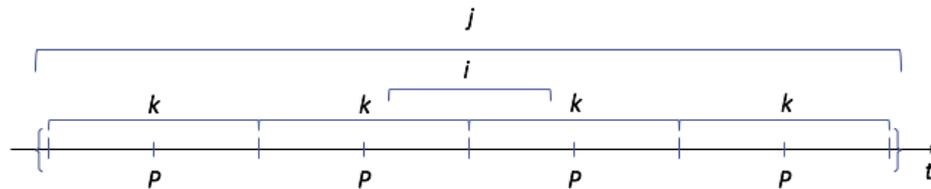
Figure 3.3: A graphic representation of the IMPERFECTIVE operator from a communicative/cognitive perspective.

For instance, if we consider the cases in (2), *Ana está fumando diez cigarrilos por día* or *Ana fuma diez cigarrillos por día*, both meaning 'Ana is smoking/smokes ten cigarettes a day', the parser will map the predicate of eventualities denoted by the sentence radical [Smoke(Ana)] to every regular partition k of the superinterval j of the reference interval i in the world of evaluation w, making it coincide with them, as it can be observed in Figure 3.4 below.
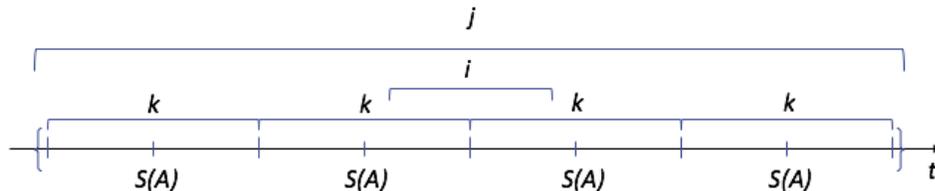
Figure 3.4: The representation of *Ana está fumando diez cigarrillos por día* or *Ana fuma diez cigarrillos por día* 'Ana is smoking/smokes ten cigarettes a day' from a communicative/cognitive perspective.

Therefore, both readings of the Imperfective domain —the *event-in-progress* reading and the *habitual* reading— appeal to the same meaning structure, which simply indicates that a predicate of eventualities or a predicate of intervals coincides with every cell of a regular partition of an interval. The readings differ in what aspects of the meaning structure each of them makes salient; that is, in the angle of the conceptual structure that is targeted. While the *habitual* reading has a "wide angle", targeting both levels within the conceptual representation (the reference interval and a superinterval thereof), the *event-in-progress* reading has a "narrow angle", targeting instead the reference interval alone. A visual representation of the unified conceptual structure is presented in Figure 3.5.
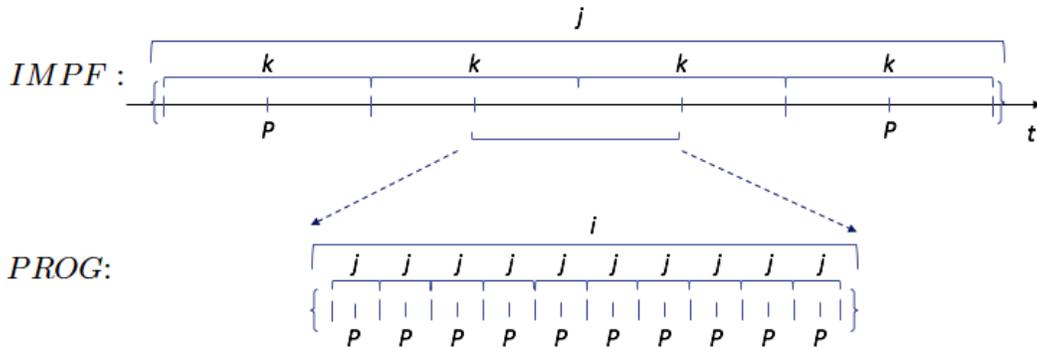
Figure 3.5: The shared meaning structure of the PROGRESSIVE and the IMPERFECTIVE operators.

I propose that the operationalized meanings put forth by Deo (2009, 2015) are in fact two angles —reflected by each of the operators— of one underlying conceptual structure that has two variables: the interval it considers, and the measure of each cell of the regular partition. Which value is given to which variable will determine the linguistic reading: *event-in-progress* or *habitual*. Part and parcel of this unification is the idea that imperfectivity itself is not linguistic in nature, but part of a larger nonlinguistic cognitive structure to which lexicalization processes have access. This proposal simplifies the meaning/reading distribution puzzle and provides cognitive grounding for a possible solution. There is one conceptual structure that is accessed by different lexical markers —e.g., the Simple Present marker and the Present Progressive marker— that interact with context to saturate the variables on the structure, giving rise to the specific observed readings. From this, it follows that *any* lexical item that connects to this unified conceptual structure should ultimately

be able to convey either reading at any point of its diachronic development, and, moreover, that the Present Progressive marker does not map to the PROGRESSIVE operator alone (to the exclusion of the IMPERFECTIVE one). This is a strong prediction that I will test in Chapter 4 through the use of corpus studies across different time periods of Spanish, and in Chapters 5 and 6 through experimental techniques.

As a small preview, this is indeed what we observe in Spanish. Spanish used to have only one marker to express the *event-in-progress* reading and the *habitual* reading —the Simple Present marker— until the 12th century, when a previously locative construction (*estar* 'to be' + location + gerund) was recruited for the expression of the *event-in-progress* reading. This newer construction lost over time the need for an intervening locative prepositional phrase, and became the Present Progressive marker. However, since its appearance in the language, this marker has also been able to convey a *habitual* reading, as in (9), from the *Libro de Buen Amor* (14th century):

(9)   Dixo el abutarda: "Loca, sandia, vana, siempre **estás chirlando** locura, de mañana; non quiero tu consejo: ¡vete para villana!"
'*And the great bustard said: "Crazy, foolish, vain, you* **are** *always* **talking** *crazy in the mornings. I do not want your advice: go away, villain!*'

This example shows that any marker that appears in the language within the Imperfective domain —even when its main purpose might be the expression of the *event-in-progress* reading— is connected to the shared conceptual structure of Imperfectivity. But before testing the cognitive reality of this conceptual structure further, the next section presents a principled way of understanding the diachronic interplay between the PROGRESSIVE and the IMPERFECTIVE linguistic meanings.

3.4   A diachronic relation between PROG and IMPF

To understand the diachronic relation between two markers that participate in a grammaticalization path, it is necessary to characterize the shift in a series of (sub)-stages. The Simple Present marker and the Present Progressive marker of Spanish are diachronically re-

lated in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path. This shift has been attested in different languages and language families, such as Turkish (Göksel & Kerslake 2005), Tigre (Raz 1983), and some Indo-Aryan languages (Deo 2006). Within the grammaticalization literature, it is a well-attested fact that progressive markers are innovated in an existing linguistic system, coexist in variation with priorly existing imperfective markers, and gradually "become" the general imperfective marker, ousting the older imperfective one (e.g., Bybee et al. 1994, Comrie 1976, *i.a.*). Deo (2015) describes this process as a series of subsequent stages:

1. A *context-dependent* stage, in which there is only one marker X that expresses all IMPERFECTIVE readings (viz., *event-in-progress*, *habitual*, and *continuous*), which are disambiguated by context. In Spanish, this used to be the Simple Present marker.

2. A *partially context-dependent* stage, in which a new marker Y appears in the language to optionally express the *event-in-progress* reading in some contexts, while the marker X can still be used in all contexts to express all the readings. This new marker in Spanish was the Present Progressive marker.

3. An *explicit marking* stage, in which the new marker Y becomes obligatory to express the *event-in-progress* reading, and thus restricts marker X to express only the remaining IMPERFECTIVE readings by *semantic blocking* —that is, marker X gets associated to contexts in which marker Y cannot occur, such as the expression of the *habitual* and the *continuous* readings.

4. A new *context-dependent'* stage, in which marker Y generalizes to all contexts and becomes the only marker that expresses all IMPERFECTIVE readings. This stage is equivalent to the first one and lasts until a new marker Z arises in the language starting the cycle again.

Given these stages, three diachronic transitions can be considered: the **recruitment** of a new device in the language to express the *event-in-progress* reading; the **categoricalization** of this innovated marker, which becomes obligatory in certain contexts, and restricts the available readings for the old marker; and the **generalization** of the innovated marker to all contexts and to the wider domain of all IMPERFECTIVE readings.

But how do such transitions actually proceed? Deo (2015) proposes that they are guided by the preferred communicative strategies of speakers and hearers at different points in time. One may take assertions in the Imperfective domain to refer either to events that **occur** at reference time, presenting the *event-in-progress* reading (e.g., *Ana is smoking*) or to events that **describe** the world at a given reference time, displaying the *habitual* reading (e.g., *Ana smokes*). This characterization is in line with the *phenomenal/structural* distinction in Goldsmith & Woisetschlaeger (1982). These authors claim that language (and the conceptual system that underlies it) distinguishes between properties that hold contingently of the world, or *phenomena*, and properties that hold non-contingently of the world, or its *structure*. They show that Progressive markers are usually employed to describe *phenomena* and Simple Present markers are used to talk about the *structure* of the world. This *conceptual* distinction triggers the appearance and development of a *linguistic* contrast, whereby the emergence of a marker to signal the *event-in-progress* reading, and its gradual grammaticalization, is induced and maintained by a functional pressure to conventionally express the reading that makes reference to the *here and now*.

Thus, the process of **recruitment** of a marker for the *event-in-progress* reading takes place in a language in a ***context-dependent*** stage, which disambiguates between these two types of assertion by relying on shared contextual information between speaker and hearer. This strategy, however, does not guarantee communicative success; the inherent ambiguity of a single marker can result in misunderstandings triggered by possible mismatches in the contextual assessment of the speaker and that of the hearer. Disambiguation in such a system can be achieved either through features of the situational context or through the use of adverbials that explicitly indicate which of the two readings is the intended one (e.g., *now* for the *event-in-progress* reading vs. *every day* for the *habitual* reading).

At some point —and given that pragmatic enrichment is not always successful in disambiguating readings—, the use of adverbials or other markers that make salient the *event-in-progress* reading will be established as a convention by the speech community. A ***partially context-dependent*** stage is the result of such conventionalization of a grammatical device to disambiguate between the two possible readings. We should remember, however, that this disambiguation is always partial, since the conceptual structure that is accessible

by any grammatical device that lexicalizes these operationalized meanings allows for the availability of both readings. In any case, this new marker serves the purpose of restricting the temporal interpretation of the predicate to an event that occurs at reference time —the *event-in-progress* reading— by focusing on the "narrow angle" of the Imperfective conceptual structure.

The ***explicit marking*** stage defines the period in which the new progressive marker entrenches in the grammar —extending to new syntactic contexts, for instance, such as interrogative and negative sentences—, and becomes the preferred option for referring to events that occur at reference time. In turn, imperfective marking gets restricted to events that characterize the world at reference time by *semantic blocking*. This constitutes the **categoricalization** of the markers: each marker becomes the preferred way to convey a specific reading. Such a system would constitute an optimal solution to the communicational goal of conveying unambiguously the relevant meanings, but the claim here is that such an ideal stage is never completely achieved since the markers are always able to access the whole underlying conceptual structure.

As for the **generalization** of the progressive marker to the remaining IMPERFECTIVE readings, it needs to be necessarily driven by an increase in frequency of use. But why would this increment in frequency occur? Why would speakers abandon a system that distinguishes these readings linguistically? Deo (2015) claims that this is the result of imperfect learning in the course of language acquisition. Children and caregivers would engage more often in conversations that make reference to events that hold contingently of the world, so that the input that children receive has a higher frequency of progressive markers. Given a systematic bias to the acquisition of a "simpler grammar", children would generalize the use of this marker to properties that hold non-contingently of the world, or *habitual* readings. This is one plausible hypothesis, though it is not clear to me why a grammar that has only one marker —but needs to incorporate contextual information into the conceptual representation of the event at issue in order to resolve which is the intended reading that the marker conveys— is *simpler* than a grammar in which there are two markers, but each of them is associated to one reading in a more efficient way. Here I claim that the increase in frequency —which is the precondition for **generalization**— is

actually driven by the inherent ambiguity of the progressive marker, which has the ability to convey a *habitual* reading since its inception in the language. Moreover, the extension to *habitual* readings —and the frequency increase— are due to the greater informational value with which this marker is endowed in comparison to the Simple Present. A more detailed proposal about this process is developed in §3.6.

Now we can reconsider our observations about the Spanish Imperfective domain in §2.2 from a diachronically-informed perspective. Consider again the sentences in (1) and 2, repeated below as (10) and 11:

(10) a. Ana est-á   fuma-ndo   ahora.
          Ana be-PRS.3.SG smoke-PROG now
          'Ana is smoking now.'

      b. Ana fum-a   ahora.
          Ana smoke-PRS.3.SG now
          'Ana is smoking now.'

(11) a. Ana est-á   fuma-ndo   diez cigarillos por día.
          Ana be-PRS.3.SG smoke-PROG ten cigarettes a   day
          'Ana is smoking ten cigarettes a day.'

      b. Ana fum-a   diez cigarrillos por día.
          Ana smoke-PRS.3.SG ten cigarettes a   day
          'Ana smokes ten cigarettes a day.'

On the one hand, these sentences show that the Present Progressive marker in (10a) is the preferred form to express the *event-in-progress* reading in Spanish, while the Simple Present in (10b) is an alternative form that can achieve the same purpose. These data would point to Spanish being in an *partially context-dependent* stage, given that there is a clear morphological exponent for the PROGRESSIVE meaning —that is, the Present Progressive—, which alternates with the more general Simple Present, the grammatical device that maps to the IMPERFECTIVE operator, and can express both the *event-in-progress* and the *habitual* readings.

On the other hand, sentences in (11) show that the Simple Present marker in (11b) is the preferred form to convey a *habitual* reading, but that the Present Progressive marker in (11a) is also able to express it. This distributional pattern would point to an advanced sub-stage

of an *explicit marking* grammar, or to the beginnings of a new *context-dependent'* stage, in which the progressive marker is already encroaching into the more general imperfective domain of the Simple Present.

All things considered, this distribution does not correspond to any of the idealized stages we described above, but it is actually predicted by the one conceptual structure account, in which both markers are expected to be able to convey the *event-in-progress* and the *habitual* readings. The connection between these two readings is that they arise from the same conceptual representation. Diachronically, we find that two simultaneous processes are occurring: **categoricalization** and **generalization**. It seems that a shortcoming of the schematized description of the grammaticalization path is that each stage actually comprises many sub-stages, which differ in more *minimal* ways from their previous and following ones.

Previous studies have shown that the patterns of change are the result of synchronic variation in the distributional patterns of a set of expressions (e.g., Eckardt 2006, Kiparsky & Condoravdi 2006, Schaden 2012, *i.a.*). All these studies show that in the diachronic development of a new expression the **context of interpretation** plays a crucial role. While in early stages, the new expression needs contextual support to convey a particular reading. Later on, its constant association with those contexts gets conventionalized and becomes part of the meaning of the expression. Once that stage is achieved, the new marker does not need that extra contextual support anymore to express the contrast with the older form in the paradigm.

Thus, several process of change could be occurring at the same time, depending on the situational and linguistic contexts in which these markers occur —for instance, the Simple Present marker could still be acceptable *in some contexts* to express the *event-in-progress* reading while the Present Progressive marker might be already acceptable *in some contexts* to express a *habitual* reading. Even if Spanish speakers have preferences for the expression of these readings —suggesting a kind of *explicit marking* stage in the schematized grammaticalization path—, we expect the existence of **contextual factors** to make each of these markers more or less acceptable for each of these readings. If this is correct, the use of each marker for each reading would be conditioned by additional features that have not yet been factored into the model. This could also potentially lead to

a view of the differences across dialectal varieties of Spanish as the diachronic shift at work in different 'synchronic cuts', constraining the possibilities of synchronic variation. **What are the specific contextual factors that modulate this variation?** The hypotheses presented in the following sections intend to explain the features of those contexts and their interactions with the operationalized meanings presented above.

3.5 The Shared Perceptual Access Hypothesis

3.5.1 A context-dependent distribution for the *event-in-progress* reading

Consider the sentence in (12):

(12) Ana fum-a.
      Ana smoke-PRS.3.SG
      'Ana smokes/is smoking.'

In (12), the verb *fumar* 'to smoke' appears conjugated in the Spanish Simple Present marker. In the translation, we see that this form can correspond to either the English Simple Present or the English Present Progressive. What determines its interpretation? The context in which this marker is uttered. Consider the communicative situations in (13) and (14), where the sentence in (12) appears as uttered by a participant B as an answer to a question asked by a participant A:

(13) A: - ¿Qué adicción tiene Ana?

      B: - **Fuma**.

      A: - *What is Ana's addiction?*

      B: - *She **smokes**.*

(14) A: - ¿Qué está haciendo Ana en el jardín?

      B: - **Fuma**.

      A: - *What is Ana doing in the garden?*

      B: - *She **is smoking**.*

In a context such as (13), the intended reading in Spanish is the equivalent to the English Simple Present (a *habitual* reading), while in a context such as (14), the most loyal trans-

lation is the English Present Progressive (an *event-in-progress* reading). As (13) and (14) illustrate, the Spanish Simple Present marker allows for both readings. Its interpretation is determined in these examples by the nature of the question posed by A: in (13), *adicción* 'addiction' suggests a *habitual* reading, whereas in (14), the question posed by A in the Present Progressive (*está haciendo* 'is doing') triggers an *event-in-progress* interpretation of the answer. If we consider once again the sentences in (1), repeated here as (15), we see that both the the Present Progressive marker (15a) and the Simple Present marker (15b) can express the *event-in-progress* reading:

(15) a. Ana est-á   fuma-ndo   ahora.
          Ana be-PRS.3.SG smoke-PROG now

          'Ana is smoking now.'

      b. Ana fum-a   ahora.
          Ana smoke-PRS.3.SG now

          'Ana is smoking now.'

As stated in §2.6, however, native speakers of different Spanish dialects prefer to use the Present Progressive marker (mean rating = 4.64 on a scale from 1 to 5) over the Simple Present marker (mean rating = 3.71 on a scale from 1 to 5) to convey the *event-in-progress* reading. Even when both markers seem to be acceptable, there is a significant preference for the periphrastic construction. Those data thus show that the Present Progressive marker can freely express this reading, but that the use of the Simple Present marker needs some contextual support to convey the same reading.

Moreover, from a diachronic point of view, the fact that the Simple Present marker can still convey the *event-in-progress* reading is what is preventing the full **categoricalization** of the system, and points to a *partially context-dependent* stage in the PROGRESSIVE-to-IMPERFECTIVE shift. So, what are the conditions under which a speaker can rely on the situational context and use the Simple Present form, and when must they be linguistically explicit —by adding a temporal adverb or using a different construction such as the Present Progressive marker— in order to ensure communicative success?

I argue that a speaker can rely on situational context whenever they can safely assume that the addressee already knows some specifics of the message that the speaker will con-

vey; that is, when there is some *shared knowledge* or *common ground* between them that indicates the intended reading (Stalnaker 1978, 2002). During a communicative situation, this assumption is manifested as a speaker's awareness of **_shared perceptual access_** to the event described by the predicate between them and their addressee.[5] This, in a nutshell, is the Shared Perceptual Access hypothesis. This hypothesis intends to explain the distribution of the Present Progressive marker and the Simple Present marker in Spanish when they are conveying an *event-in-progress* reading. I present the foundations and the specifics of the hypothesis in the following subsections.

3.5.2 A communicative perspective

Successful linguistic communication occurs when a speaker utters an expression and a comprehender recognizes the specific meaning that the speaker intended to convey by uttering that expression. If all markers in a linguistic system were in a strict one-to-one correspondence to a meaning, linguistic communication would always be unambiguous. However, that is rarely the case; linguistic markers usually make more than one type of contribution to the composed sentential meaning, leading to different readings of the expressions of which they are part. That is because the markers' associated meanings are encoded in such a way that they demand interaction with a context in order to be properly composed with the other meanings in the expression (e.g., Lewis 1980, Kaplan 1989). The interaction between linguistic meaning and nonlinguistic context is manifested as a tension between how much meaning is predictably associated with a marker (i.e., lexicalized) and how much meaning must be retrieved from the contextual information in the communicative situation.

From the speaker's point of view, this tension reflects two seemingly opposing understandings that she holds in any given communicative situation: (1), there is overlap between the knowledge and beliefs that she shares with her addressee(s), and (2), this overlap is only partial. These opposing understandings create a tension that constrain the form of linguistic communication and of the speaker's message. They underlie the well-known interplay between linguistic *economy* and *expressivity* (Zipf 1949). The interplay works as follows:

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[5]*Shared perceptual access* can also be understood as Clark & Marshall's (1981) *physical copresence* in their study on definite reference interpretation.

the assumption that the intended meaning can be inferred on the basis of what is shared knowledge between speaker and addressee pushes the speaker towards linguistic *economy*; the awareness that this shared knowledge is always incomplete, in turn, pushes the speaker to linguistically encode all of her intended meaning, leading to *expressivity.* This tension appears to be rooted in fundamental human cognitive biases: on the one hand, speakers want to be able to convey specific meanings to their hearers; on the other hand, they want to do so by uttering the least amount of linguistic information, relying instead on the contextual properties that constrain the hearer's interpretation. I propose that this *economy/expressivity* tension can be seen to emerge from two cognitive constructs respectively acting in tandem in the mind of the speaker: Common Ground (Stalnaker 1978, 2002) and Theory of Mind (e.g., Premack & Woodruff 1978, Wellman 1990, Gopnik 1993). Figure 3.6 shows the elements involved and how they connect with one another in the context of a communicative situation viewed from the speaker's perspective.

From this perspective, Common Ground is the knowledge that the speaker assumes to be shared with the addressee; that is, the set of propositions that the speaker takes for granted, and thus form the conversational background with the addressee before a specific communicative act (Stalnaker 1978: 321). By contrast, and in the context of a communicative situation, Theory of Mind refers to the speaker's understanding that the addressee's knowledge will not fully overlap with the speaker's own. Implicit in this understanding is the speaker's ability to track that the addressee might not be experiencing the context to the communicative situation in the same way as the speaker, and therefore that the set of propositions that she (the speaker) can attribute to the addressee before a communicative act is incomplete. In this way, I depart from the usual understanding of Theory of Mind, which takes it to be the speaker's ability to represent the addressee as having a false belief about the world (e.g., Gopnik & Wellman 1992). Instead, I take the crucial components of Theory of Mind to be the following: (a), an ability to track the addressee's representation of the world, and (b), an ability to keep that representation separate from the speaker's own (Phillips & Norby 2019). Under this account, the ability to represent *non-factive* mental states (e.g., beliefs) is not crucial for a genuine capacity of theory of mind —the representation and attribution of factive attitudes (i.e., the addressee's *knowing* or not *knowing*
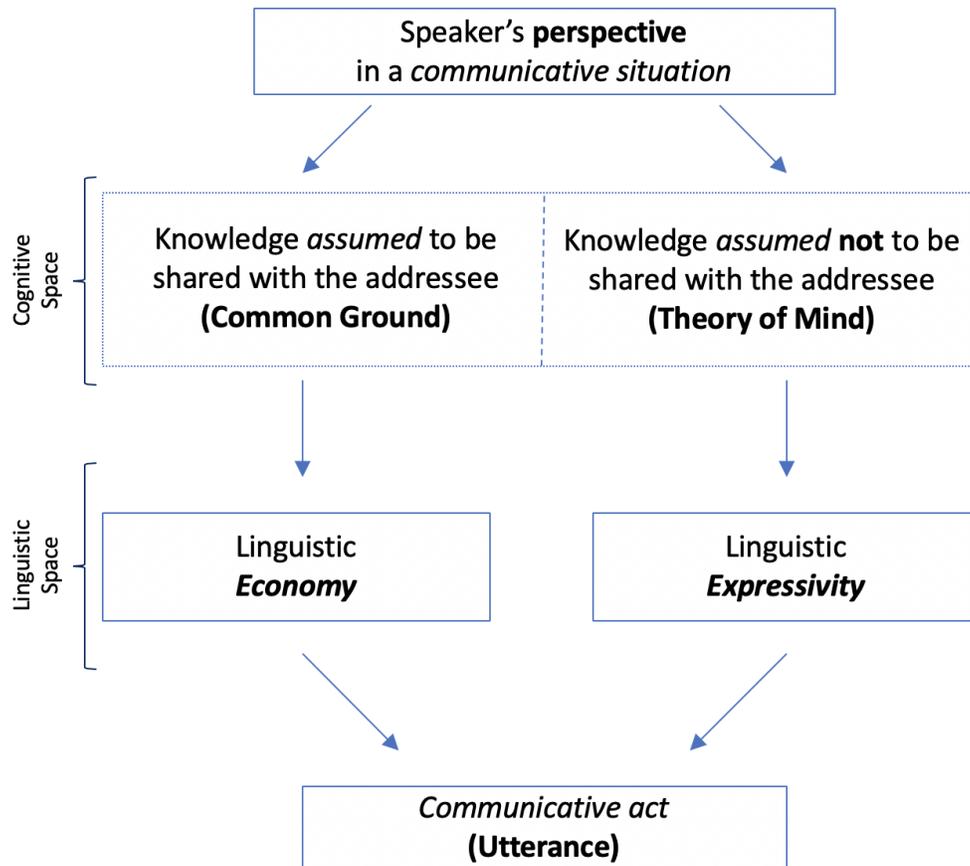
Figure 3.6: Elements at play during a speaker's communicative act.

something) is sufficient.[6] Thus, the tension between Common Ground and Theory of Mind in the mind of the speaker has communicative implications. It leads to the opposition between linguistic *economy* and linguistic *expressivity*, which ultimately gets resolved in the speaker's communicative act and evidences that speaker and addressee normally have distinct perspectives with respect to a given communicative situation.

A measure of communicative success is whether or not the perspective of the addressee has been brought closer to that of the speaker. This I take to be one key goal of linguistic

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[6]Phillips & Norby (2019) further explain the difference between not having a theory of mind, having a ***factive*** theory of mind, and having a ***non-factive*** theory of mind. We can take a representation of the world to be a set of propositions. Then, let M_S be the set of propositions $\{p_1, p_2, ..., p_n\}$ that the speaker takes to be the case, and let M_A be the set of propositions $\{p_1, p_2, ..., p_n\}$ that the speaker represents the addressee is taking to be the case. If one does not have any capacity for theory of mind, then $\forall p : p \in M_A \longleftrightarrow p \in M_S$. If one has a ***factive*** theory of mind, then $\exists p : p \in M_S \land p \notin M_A$, but $\forall p : p \in M_S, \neg p \notin M_A$ and $\forall p : p \in M_A, \neg p \notin M_S$. Finally, if one has a capacity for ***non-factive*** theory of mind, then, $\exists p : p \in M_S \land \neg p \in M_A$.

communication, which I refer to as **Perspective Alignment.** The *perspective* of a speaker is understood as the information that is perceptually available for her from a particular point of view in space (Roberts 2015: 3). This perspective, moreover, is taken to be *doxastic* in that it represents the set of worlds compatible with that individual's beliefs at that time in that world. In a communicative act, the speaker intends to align the hearer's (doxastic) perspective to her own; that is, she intends to make the worlds compatible with the hearer's beliefs more like the worlds compatible with her own beliefs. Achievement of Perspective Alignment is thus similar to a context-update procedure in that it is a process that occurs every time that the addressee accepts the proposition put forth by the speaker. When this occurs, the speaker can assume that the Common Ground has expanded, and that the set of propositions shared with the addressee is larger than before their communicative act. A *linguistic communicative situation* is therefore a process whereby Common Ground between speaker and addressee grows as the perspective of the addressee is brought closer to that of the speaker through the addressee's gradual acceptance of the propositions presented to her by the speaker. A *linguistic communicative act* is the actual linguistic utterance by the speaker seeking to bridge this perspective gap. The choice of linguistic device to achieve this communicative goal can be seen as the result of a calibration between Common Ground (leading to linguistic *economy*) and Theory of Mind (leading to linguistic *expressivity*). I present a proposal about the role of these constructs in the distributional puzzle of the Spanish Imperfective domain in the following subsection.

3.5.3   The contextual requirements for an *event-in-progress* reading

The use of the Simple Present marker or the Present Progressive marker to convey an *event-in-progress* reading in Spanish is thus a direct result of the speaker's calibration between linguistic *economy* and linguistic *expressivity*. I capture the differential use between these markers through the **Shared Perceptual Access Hypothesis**: the claim that the markers are not alternating freely to convey the *event-in-progress* reading, but that the use of these two variants is contextually conditioned by whether the speaker and the hearer in a given communicative situation share perceptual access to the event described by the predicate. As the aggregated data from acceptability judgments in §2.6 show, in present-day Spanish,

the Simple Present marker is already a dispreferred form to convey the *event-in-progress* reading, while the Present Progressive marker has taken over most of the instances where this reading is expressed. According to this hypothesis, the Simple Present marker can be used to convey this reading only when the context guarantees that there is shared perceptual access between speaker and hearer to the event described by the predicate.[7] When this contextual requirement is not met, the speaker needs to use the Present Progressive marker.

Furthermore, this hypothesis is rooted in the interplay of the cognitive factors mentioned in the previous subsection: Theory of Mind and Common Ground. When the speaker can assume that the hearer knows that the event is ongoing, because both of them share perceptual access to the event, and that knowledge is part of their Common Ground, she can use the shorter Simple Present marker, leading to linguistic *economy*. When the speaker, by virtue of her Theory of Mind, realizes that the hearer does not independently know that the event is ongoing, she needs to use the longer, costlier Present Progressive marker, leading to linguistic *expressivity*.

I claim that the expression of an *event-in-progress* reading implicates the alignment of the hearer's perspective to that of the speaker, since the *event-in-progress* reading makes salient the reference interval, conveying information about the *here and now*. This alignment can be obtained both by linguistic and by non-linguistic means. Thus, the tension between the use of the Present Progressive marker and the Simple Present marker in Spanish to convey an *event-in-progress* reading is a direct result of whether the alignment of the speaker's and the hearer's perspectives is already partially guaranteed by non-linguistic means, or whether the speaker needs to use linguistic means to achieve it. Since the Present Progressive marker has become the conventionalized device to express an *event-in-progress* reading, its use linguistically achieves this communicative goal. On the contrary, use of the Simple Present marker to convey the *event-in-progress* reading —and achieve Perspective Alignment— requires contextual support; specifically, in the form of shared perceptual access with the addressee to the event at issue.

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[7]The Simple Present marker can of course also convey the *event-in-progress* reading when there is extra linguistic material that restricts the aspectual interpretation to the reference interval (e.g., the adverb *now*). The focus here is how this marker can express this reading in the absence of additional linguistic resources employed by the speaker.

Under this analysis, the claim is that when intending to convey an *event-in-progress* reading in a language with two distinct markers whose alternation is *contextually determined*, the speaker has either the choice of relying in contextual information and use the Simple Present marker, or the choice of using the Present Progressive marker. In order to felicitously utter a sentence with a Simple Present marker that expresses an *event-in-progress* reading, the speaker needs to know that the hearer has perceptual access to the situation described by the embedded proposition. This condition —*shared perceptual access*— constrains the interpretation to the reference interval, satisfying the requirements of the *event-in-progress* reading, and brings about *perspective alignment* by non-linguistic means. In this way, *shared perceptual access* constitutes an operationalization of the contextual requirements imposed by this reading. If the speaker cannot know whether the hearer has perceptual access to the situation described by the embedded proposition, *perspective alignment* is not guaranteed non-linguistically. In these cases, the speaker needs to be more *expressive* and use additional linguistic resources to convey the *event-in-progress* reading. In present-day Spanish, the conventionalized way to do so is the use of the periphrastic Present Progressive marker. In this way, and as stated above, *perspective alignment* can be obtained both non-linguistically (by contextual information) or linguistically (by use of the Present Progressive marker).

So let us consider again the sentences in (1), repeated here as (16):

(16) a. Ana est-á   fuma-ndo   ahora.
         Ana be-PRS.3.SG smoke-PROG now
         'Ana is smoking now.'

      b. Ana fum-a   ahora.
         Ana smoke-PRS.3.SG now
         'Ana is smoking now.'

In (16a), *perspective alignment* is achieved through the use of the Present Progressive marker, which is the conventionalized marker to convey the *event-in-progress* reading. By contrast, in (16b), *perspective alignment* is not guaranteed linguistically, since the Simple Present marker requires contextual support to convey the *event-in-progress* reading. In

communicative terms, for an *event-in-progress* reading to obtain using the Simple Present marker, *perspective alignment* must be provided alongside through non-linguistic means.

To the extent that the Present Progressive marker can achieve the general communicative goal of *perspective alignment* without appealing to specific contextual settings, it should be the preferred marker to express the *event-in-progress* reading. By contrast, the use of the Simple Present marker to reach *perspective alignment* demands the incorporation of non-linguistic information, which ultimately needs to be integrated into a unified meaning structure. As comprehension progresses, such real-time integration of linguistic and contextual information is arguably computationally costlier. And it is the avoidance of this cost what finally leads speakers to systematically prefer utterances with the Present Progressive marker, driving the PROGRESSIVE-to-IMPERFECTIVE shift from a *partially context-dependent* stage to an *explicit marking* one. I test this analysis through a corpus study in Chapter 4, and through acceptability judgments tasks and self-paced reading studies in different dialects of Spanish in Chapter 5.

3.6 Alternative Circumstances of Evaluation Hypothesis

3.6.1 Introduction

Now, let us consider the sentence in (17):

(17) Ana está   fumando.
      Ana be-PRS.3.SG smoke-PROG
      'Ana is smoking/smokes.'

In (17), the verb *fumar* 'to smoke' appears now conjugated in the Spanish Present Progressive. Even if this form usually corresponds to the English Present Progressive, it can also correspond to the English Simple Present. What determines this possibility? The availability of a specific context. Consider this time the communicative situations in (18) and (19), where the sentence in (17) is said by a participant B as an answer to a question posed by a participant A:

(18)   A: - ¿Qué hace afuera Ana con este frío?

      B: - **Está fumando**.

      A: - *What is Ana doing outside, in this cold weather?*

      B: - *She **is smoking**.*

(19)   A: - ¿Cuánto fuma Ana desde que volvió a fumar?

      B: - **Está fumando diez cigarillos por día**.

      A: - *How much does Ana smoke since she started smoking again?*

      B: - *She **is smoking/smokes** ten cigarettes a day.*

In a context such as (18), the intended reading in Spanish is the equivalent to the English Present Progressive (an *event-in-progress* reading), while in a context such as (19), we could translate the sentence by the English Simple Present, with a *habitual* reading. As (18) and (19) exemplify, the Spanish Present Progressive marker is able to convey both the *event-in-progress* and the *habitual* readings. Its interpretation is determined in these examples by the nature of the question posed by A. On the one hand, in (18), the presence of the demonstrative pronoun *este* 'this' points to an *event-in-progress* reading. On the other hand, in (19), the temporal boundedness suggested by the prepositional phrase *desde que volvió a fumar* 'since she started smoking again', trigger a *habitual* interpretation. These latter contexts produce the reading best described in the literature for the use of the Present Progressive marker when it is not conveying an *event-in-progress* reading: a *habitual* but temporally-contingent reading (e.g., Dowty 1977, King 1992). In the next subsection, I present an account that predicts the availability of those readings for the Present Progressive marker, but also explains *habitual* readings that are not temporally contingent.

3.6.2   The Boundedness Presupposition analysis

To explain why the Present Progressive is able to convey a *habitual* reading, we need to focus on the semantics of *estar*, the auxiliary verb in the progressive periphrasis. This verb alternates in Spanish with another copula verb, *ser*. For instance, consider (20a), with *ser*, and (20b), with *estar*, below:

(20)   a. Ana es   alta.
            Ana be(*ser*)-PRS.3.SG tall

            'Ana is tall.'

      b. Ana está   alta.
            Ana be(*estar*)-PRS.3.SG tall

            'Ana is tall."

Whereas in English both sentences are translated as 'Ana is tall', in Spanish there is a clear difference between (20a) and (20b). The sentence in (20a) only establishes an attributive relation between the individual and the property denoted by the adjective. On the other hand, the sentence in (20b) conveys that the property of 'being tall' is only temporary —Ana could be wearing high heels, or could have grown some inches, but there needs to be a salient time at which the proposition that she is tall does not hold.

The criteria that have been used to account for the copula alternation are varied: ability to combine with stage-level predicates (*estar*) vs. individual-level predicates (*ser*); temporariness (*estar*) vs. permanence (*ser*), etc. (for a review, see Sánchez Alonso 2018, Chapter 3). Some of these analyses have tried to model the distinction by claiming that *estar* has a presuppositional component, which is absent in *ser* (Clements 1988, Maienborn 2005). A full-fledged version of this kind of presuppositional analysis for *estar* is developed in Deo et al. (submitted) and experimentally confirmed in Sánchez Alonso et al. (submitted). This analysis considers that both copulas are identical in their truth-conditional contribution to a sentence —asserting that the prejacent is true at a given circumstance of evaluation—, but that they differ in that *estar* carries a presupposition that *ser* does not. The use of *estar* presupposes that the prejacent is boundedly true at a circumstance of evaluation i. To be *bounded* means that *estar* is only felicitous in contexts in which there are alternative circumstances of evaluation i' distinct from i at which the prejacent is false. So in the sentences in (20), while (20a) only asserts that the property of being tall holds of Ana, (20b) conveys that for the being tall of Ana to be true at the circumstance at which the utterance is expressed, there needs to be a salient alternative circumstance at which that proposition does not hold (for instance, when she is not wearing heels).

Under this analysis, the content that a sentence expresses is a function from circumstances of evaluation to truth-values. This circumstance of evaluation consists of a set of contextual parameters that are relevant to determine the truth of a proposition. Deo et al. (submitted) identify five relevant parameters: worlds (w), times (t), locations (l), agents (a), and contextual standards (d_c), so that a circumstance of evaluation is modeled as a tuple $< w, t, l, a, d_c >$. They introduce a function $Circ$ that assigns to each context c a set of circumstances of evaluation i' such that each $i' \in Circ(c)$ is a relevant circumstance to assess the truth of the sentence in that context c. This means that to evaluate the content of a sentence with *estar*, one needs to consider alternative circumstances of evaluation that are different from the current circumstance. These circumstances are allowed to be different in *only* one parameter —that is, they will be identical circumstances with respect to the value of all parameters p, except for the contextually relevant one p_c.

Once the relevant parameters of a circumstance of evaluation have been delimited, and a way to access a constrained set of circumstances of evaluation for comparison has been defined, it becomes relatively simple to provide lexical entries for *ser* and *estar*. Both copulas combine with a property-denoting expression P and an individual-denoting argument x and assert that the prejacent $P(x)$ is true at the circumstance of evaluation i. The only difference is that *estar* also conveys that the prejacent is true in a *bounded* way; that is, that $P(x)$ is true at a circumstance $i \in Circ(c)$ if and only if it exists a circumstance $i' \in Circ(c)$ such that the circumstance i' is different from i in only one relevant contextual parameter $(i' \neq_{p_c} i)$ and the prejacent is false at that circumstance of evaluation $(P(x)(i') = 0)$.

A context c in which this last condition is met is known as a *Bounded Context* for $P(x)$ and i, and it is notated as $Bound(P(x), c, i)$. With this definition of boundedness, Sánchez Alonso et al. (submitted: 17) propose the following lexical entries for *ser* and *estar*:

(21) $[[ser]]^c = \lambda P_{<s,et>} \lambda x_{<s,e>} \lambda i_s. \ i \in Circ(c) P(x)(i) = 1$

(22) $[[estar]]^c = \lambda P_{<s,et>} \lambda x_{<s,e>} \lambda i_s : Bound(P(x), c, i). \ i \in Circ(c) P(x)(i) = 1$

With this felicity condition for the use of *estar*, we can define contexts in which the use of this copula would be licensed. A speaker requires that she and her interlocutors are able to construct a set of alternative circumstances of evaluation that differ from the current

circumstance of evaluation in one relevant contextual parameter. Speakers and hearers will construct these alternatives situations using contextual information. Therefore, the availability of salient alternative circumstances of evaluation in the contextual information will facilitate and increase the use of *estar*.

3.6.3 Contexts for Present Progressive expression of *habituals*

Since the Present Progressive periphrasis includes the verb *estar*, which carries a presupposition that bounds the truth of the prejacent to a specific discourse situation, we can consider that the use of the Present Progressive will also be subject to this constraint. When conveying an *event-in-progress* reading, a relevant contextual parameter in an alternative circumstance of evaluation that makes the prejacent false is immediately available —namely, the contrast is 'now' vs. 'not-now', providing a different *time* of evaluation at which the proposition does not hold. In the case of *habitual* readings conveyed by the Present Progressive periphrasis, the auxiliary verb requires that the boundedness condition is also met. That is why the most usual *habitual* reading expressed by a Present Progressive marker is known as the *temporal contingency* reading; that is, because there is a salient period of *time*, usually before or after the reference time, at which the proposition does not hold.

Taking into account the interplay between linguistic material and the context of interpretation, I argue that when the context presents salient contextual parameters in alternative circumstances of evaluation at which the proposition is false, the acceptability of the Present Progressive marker to express a *habitual* reading will increase. So, let us consider again the sentences in (2), repeated below as (23), in which the Present Progressive marker (23a) and the Simple Present marker (23b) are conveying a *habitual* reading.

(23) a. Ana est-á   fuma-ndo   diez cigarillos por día.
         Ana be-PRS.3.SG smoke-PROG ten cigarettes a   day
         'Ana is smoking ten cigarettes a day.'

      b. Ana fum-a   diez cigarrillos por día.
         Ana smoke-PRS.3.SG ten cigarettes a   day
         'Ana smokes ten cigarettes a day.'

Under the account presented in the previous subsection, we can argue that the Simple Present in (23b) works similarly to *ser*: it only asserts the truth of the proposition; that is, that Ana smokes ten cigarettes a day. In turn, and given its auxiliary verb, we can consider that the Present Progressive marker in (23a) works as *estar*: for the proposition that Ana smokes ten cigarettes a day to be true at the current circumstance of evaluation, there needs to be an accessible alternative circumstance of evaluation that differs only in one relevant contextual parameter at which the proposition does not hold —in this case, the contextual parameter is time, giving rise to the *temporally contingent* or *temporally bounded* reading.

This account can also explain other cases mentioned in the literature in which the Present Progressive is used to express a *habitual* reading but there is no temporal contingency, such as (24):

(24) Te   est-ás   queja-ndo   todo el tiempo.
      2.SG.REFL be-PRS.2.SG complain-PROG all   the time
      'You are complaining all the time.'

In (24), for the proposition to be uttered felicitously, there needs to be a modally accessible circumstance i' in which the proposition does not hold. Access to those circumstances comes from the doxastic alternatives of the speaker before utterance time; that is, there is a modally accessible alternative circumstance of evaluation i' at which the addressee complains less than what is observed at the current circumstance of evaluation i. In this case, the relevant contextual parameter would be a contextual standard for complaining d_c.

Having explained how *habitual* readings can arise with the Present Progressive marker, I now turn to describe how these readings trigger its **generalization** to all IMPERFECTIVE readings. The analysis makes use of the notion of *perspective alignment* described in §3.5, together with the presuppositional account of *estar* presented in the previous subsection.

In a general model of communication, we can take the *context* to be the body of information that can be assumed at a particular point in a conversation by the speaker and the hearer; that is, their Common Ground (Stalnaker 1978, 2002). So, when a speaker makes an assertion (subject to be added to the Common Ground), this restricts the *context set* —that is, the set of worlds compatible with the information shared between speaker and hearer at that point. The **hypothesis** is that when a speaker wants to convey a *habitual*

reading, but also invoke the consideration of an alternative circumstance of evaluation at which the proposition is false, she will use the Present Progressive marker. By adding to her utterance the consideration of an alternative circumstance of evaluation at which the proposition does not hold, the speaker adds the falsehood of that proposition at that alternative circumstance of evaluation to the Common Ground in just one utterance, optimizing *economy* and *expressivity* constraints. Thus, given that the alternative circumstance evoked by the use of the marker is rejected (i.e., the proposition does not hold in that alternative circumstance of evaluation), the speaker's claim is *informationally stronger* in that eliminates more possible worlds from the context set. The use of the Simple Present marker, in contrast, only conveys the *habitual* reading, without making any claims with respect to the truth of the proposition at an alternative circumstance of evaluation. The Present Progressive marker is thus endowed with greater informativity than the Simple Present marker, and it is this greater informational strength the cause for its **generalization**.

A second reason for the **generalization** of the Present Progressive marker resides in that an utterance with this marker also enhances *perspective alignment* between the speaker's beliefs and the hearer's beliefs, given that the periphrasis is the preferred lexical means to achieve this communicative goal. To the extent that speakers want to have hearers align their perspectives with their own, even if computationally costlier —given the presuppositional content that needs to be computed—, they will use the Present Progressive marker.

I claim that the use of the Present Progressive marker to convey a *habitual* reading will occur more often in contexts that satisfy the presuppositional requirement of *estar* —for example, contexts that indicate that the event expressed by the Present Progressive marker is temporally bounded. The availability of contextual information that satisfies the presuppositional requirement of *estar* will decrease the computational cost of processing the marker. Over time, the frequency of use of this marker will increase both by its greater informational strength and for being the preferred means to achieve *perspective alignment*. In turn, this increase in frequency will slowly produce a decrease in the context-dependence of the marker. Finally, this loss in context-dependence is the factor that would drive the grammaticalization path from an *explicit marking* stage to a new *content dependent'* stage, once the Present Progressive marker overgeneralizes, and encroaches over the whole domain

of the Simple Present marker. This analysis is tested through acceptability judgments and self-paced reading studies in different dialectal varieties of Spanish in Chapter 6.

3.7 Summary

To account for the patterns of variation and change in the Spanish Imperfective domain described in the previous chapter, this chapter has introduced clear formal characterizations of the PROGRESSIVE and the IMPERFECTIVE meanings, together with a shared conceptual structure that unifies them and grounds the process of unidirectional change that is cross-linguistically observed between markers that express these meanings —namely, the PROGRESSIVE-to-IMPERFECTIVE shift.

However, since there are preferences in the use of each of these markers —i.e., the Simple Present marker is the preferred form to express the *habitual* reading, while the Present Progressive marker is the device generally used for the *event-in-progress* reading— I have also proposed explicit characterizations of the contexts of use that facilitate the use of the dispreferred forms for each of these readings. In a nutshell, the Simple Present marker is still allowed to convey an *event-in-progress* reading when speaker and hearer share perceptual access to the event described by the predicate. Conversely, the Present Progressive marker is already a marker of *habitual* readings when the context provides a relevant parameter at an alternative circumstance of evaluation at which the proposition at issue does not hold.

In the next chapter, I develop a concrete way of testing these hypotheses by examining diachronic records of Spanish over different periods of time, observing the role of these contextual constraints in naturalistic data. The following chapters —Chapters 5 and 6— examine the validity of these hypotheses through experimental methods that allow for the controlled manipulation of contextual information —namely, acceptability judgments tasks and self-paced reading studies across three different dialects of Spanish.

Chapter 4

The Simple Present and the Present Progressive across different times periods: a corpus study

4.1 Introduction

In this chapter, I investigate from a diachronic point of view the distribution of the Simple Present marker and the Present Progressive marker to alternatively convey the *event-in-progress* and the *habitual* readings. As stated in Chapter 2, these two markers and these two readings constitute a two-by-two system: (1), while the Present Progressive marker is the conventionalized way of expressing an *event-in-progress* reading, the Simple Present marker can still convey the same reading in specific contexts, and, (2), while the Simple Present marker is the preferred form to express a *habitual* reading, the Present Progressive marker can already perform the same task in some contexts. These "mismatches" or ambiguities in form-function correspondences produce *inherent variability* (Labov 1969, Sankoff & Thibault 1981) in the expression of the different readings of the Imperfective domain.

I argue that the use of competing variants at different synchronic stages is sensitive to both linguistic and extra-linguistic contextual conditions. I analyze the role of different properties of the context in the choice of marker for a given reading through a corpus study that spans three different time periods in the evolution of the Spanish language: 12th to 15th century, 17th century, and 21st century. These three time periods correspond to a traditional periodization of Spanish that distinguishes between Old Spanish, Golden Age Spanish, and Contemporary Spanish.

The starting point for a diachronic approach to this distributional puzzle is the hypothesis that the Progressive marker[1] started as a part of a locative construction in the Spanish

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[1] I will specifically study the conditions of emergence of the Progressive marker in the Present tense (i.e., the Present Progressive marker) to have a clear point of comparison with its competing variant, the Simple Present marker. However, the diachronic phenomenon of *recruitment* of Progressive-marking also

language, and slowly developed into an autonomous device to signal an aspectual distinction with the Simple Present (e.g., Yllera Fernández 1980, Torres Cacoullos 2000 *et seq.*). Torres Cacoullos (2012) shows in a corpus study that in some of the first Spanish texts that we are aware of (e.g., *Poema del Mío Cid*, c. 1140), the Progressive marker shows a preference to co-occur with locative constructions; that is, with expressions that can answer a 'where' question, describing a spatial relation between two arguments: a participant and a *locus* (Levinson & Wilkins 2006). According to this study, the preference to co-occur with locative information weakens over the following centuries, and the periphrasis becomes a marker of the aspectual distinction between *ongoing* and *habitual* events —the latter only expressed through the use of the Simple Present marker.

Here I propose that in its initial stages, the progressive marker was not only licensed by the presence of a locative construction within the same clause, but by the availability of explicit locative information in the broader context. Moreover, I develop an alternative hypothesis by which the presence of co-occurring locative information becomes an epiphenomenon. I claim that the Progressive marker was originally used by a speaker to inform an addressee that an event was occurring at reference time in some *specific spatial coordinates*. That is, instead of arguing for a syntactic licensing of the marker —the co-occurrence of a locative construction—, I argue that the use of the Progressive marker as a new device for the *event-in-progress* reading was actually enabled by the presence of spatial information recoverable from the extra-linguistic context, or by information that was part of the prior common knowledge between speaker and addressee. A natural way of operationalizing this contextual requirement is the Shared Perceptual Access Hypothesis presented in §3.5, given that when a speaker and a hearer share perceptual access to an event, they are both aware of the spatial coordinates at which the event occurs. Over time, the Progressive marker would free itself from this contextual constraint, conventionalizing in the expression of the *event-in-progress* reading.

From a speaker's point of view, when employing a new device to convey this reading, she would explicitly provide a set of clues —such as locative information— for her audience

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involves other tense operators, and both perfective and imperfective aspect on the auxiliary verb in the past periphrasis. As stated in §2.2, some observations with respect to these tense-aspect interactions are made in Chapter 7, but a broader explanation of the phenomena is left for further study.

to interpret the intended *event-in-progress* reading. Context support is thus expected to be specially relevant as the new form appears in the particular meaning domain of Imperfectivity to express a specific semantic contrast. By the time that the device has increased in frequency and usage across speakers, some of the contextual clues would not be needed anymore.

This kind of contextual information —viz., spatial coordinates of the event recoverable from the broader situational context— is crucial in advancing the change in its diachronic path. Thus, this proposal is also related to the Alternative Circumstances of Evaluation Hypothesis presented in §3.6. On that analysis, identifying a contextually relevant parameter for comparison of circumstances of evaluation is what licenses the use of *estar*. Providing information about the location of the event would satisfy that requirement, specially in contexts that compare the occurrence of that event at a specific place with the possibility of that event *not* occurring at a different location.

Furthermore, Sánchez Alonso (2018, Chapter 7) shows that this presuppositional requirement of *estar* is at play since at least the 13th century. For instance, she shows that consistent use of *estar* is first found in interrogative sentences. If we take a question to denote the set of propositions that correspond to a possible answer to that same question (Hamblin 1973, Karttunen 1977), questions would necessarily require that there are alternative circumstances that falsify the proposition. Questions, therefore, constitute one of the optimal supporting contexts for *estar*'s presupposition because they systematically require considering alternative situations that either verify or falsify the prejacent. Besides interrogative contexts, Sánchez Alonso (2018) also mentions that contexts that rely on a locative or a temporal contextual parameter to introduce an alternative circumstance of evaluation are among the ones to be found in Old Spanish to license the use of *estar*.

The Simple Present marker follows an opposite path to the Present Progressive. Once the only imperfective marker of Spanish, the Simple Present marker carried a lot more ambiguity. In many cases, it co-occurred with locative information to disambiguate its reading (and convey an *event-in-progress* reading), but given the lack of competition with another device in the language, it inherently had more flexibility. As the Present Progressive marker emerged, and slowly increased in frequency, the use of the Simple Present marker to convey

an *event-in-progress* reading started requiring the presence of shared perceptual access between speaker and hearer. Nowadays, if this contextual requirement is not guaranteed by the contextual information, speakers have the option to resort to a marker that does not require shared perceptual access anymore, and has conventionalized for the *event-in-progress* reading —namely, the Present Progressive marker.

A natural consequence of the development of the Present Progressive marker as a conventional way of expressing the *event-in-progress* reading is that the Simple Present marker restricts its use to the expression of the *habitual* and *continuous* readings, besides the specific cases mentioned above when contextual support is provided. However, when it comes to the expression of the *habitual* reading, we also observe variability in the choice of marker between the Simple Present and the Present Progressive. While the use of the Simple Present marker is deemed as 'neutral', Present Progressive uses seem to be an extension of their *event-in-progress* ones. Torres Cacoullos (2000: 91) signals that co-occurrence of frequentative adverbials, such as *dos veces por semana* 'twice a week' indicate the compatibility of the Present Progressive marker with the *habitual* reading. She considers that the uses of the Present Progressive marker with a *habitual* reading can be grouped under two general accounts: one based on durativity, and the other one based on transitoriness. The durativity perspective considers the *habitual* a special durative reading, so that the Present Progressive marker would be denoting *pure durativity*, indicating repetition of events, each of which is durative but not viewed as ongoing at reference time (e.g., Yllera Fernández 1980, Parisi 1992, Squartini 1998). The transitoriness account highlights the transitory quality of these expressions —that is, that the *habitual* reading that the Present Progressive marker is expressing is contingent, temporally bounded (e.g., Zdenek 1972, King 1992). Torres Cacoullos (2000) builds on this latter approach, and considers the uses of the Present Progressive marker with a *habitual* reading not only to be "characteristic of a period", but also to convey something new or noteworthy from the point of view of the speaker, involving a subjective meaning component. This would be the basis of the encroachment of the Present Progressive marker into the domain of the Simple Present marker as part of a *subjectification* process à la Traugott (1989).

An alternative account is based on emphasizing the contribution of *estar* to the periphrasis. At least since Fernández Ramírez (1960), it has been noted that the contribution of *estar* to the *event-in-progress* reading is not restricted to the claim of "being *here* at one moment", but necessarily implies "being *there* at another moment". Squartini (1998) also mentions that *estar* usually combines with stage-level predicates to refer to transitory or contingent states. The account proposed in here relies on this intuition and expands it. As mentioned above, the Alternative Circumstances of Evaluation Hypothesis claims that *estar* carries a presupposition that requires the existence of an alternative circumstance of evaluation at which the proposition does not hold. One of the parameters under which this comparison across circumstances of evaluation can be undertaken is *time*, resulting in temporariness. However, another parameter could be the epistemic or doxastic perspective of the speaker, which would result in the 'subjective' component that Torres Cacoullos (2000) proposes. Thus, this hypothesis encompasses both previous hypotheses under a unified account. As a result, we would expect the Present Progressive marker to be able to express a *habitual* reading in contexts that saliently present a relevant contextual parameter such that the proposition does not hold at an alternative circumstance of evaluation.

The remainder of this chapter is structured as follows. The next two sections analyze the development of the Present Progressive marker in the Spanish language, and its competition with the Simple Present marker, setting up the stage for a corpus study across different time periods in which I analyze the contextual components that trigger the use of each marker in the expression of *event-in-progress* and *habitual* readings. Section 4.4 presents the methodology used in the corpus study and the specific variables that were used to code each token. The following two sections present the results and a discussion of the findings in the corpus study. Finally, the last section concludes and provides the necessary connections to experimentally test these findings in Chapters 5 and 6.

4.2 The development of the Progressive marker

Most progressive markers cross-linguistically develop out of locative constructions (Comrie 1976, Bybee et al. 1994). The progressive periphrasis in Spanish is no exception. Composed

of the auxiliary *estar* 'to be' and a gerund (the verbal form ending in *-ndo*), it has developed from a locative construction as in (25) to be the conventionalized way of expressing the *event-in-progress* reading as in (26) below:

(25) los siervos   que **están**   a las muelas **moliendo**.
      the servants who be.PRS.3.PL to the mills   mill.GER

      'the servants who are at the mills milling'.   (General Estoria I). c.1275

(26) Míralo,   **está**   **parando** un taxi.
      look.IMP.2.SG=ACC.3.SG.M be.PRS.3PL hail.GER   a   cab

      'Look, he is hailing a cab.'   (La luna en Jorge), 2001

Torres Cacoullos (2000, 2012) tracks different linguistic factors that condition the development of the Present Progressive marker and its variation with the Simple Present marker across different time periods. She shows that the aspectual opposition between the two markers has developed over time, and that the Present Progressive has become independent of its locative origin. Moreover, the frequency of the Present Progressive has also increased over time, together with the disappearance of intervening material between the auxiliary and the gerund. For instance, while in the 13th century, the frequency of the Present Progressive marker was of 2 per 100,000 words, by the 17th century, it had reached 30 per 100,000 words, and in the 20th century, it was somewhere between 46 (in novels) and 185 (in interviews) per 100,000 words. As for the need for intervening material between the auxiliary verb and the gerund, it decreased from about 38% of the tokens in the 13th century to 17% in the 17th century, and to only 5% in the 20th century (Torres Cacoullos 2012). This fusion of the auxiliary verb and the gerund points to a process of grammaticalization of the periphrastic construction, which is enhanced by the increase in frequency of use.

These findings are very revealing with respect to the nature of the origins of the Present Progressive marker in Spanish. However, one of the shortcomings of these studies is that the coding of linguistic variables that affected the appearance of the marker was limited to the clause in which the marker appeared. For instance, to count as a co-occurring locative, the locative expression needed to be in the same clause that the corresponding marker. If we consider that the appearance of a location might be an epiphenomenon of a more

general contextual constraint based on the Shared Perceptual Access hypothesis —that is, that the marker is favored in contexts where there is shared perceptual access to the event between speaker and hearer—, we need to analyze a broader, larger context of utterance. The general hypothesis is that anchoring the event in space and time, by virtue of the interlocutors sharing them, would allow for the felicitousness of this marker to convey an *event-in-progress* reading.

4.3 Competing variants

Variation between the Present Progressive marker and the Simple Present marker to express the *event-in-progress* reading can be observed since the earliest available Spanish texts, as in (27a) and (27b) below:

(27)   a. maguer los   **están**   **llamando**, ninguno non responde.
           though 3.PL.ACC.M be.PRS.3.PL call.GER   nobody no answer.PRS.3.SG
           'Though they are calling them, nobody answers'.   (Cid)

       b. A grandes vozes **llama**   el   que en buen ora   nació
           to big   voices call.PRS.3.SG the.3.SG.M that in good hour born.PST.3.SG
           'He, who in good hour was born, is calling (them) loudly'   (Cid)

So, what triggers the use of one or the other marker in these cases? The alternations could be due to a difference in meaning. However, within a variationist framework, one can consider that a speaker has a set of variants that she may use to convey a specific reading (Labov 1969). I investigate what are the factors that constrain the availability of using the Present Progressive marker or the Simple Present marker to convey the different readings in the Spanish Imperfective domain through a corpus study presented directly below.

4.4 Methods

4.4.1 Data

Data is divided into three different time periods: 12th to 15th century (Old Spanish), 17th century (Golden Age Spanish), and 21st century (Contemporary Spanish). All texts are

correspond to the (Central) Peninsular Spanish variety in order to always compare the same dialect across time periods. Based on the amount of tokens analyzed in Torres Cacoullos (2012), the goal was to obtain around 100 tokens of the Present Progressive marker for each time period to allow for relevant comparisons with the Simple Present marker. Thus, the word counts are 1,111,896 words for the Old Spanish corpus, 435,690 for the Golden Age Spanish corpus, and 126,939 for the Contemporary Spanish one.

The Old Spanish corpus is made up of 10 texts spanning the 12th-15th centuries, in prose and verse, of different genres: epic poems (*Poema de Mio Cid*), didactic stories (*Apolonio, Calila e Dimna, El Conde Lucanor, Libro de Buen Amor*), chronicles (*General Estoria*),[2] chivalric novels (*Cifar*), a sermon (*Corbacho*), and a play (*Celestina*). The Golden Age Spanish corpus comprises both parts of the *Quijote* and three plays in verse (two by Lope de Vega, and one by Calderón de la Barca). The Contemporary Spanish corpus includes a novel by Lola Beccaria (*La luna en Jorge*) and a play by Alberto Miralles. Examples from most texts only show an abbreviation of the title of the corresponding text on the right side of the page. The full bibliographical information —together with individual word counts— is listed chronologically under Corpus, before References.

4.4.2   Token extraction

Tokens were extracted from two online corpora during the months of March to July of 2019: the CORDE (*Corpus Diacrónico del Español*, Diachronic Corpus of Spanish) for Old Spanish and Golden Age Spanish, and from the CREA (*Corpus de Referencia del Español Actual*, Reference Corpus of present-day Spanish) for Contemporary Spanish. Each token was extracted with at least two preceding and two following paragraphs to be able to analyze the role of the broader linguistic context in the choice of variant.

Present Progressive tokens were extracted exhaustively by searching in both corpora for the following chains: "est* dist/10 *ndo", "Est* /dist10 *ndo", and "ndo dist/10 est" (to account for inverse order of the auxiliary and the gerund). The asterisk symbol (*) works as an operator that allows any number of characters preceding or following the written chain.

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[2]I only used the first part of the *General Estoria* because it is one of the only two parts —first and fourth— conserved in manuscripts from the *royal scriptorium*; the rest are only known through later copies (Eisenberg 1973. Alvar & Lucía Megías 2002: 42-54).

The operator "dist/10" permits from 0 and up to 10 words between the searched chains (to allow for intervening material between auxiliary and gerund). Raw results were cleaned by manual elimination from occurrences that matched the chain material but were not instances of the Progressive marker (e.g., ***est**e mu**ndo*, 'this world'). The results of these searches provided tokens of Progressive marking not only in the Present (i.e., when the auxiliary *estar* is in the Present tense), but also tokens of Past Progressive (both *estar*.PST.IPFV + gerund and *estar*.PST.PFV + gerund), Present Perfect Progressive (*haber*.PRS + *estado* + gerund), Pluperfect Progressive (*haber*.PST.IPFV + *estado* + gerund), Future Progressive (*estar*.FUT + gerund), and Conditional Progressive (*estar*.COND + gerund). However interesting the distribution of Progressive marking across different tenses in Spanish might be, I limit myself here to the study of the Present Progressive tokens —since it is the most frequent case of Progressive marking, and because the competing variant under consideration is the Simple Present marker—, and leave Tense effects on the advancement of the PROGRESSIVE-to-IMPERFECTIVE shift for further study.[3] The number and proportion of tokens for Present Progressive, Imperfective Past Progressive (*estar*.PST.IPFV + gerund), and other Progressive markers per time period is given below in Table 4.1.

	Old Spanish	Golden Age Spanish	Contemporary Spanish
Present Progressive	80 (42.3%)	84 (41.4%)	169 (72.5%)
Imperfective Past Prog.	79 (41.8%)	76 (37.4%)	33 (14.2%)
Other Progressive markers	30 (15.9%)	43 (21.2%)	31 (13.3%)

Table 4.1: Number and percentage of tokens of Progressive marking under each Tense operator in corpus study across time periods.

Given the low frequency of the Present Progressive marker, only a sample of the much more frequent variant, the Simple Present, is considered in this study. The Simple Present sample is constituted by: (a), all Simple Present occurrences of lexical types also appearing in the Present Progressive in each text, and, (b), all Simple Present occurrences of lexical types used in the experimental tasks in Chapters 5 and 6. Simple Present tokens extracted by the lexical type of the Present Progressive tokens that appear in the corpus make up

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[3]Though see some observations about the tense-aspect interactions between IMPERFECTIVE and PROGRESSIVE markers, and Past and Future tense operators in Chapter 7.

34.8% of the Old Spanish corpus, 34.7% of the Golden Age Spanish corpus, and 52.2% of the Contemporary Spanish corpus. Simple Present tokens that correspond both to a lexical type in the experimental task and to a lexical type in which the Present Progressive marker appears in the corpus were 11.8% of the tokens in Old Spanish, 13.7% in Golden Age Spanish, and 32.1% in Contemporary Spanish. Finally, Simple Present tokens that correspond to lexical types only used in the experimental tasks account for 53.4% of the cases in Old Spanish, 51.6% of the cases in Golden Age Spanish, and 15.7% of the cases in Contemporary Spanish. The increase in Simple Present tokens that correspond to the lexical type of the Present Progressive tokens in the corpus shows how the latter marker has expanded over time its range of possible combinations to a greater amount of lexical predicates.

The temporal domain in which variation between the competing forms —viz., the Simple Present marker and the Present Progressive marker— occurs is the Present. Therefore, I excluded from posterior analyses tokens of the Simple Present marker that have past (n= 86) or future (n =115) reference, as well as a single token of the Present Progressive marker that has future reference. The number of these cases is similar across time periods (Old Spanish = 65, Golden Age Spanish = 77, Contemporary Spanish = 60). An example of a Simple Present token with past reference and one with future reference can be found in (28) and (29) respectively:

(28) **cantan** los gallos [...], cuando llegó [...] el buen Campeador
sing.PRS.3.PL the roosters [...] when arrive.PST.3.SG [...] the good Campeador
'the roosters were singing when the good Campeador arrived'.   (Cid)

(29) vamos a entrar en este bar y **tomamos** algo
go.PRS.1.PL to enter.INF in this bar and drink.PRS.1.PL something
'Let's go into this bar and drink something'   (La luna en Jorge)

Proverbs and sayings were also excluded from analysis, since they do not vary in their choice of marker. Also excluded were all stage directions in plays. Collocations of high

frequency with the following verbs[4] —which almost invariably appear with the Simple Present— were also excluded:

a. *decir* 'to say': *como dice* 'as it says', *según dice*, 'as it says', *se dice* 'it is said', parenthetical *dice* 'as it says', *que dice en* + (language) 'as it is said in (language)', *que dice así* 'that says in this way' when introducing direct speech.

b. *razonar* 'to explain': *como razona* 'as it explains', *según razona* 'as it explains'.

c. *hablar* 'to talk ': *donde habla...* 'where it says', *según habla* 'as it says'.

d. *leer* 'to read': *según leemos aquí* 'as we can read here'.

e. *hacer* 'to make/do': when used with a temporal expression, as in *hace cinco años* 'five years ago', and when used as a light verb (e.g., *hacer saber* 'let know', *hacer falta* 'need', etc.).

f. *dar* 'to give': when used as a light verb, such as in *dar gracias* 'to thank', *dar la razón* 'to agree with', etc.

g. *ver* 'to see': *ya ves* 'you see', *no ves* 'don't you see', *bien veo* 'I see', *se ve que...* 'it is seen that...'.

h. *saber* 'to know': *ya sé que...* 'I already know that...', *¿no sabes?* 'don't you know?'.

i. *pasar* 'to happen/take place': *pasa que* 'what happens is that...'.

j. *acabar de* + infinitive, as used in the terminative periphrasis (e.g., *acabo de comer* 'I just ate').

k. *llegar a* + infinitive, as used in the resultative periphrasis (e.g., *llegué a enterarme...* 'I came to know...').

l. *volver a* + infinitive, as used in the periphrasis that expresses reiteration (e.g., *volvió a hacerlo* 'she did it again').

m. *ir* 'to go': *ir y...*, which works as an inchoative construction, *ir bien/mal* 'to go well/poorly', *¡vamos!* 'c'mon', *ir a por* 'to go for', and when used as an auxiliary.

n. *venir* 'to come': when used as an auxiliary.

o. *haber* 'have:' when used as an auxiliary.

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[4]Many collocations are listed either in the infinitive or in the third person singular, but, when relevant, they were excluded as tokens in all grammatical persons and numbers. For example, the first collocation in the list —*como dice* 'as it says'— was also excluded in the cases of *como digo* 'as I say', *como dices* 'as you say', *como dicen* 'as they say', etc.

4.4.3   Token coding

To understand the choice of variant of speakers, I coded each token for a set of contextual features. These contextual conditions are operationalized as factors with two or more levels to test several hypotheses related to the choice of linguistic form to express a given reading. First, all tokens were coded both for the time period that they belong to, and with respect to the reading that they express: either a) an *event-in-progress* reading, b) a *habitual* reading, c) a *continuous* reading, or d) cases where it is not possible to determine a specific reading, given that both an *event-in-progress* or a *habitual* reading can be interpreted. Examples are given below for each marker-reading pair: (30 a-d) shows each reading for the Present Progressive marker, and (31 a-d) does so for the Simple Present marker.

(30)   a. *event-in-progress* reading:

este barco que está   aquí [...] me   **está**   **llamando**.
this ship   that be.PRS.3.SG here [..] 1.SG.ACC be.PRS.3.SG call.GER

'This ship that is here [...] is calling me'.   (Quijote II)

b. *habitual* reading:

sienpre **estás**   **chirlando** locura, de mañana
always be.PRS.2.SG yell.GER   crazy, of morning

'You are always talking crazy, in the mornings.'   (Buen Amor)

c. *continuous* reading:

Mio Cid don Rodrigo en Valencia **está**   **folgando**
Mio Cid don Rodrigo in Valencia be.PRS.3.SG rest.GER

'Mio Cid sir Rodrigo is resting in Valencia.'   (Cid)

d. indeterminate reading:

Están   **sacando** en un reality show todas mis cosas.
be.PRS.3.PL air.GER   in a   reality show all   my things

'They are airing all my stuff in a reality show'.   (¡Hay motín, compañeras!)

(31)   a. *event-in-progress* reading:

yo ni **duermo** ni estoy ahora borracho
I neither sleep.PRS.1.SG nor be.1.SG now drunk

'I am neither sleeping nor drunk'   (Quijote II)

b. *habitual* reading:

commo **faze** el agua quando la escalienta
how do.PRS.3.SG the water when 3.SG.ACC.F heat.3.SG

'how the water does when he heats it'.   (Calila e Dimna)

c. *continuous* reading:

E sobr' esta razón **razona** maestre Pedro
and about this topic explain.PRS.3.SG master Peter

'And about this topic master Peter explains...'   (General Estoria I)

d. indeterminate reading:

la desaventura **corre** conmigo
the misadventure run.PRS.3.SG with.1.SG

'Misadventures happen to me'   (Cifar)

The tokens were later coded for whether they show: a) Shared Perceptual Access between speaker and hearer to the event described by the predicate, b) Alternative Circumstances of Evaluation at which the proposition expressed by the predicate does not hold, c) Grammatical Person, d) Grammatical Number, e) Clause Type, f) Force, g) Polarity, h) Co-occurrence of locative constructions, and i) Co-occurrence of temporal constructions.[5] An explanation of each of these independent variables and the levels within them, together with illustrative examples, is given directly below.

Shared Perceptual Access

The first coded variable corresponds to the Shared Perceptual Access Hypothesis. As explained in §3.5, this hypothesis relates to the *event-in-progress* reading of the Imperfective

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[5]To increase readability, examples of co-occurrence of locative constructions, co-occurrence of temporal constructions, shared perceptual access between speaker and hearer, and alternative circumstances of evaluation at which the proposition expressed by the predicate does not hold are limited to cases within the same clause where the marker appears. However, many —if not most— instances occurred beyond the clausal boundaries in which the token under analysis shows up.

domain. The hypothesis states that to express this reading a speaker can use the Present Progressive marker, or she can use the Simple Present marker, but the latter is only felicitous when speaker and addressee share perceptual access to the event described by the predicate. In this corpus, (32a) presents an example of a Present Progressive marker expressing an *event-in-progress* reading with shared perceptual access between speaker and hearer to the event described by the predicate, while (32b) presents the same marker without shared perceptual access. (33a), in turn, shows a case of the Simple Present marker conveying this reading when shared perceptual access between speaker and hearer is guaranteed, and (33b) presents a case where this contextual condition is not met:

(32) a. *viendo*   don Quijote lo   que pasaba,   [...]
         watch.GER don Quixote 3.SG.M.ACC that happen.PST.IPFV.3.SG [...]
         dijo: [...] yo os   haré   conocer ser   de
         say.PST.PFV.1.SG [...] I 2.PL.DAT make.FUT.1.SG admit.INF be.INF of
         cobardes lo   que **estáis**   **haciendo**.
         cowards 3.SG.ACC that be.PRS.2.PL do.GER

         'Observing what was happening, Don Quixote [...] said: [...] I will make you

         admit that what you are doing is of cowards'.   (Quijote I)

      b. tu   marido está   en la ribera de la mar et   que ha
         your husband be.PRS.3.SG in the bank of the sea and that have.PRS.3.SG
         por amigo un ximio; et **están**   anbos **comiendo**
         by friend a monkey and be.PRS.3.PL both   eat.GER

         'Your husband is at the sea shore and has a monkey for a friend, and they are

         both eating.'   (Calila e Dimna)

(33) a. aquí lo   **digo**   ante mio señor el rey Alfonso
         here 3.SG.M.ACC say.PRS.1.SG before my lord   the king Alfonso

         'Here I am saying it before my lord, King Alfonso'   (Cid)

      b. Esa tampoco es   mala idea, ahora que lo   **pienso**
         that neither be.PRS.3.SG bad idea, now   that 3.SG.ACC.M think.PRS.1.SG

         'that's not a bad idea, now that I am thinking about it'.   (La luna en Jorge)

In (32a), shared perceptual access between speaker and hearer is guaranteed since Don Quixote is watching the action performed by his listeners before speaking to them about it. By contrast, in (32b), the speaker has seen the listener's husband before, but they do not share perceptual access to the event of eating by the addressee's husband and their monkey

friend. In the cases with the Simple Present, (33a) shows a case with shared perceptual access between speaker and hearer, since the 'saying' action by the speaker, together with the locative adverb *aquí* 'here', necessarily entails that the listener is perceiving that action. On the other hand, (33b) shows an internal process (viz., thinking) to which the listener cannot have perceptual access. In that latter case, it is the adverb *ahora* 'now' the resource that points to the *event-in-progress* reading of the Simple Present marker.

From a diachronic perspective, it can be expected that when a marker such as the Present Progressive appeared in the language, it needed contextual support to provide clues of interpretation for the hearer. That is exactly what shared perceptual access provides: an extra-linguistic, situational anchoring in space and time for the event, so that the addressee can more easily interpret that the development of the event is overlapping with the reference interval. Over time, the prediction is that the use of this marker conventionalized for this reading, so that this contextual requirement for the Present Progressive marker was eliminated.

By contrast, when it was the only device to express all readings within the Imperfective domain, the older marker —the Simple Present— always needed to be disambiguated by contextual information. Shared perceptual access between speaker and hearer was one of the ways in which the *event-in-progress* reading could be obtained with this marker. When the Present Progressive marker appeared in the language and slowly started conventionalizing to express the *event-in-progress* reading, the Simple Present marker became pragmatically restricted to the other readings of the Imperfective (viz., the *habitual* and *continuous* readings). Therefore, the contextual requirement to express an *event-in-progress* reading would have only become stronger over time for the Simple Present marker, reaching the current state of present-day Spanish. That is, if a speaker wants to still use this marker for this reading, she needs to rely on a context that provides every possible indication that the interpretation is an *event-in-progress* one. Under this hypothesis, one way to guarantee that a given hearer assigns this interpretation to a sentence marked with the Simple Present marker would be to utter it in a context where the speaker shares perceptual access to the event described by the predicate with the hearer.

Alternative Circumstances of Evaluation

The independent variable that is of relevance for the alternation between the Simple Present marker and the Present Progressive marker when conveying a *habitual* reading is related to the Alternative Circumstances of Evaluation Hypothesis developed in §3.6. Under this hypothesis, we expect there to be more cases of the Present Progressive marker conveying a *habitual* reading when there is an alternative circumstance of evaluation in the discourse situation at which the proposition expressed by the sentence does not hold. Conversely, the Simple Present marker should not present this contextual modulation —since it does not carry the presuppositional content of *estar*, the auxiliary verb in the Progressive periphrasis. Moreover, the Simple Present marker should also be the preferred form to convey this reading across time periods since the *generalization* process is only at its initial stages.

Examples of the Present Progressive marker conveying a *habitual* reading are given in (34a) and (34b) below: the former includes the presence of an alternative circumstance of evaluation at which the proposition does not hold, and the latter remains neutral in this respect. (35a) shows a case of the Simple Present marker expressing a *habitual* reading in a context where a salient alternative circumstance of evaluation at which the proposition does not hold is available, and (35b) shows a case where a salient alternative is not recoverable from the context.

(34)   a. si estoy   en algún balcón, **estoy   pensando** [...] matarme
          if be.PRS.1SG in a   balcony be.PRS.1SG think.GER [...] kill.INF=1SG.ACC
          'If I am in a balcony, I think about killing myself '.   (El castigo)

       b. los peçes son   los huéspedes que siempre **están   callando**
          the fish   be.PRS.3PL the guests   that always be.PRS.3.PL be.silent.GER
          'Fish are the guests that are always being silent'   (Apolonio)

(35)   a. piensa   bien lo   que **fablas**,   o calla,
          think.IMP.2.SG well 3.SG.M.ACC that say.PRS.2.SG or be-quiet.IMP.2.SG
          fazte   mudo
          make.IMP.2.SG=2.SG.ACC mute
          'Think well what you say, or be quiet, make yourself silent'   (Buen Amor)

    b. **hago**   mil   locuras,   rasgándome   los vestidos
     do.PRS.1.SG thousand crazy.thing, tear.GER=1.SG.REFL the clothes

     'I do a thousand crazy things, tearing my clothes'.   (Quijote I)

In (34a), the Present Progressive marker conveys a *habitual* reading: every time that the speaker is at a balcony, she is thinking about killing herself. However, the antecedent of the conditional makes available by default all worlds in which the speaker is not at a balcony, providing alternative circumstances of evaluation at which that 'thinking' does not happen. By contrast, (34b) presents a situation that is always the same: the fish are always silent, so that there is no salient alternative circumstance of evaluation in the context at which they are not mute. As for the cases with the Simple Present marker, in (35a) the speaker presents options to their addressee (viz., think well before talking *or* remain silent). In that way, there is a salient alternative to 'talking', which is remaining silent, that is presented in the context and would make 'talking' false. On the other hand, (35b) does not present salient alternatives at which the 'doing of crazy things' by the speaker does not hold.

Grammatical Person & Grammatical Number

All tokens were also coded for grammatical person, given that occurrences of the Present Progressive marker or the Simple Present marker can be marked for first, second, or third person. Torres Cacoullos (2000) found that the third person favors the Progressive marker in Old Spanish, but not in her 19th century data. In her follow-up study (2012), she only found that grammatical person participates in some interactions with other factors regardless of time period: first and second person significantly trigger the appearance of the Present Progressive marker —in comparison to third person tokens— in "limited duration" contexts (i.e., *event-in-progress* and *continuous* readings according to her classification). Grammatical person also seems to interact with the co-occurrence of locative constructions, such that third person subjects are more likely to appear with them than with first and second person ones (Torres Cacoullos 2012: 112, ft. 20). Examples from my corpora in first, second and third person are given below in (36) and (37) for the Present Progressive marker and the Simple Present marker respectively:

(36) a. **Estoyte**   **diciendo** que excuses   refranes
be.PRS.1.SG=2.SG.ACC tell.GER   that refrain.PRS.2.SG proverbs

'I am telling you to refrain from proverbs '.   (Quijote II)

b. ¡Omne loco, mesquino! ¿Qué **estás**   **diziendo**?
man   crazy mean   what be.PRS.2.SG say.GER

'Crazy, mean-spirited man! What are you saying?'   (Lucanor)

c. syenpre **están**   **llorando** e   quexándose de   pobreza
always be.PRS.3.PL cry.GER   and cry.GER   about poverty

'They are always crying and complaining about being poor'.   (Corbacho)

(37) a. si me   ves   es   que **salgo**
if 1.SG.ACC see.PRS.2.SG be.PRS.3.SG that leave.PRS.1.SG

'If you see me, I'm leaving'   (¡Hay motín, compañeras!)

b. Non **dizes**   verdad a amigo ni   a señor
no   tell.PRS.2.SG truth   to friend nor to lord

'You don't tell the truth neither to a friend nor to a lord'.   (Cid)

c. dizen   que se   **levantan**   cuando quieren
say.PRS.3.PL that 3.PL.REFL stand.PRS.3.PL when   want.PRS.3.SG

'They say that they stand when they want'.   (General Estoria I)

Tokens were also coded for grammatical number, having both Singular and Plural tokens of Present Progressive-marked and Simple Present-marked occurrences. (36a) is a case of the Present Progressive marker in the singular, while (36c) shows a case of the same marker in the Plural. As for the Simple Present marker, (37b) shows a case of Singular number, while (37c) shows a case with Plural number. All combinations of person and number, with both *event-in-progress* and *habitual* readings, are found in the corpus. However, there is no specific hypothesis in the literature relating grammatical number to the distribution of these markers in the expression of the *event-in-progress* or the *habitual* reading.

Clause Type

Tokens were also coded for the type of clause that they appear in. In English, subordinate clauses favor the appearance of the Progressive marker (Walker 2001). However, Torres Cacoullos (2012: 112, ft. 19) did not find in Spanish categorical differences between main and subordinate clauses in any of the time periods she coded for (viz., Old Spanish, 17th

century, and 19th century). In my corpus, both the Present Progressive marker and the Simple Present marker appear in main and subordinate clauses. An example of a Present Progressive marker in a main clause is given in (38a), and an instance of this marker in a subordinate clause is presented in (38b). Examples for the Simple Present marker are given in (39a) and (39b) for a main clause and a subordinate clause respectively.

(38)   a. sus ánimas ya   **están**   **purgando** su   yerro
           their souls   already be.PRS.3.PL purge.GER their mistake
           'Their souls are already purging their mistake'.   (Celestina)

      b. ¿no miráis   que **estamos** **trabajando**?
          no   see.PRS.2.PL that be.PRS.1.PL work.GER
          'Don't you see that we are working?'   (El príncipe constante)

(39)   a. Coge   su   mochila y **baja**   al   garaje
           grab.PRS.3.SG 3.SG.POSS backpack and go.down.PRS.3.SG to.the garage
           '(she) grabs her backpack and goes down to the garage'   (La luna en Jorge)

      b. por donde **van**   syenpre dexan   rrastro
          by where go.PRS.3.PL always leave.PRS.3.PL trace
          'Wherever they go, they always leave a trace'.   (Corbacho)

Force

Sentential Force was also coded for all tokens, given previous findings in English and Spanish. Interrogatives sentences disfavor the appearance of the English Progressive (Jarmasz 2005) and, for Spanish, Torres Cacoullos found a similar pattern: interrogative sentences are the least favorable context for the Present Progressive marker across time periods (2012: 105). One plausible reason is the disproportionate amount of fixed interrogative expressions that are marked with the Simple Present, but most of them were excluded from our analysis to avoid creating a confound. At the same time, many collocations in Contemporary Spanish are marked with the Present Progressive, and could create an opposite tendency, so those were also excluded from analysis.

    The levels of this factor are Declarative, Interrogative, and Conditional.[6] The three levels appear both for the Present Progressive marker and for the Simple Present marker.

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[6]No imperatives were included, since they do not alternate with a Progressive form.

For the Present Progressive marker, an example of a declarative sentence is given in (40a), an example of an interrogative is presented in (40b), and a token of a conditional is shown in (40c). Simple Present tokens with the same sentence types (viz., declarative, interrogative, conditional) are given in (41a), (41b), and (41c) respectively.

(40)   a.   ahora la mujer se **está** **poniendo** al día
       now   the woman 3.REFL be.PRS.3.SG become.GER to.the day

       'Women are now catching up'.   (La luna en Jorge)

     b.   ¿Qué es   esto que **estoy** **mirando**?
       what be.PRS.3.SG this that be.PRS.1.SG watch.GER

       'What is this that I am seeing?'   (El castigo)

     c.   si **estáis** **porfiando** en tener   gobierno
       if be.PRS.2.PL strive.GER in have.INF government

       'If you are striving to have a government...'   (Quijote II)

(41)   a.   yo a aquel arroyo me   **voy**   con esta empanada
       I   to that   stream 1.REFL go.PRS.1.SG with this pastry

       'I am going to that stream with this pastry'   (Quijote I)

     b.   ¿Qué pro   avemos   deste   camello que **come**   yerva?
       what advantage have.PRS.1.PL from.this camel   that eat.PRS.3.SG grass

       'What advantage do we get from this camel that eats grass?'.   (Calila)

     c.   si tú esto **fazes**,   acabas   gran honor
       if you this do.PRS.2.SG end.PRS.2.SG great honor

       'If you do this, you will end up with great honor'.   (Apolonio)

Polarity

Negative polarity contexts seem to disfavor the appearance of the Present Progressive marker both in English (Jarmasz 2005) and in Spanish (Torres Cacoullos 2000, 2012). Givón (1979) provides an interpretation for why this might be the case. He claims that the presuppositional status of a negative sentence with respect to the affirmative proposition that it entertains might make negation a semantically conservative environment for diachronic change. Under his proposal, tense-aspect distinctions are first elaborated in the affirmative paradigm, so that the increase in frequency of a particular marker in negated contexts can only come after its development in affirmative contexts. However, most negative clauses do

not seem to necessarily deny something explicitly present in the context (Horn 1985: 144), so it is not clear whether Givón's (1979) presuppositional account of negation is relevant to the diachronic trajectory of the Present Progressive marker.

Alternatively, Torres Cacoullos (2012: 106) proposes that negative polarity contexts might disfavor the appearance of the Present Progressive marker because the aspectual distinction between *habitual* and *event-in-progress* is less applicable under negative polarity: if the situation is not happening, its instantiation over time becomes less relevant. This hypothesis is supported by the fact that negation also disfavors other newer forms in tense and aspect distinctions —for instance, newer forms of the future are disfavored in Early Modern Greek (Pappas 2001). However, this hypothesis does not seem to take into account the reading that is conveyed by the marker under consideration. One could imagine that if the aspectual distinction is less relevant in negated contexts, both the Present Progressive marker and the Simple Present marker could appear to express any of the readings of the Imperfective. Consequently, it might be important to analyze whether there is some interaction between the polarity of the sentence and the reading expressed by the marker in the choice of formal variant that shows up in a given sentence.

To this end, and since the tokens in the current corpus are differentiated by reading, I coded all tokens for Polarity to assess the findings in Torres Cacoullos (2012). An example of a Present Progressive token in an affirmative context is provided in (42a), and an example in a negative polarity context is given in (42b). As for the Simple Present marker, an example in an affirmative context is shown in (43a), and an example in a negative polarity context is presented in (43b):

(42)   a. **estále** **mirando** con los ojos raviosos
        be.PRS.3.SG=3.SG.DAT watch.GER with the eyes rabid
        'She is watching him with rabid eyes'.   (Corbacho)

      b. non **está** **faziendo** nada
        no be.PRS.3.SG do.GER nothing
        'He's not doing anything'.   (General Estoria I)

(43)   a. Otros **fablan** muy bien et fazen muy bien sus faziendas
        others talk.PRS.3.SG very well and do.PRS.3.PL very well 3.PL.POSS business
        'Others talk very well and do their business very well'.   (Lucanor)

      b. no **vengo**   yo de   alguna alcurnia desagradecida
         not come.PRS.1.SG I   from some   ancestry ungrateful

         'I don't come from some ungrateful ancestry'.   (Quijote II)

Locative expression

As mentioned in this chapter's introduction, the locative origin of Progressives is widely established across languages and language families. Torres Cacoullos (2000 *et seq.*) provides quantitative evidence of this fact for Spanish by showing that in Old Spanish there is a greater amount of tokens of the Present Progressive marker in the presence of co-occurring locative constructions than when a locative construction is not present in the same clause. Under her account, locative expressions become over time progressive constructions by an implication of the locative expression itself —namely, that when an event occurs at a specific location, it generally implies that it is occurring at reference time. The gradual loss of the locative meaning of the expression would occur by *semantic bleaching*, with the concurrent appearance of the Present Progressive marker in a broader set of contexts. This proposal, however, only provides a descriptive account of the diachronic facts, but it is clearly not at the level of an explanation of *how* and *why* the aspectual opposition with the Simple Present marker developed.

    I coded the tokens in the corpus for the presence or absence of a co-occurring locative construction to confirm the locative origin of the Present Progressive marker, and to assess the interaction of this factor with the Shared Perceptual Access Hypothesis. Examples of the Present Progressive marker with and without the co-occurrence of a locative expression are given in (44a) and (44b), while examples for the Simple Present marker are presented in (45a), with a locative construction, and in (45b), without it.

(44)   a. que **están**   en aquel corral   **chapullando**
         that be.PRS.3.PL in that   farmyard make.noise.GER

         'that are making noise in that farmyard'.   (Corbacho)

      b. no es   absurdo lo   que nos   **está**   **pasando**.
         no be.PRS.3.SG absurd 3.SG.ACC that 1.PL.ACC be.PRS.3.SG happen.GER

         'It's not absurd what is happening to us'.   (La luna en Jorge)

(45) a. no **avéis**   guerra en esta vuestra   tierra.
            not have.PRS.3.SG war   in this 2.PL.POSS land

           'You don't have a war in this, your land'.   (Cifar)

      b. Eso **hace**   la vil   gente
            that do.PRS.3.SG the mean people

           'That is what mean people do'.   (Servir a señor discreto)

Temporal expression

Opposite to the proposal that the PROGRESSIVE aspect of the Progressive marker is an *implication* of its locative construction origin, an alternative hypothesis is that the mechanism of change involved in the development of an aspectual meaning of the construction was a space-to-time *metaphor* (Claudi & Heine 1986). If that were the case, one should observe across time periods not only a decrease in the co-occurrence of locative constructions, but an increase in the number of temporal expressions that co-occur with the Progressive marker —and later on, once the marker has conventionalized the PROGRESSIVE aspectual meaning, also a decrease in the co-occurrence of temporal constructions. No such prediction follows from the view presented in the previous subsection, where the aspectual meaning is what remains once the locative meaning is "bleached", instead of arising by a metaphorical process.

To adjudicate between these two competing hypotheses, I coded for the co-occurrence or absence of a temporal expression with the marker under consideration. An example of a Present Progressive token with a co-occurring temporal expression is presented in (46a), and a token of the same marker without a temporal expression is given in (46b). An example of the Simple Present marker co-occurring with a temporal expression is presented in (47a), and one with no temporal expression is shown in (47b).

(46) a. quizá con envidia [...] la   **estás**   ahora **mirando**
            maybe with envy   [...] 3.SG.ACC.F be.PRS.2.SG now   watch.GER

           'maybe with envy you are watching her now'.   (Quijote I)

      b. entraré   a ver   con quién **está**   **hablando** mi señora
            enter.FUT.1.SG to see.INF with who   be.PRS.3.SG talk.GER   my lady

           'I will go inside to see who my lady is talking with'.   (Celestina)

(47) a. ella **dice**   mal   de mí   cuando se le   antoja.
          she speak.PRS.3.SG badly of 1.SG.ACC when   se 3.SG.DAT fancy.PRS.3.SG

          'She speaks badly about me when she feels like it'.   (Quijote II)

       b. mas del   Cid Campeador yo non vos   **digo**   nada
          but from.the Cid Campeador I   not 2.SG.ACC say.PRS.1.SG nothing

          'But I don't tell you anything about the Cid Campeador'.   (Cid)

4.5   Results

To analyze the results of the coded tokens from the corpus, I performed a linear mixed
effects analysis in R (R Core Team 2018) using the *lme4* package (Bates et al. 2015)
with "binomial" set as function, since the dependent variable is binary (i.e., the form that
appears in the text is either a Simple Present marker or a Present Progressive marker). I
performed Likelihood Ratio Tests of the full model with the effect in question against the
model without it for model selection, and I run post hoc tests with the *multcomp* package
(Hothorn et al. 2008), and corrected the p-values by Tukey. Models analyze the effects of
the independent variables on the dependent variable, i.e., the choice of marker. As random
effects, all models have random intercepts for item, for the source of the data (i.e., the text
where the token is coming from) and for the specific lexical predicate in which the marker
appears in the text. This is the maximal random effect structure justified by the data.

As a summary, the total number of tokens with Present temporal reference that were
coded is 3,560. The corpus thus presents 1,485 tokens for Old Spanish, 929 tokens for
Golden Age Spanish, and 1,146 tokens for Contemporary Spanish. A first pass at the
distribution between the Simple Present and the Present Progressive markers —without
differentiating between readings— shows a steady increase of Present Progressive use across
time periods. A model that has Time Period as a fixed effect performs significantly better
at predicting the choice of marker than the null hypothesis ($\chi^2(2) = 10.932, p < .005$).
Multiple comparisons corrected by Tukey show that differences across time periods are all
significant, and favor the appearance of the Present Progressive marker as we move closer to
Contemporary Spanish (Old Spanish - Golden Age Spanish: $\beta = 0.3621, p < .001$; Golden
Age Spanish - Contemporary Spanish: $\beta = 0.7502, p < .001$; Old Spanish - Contemporary
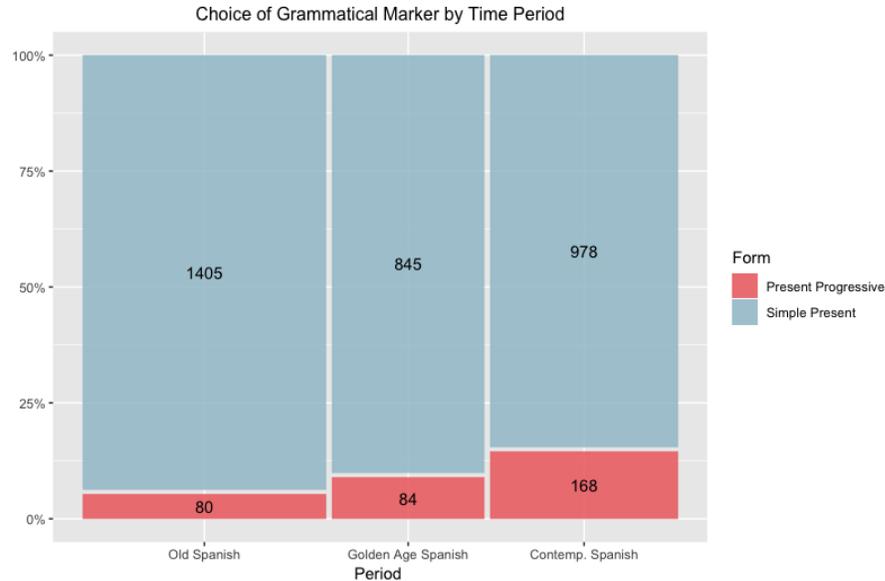
Figure 4.1: Number of Simple Present and Present Progressive tokens in corpus study across different time periods for all readings.

Spanish: $\beta = 1.112, p < .001$). In Table 4.2 we can see how many tokens of each marker are found in each time period, and the proportion of Simple Present marking and Present Progressive marking.

	Old Spanish	Golden Age Spanish	Contemporary Spanish
Simple Present	1405 (94.61%)	845 (90.96%)	978 (85.34%)
Present Progressive	80 (5.39%)	84 (9.04%)	168 (14.66%)
Total	1485 (100%)	929 (100%)	1146 (100%)

Table 4.2: Number and percentage of Simple Present tokens and Present Progressive tokens in corpus study across time periods.

   Figure 4.1 also presents the increase by time period in the use of the Present Progressive marker. The width of each column in the mosaic represents the proportion of number of tokens in that period to the total number of tokens under analysis. In light blue, we observe the Simple Present tokens, while in red, we can see the Present Progressive ones.

   Besides the general increase in frequency of use, it is more important for the purposes of this study to analyze whether this increase occurs when the Present Progressive marker is expressing the *event-in-progress* reading in particular. Moreover, since we are assuming

that it is the speaker who makes a choice of marker when they want to express a particular reading, an analysis that separates the use of each marker with respect to the *event-in-progress* and the *habitual* readings is more adequate for our purposes. The corpus presents 389 tokens where the reading was deemed indeterminate,[7] so the total number of tokens under analysis for the remaining independent variables was 3,171. These indeterminate readings are distributed similarly across time periods: there are 162 cases in Old Spanish (160 Simple Present tokens and 2 Present Progressive tokens), 110 cases in Golden Age Spanish (108 Simple Present tokens and 2 Present Progressive tokens), and 122 cases in Contemporary Spanish (116 Simple Present tokens and 6 Present Progressive tokens).

Out of the 3,171 tokens, there are 1,279 tokens that express an *event-in-progress* reading, 1,679 tokens that express a *habitual* reading, and 213 tokens that convey a *continuous* reading. Table 4.3 shows the number of tokens of each marker conveying each reading across each time period. The percentages indicate vertical comparisons between Simple Present marking and Present Progressive marking for each reading in each time period.

	Old Spanish			Golden Age Spanish			Contemporary Spanish		
	PROG	HAB	CONT	PROG	HAB	CONT	PROG	HAB	CONT
Simple Present	359	775	111	289	410	38	364	441	62
	(86.5%)	(97.4%)	(99.1%)	(79.8%)	(98.1%)	(97.4%)	(72.5%)	(94.8%)	(100%)
Present Prog.	56	21	1	73	8	1	138	24	0
	(13.5%)	(2.6%)	(0.9%)	(20.2%)	(1.9%)	(2.6%)	(27.5%)	(5.2%)	(-)
Total	415	796	112	362	418	39	502	465	62

Table 4.3: Number of tokens and proportion of each marker (i.e., Simple Present vs. Present Progressive) across different time periods for the different readings of the Imperfective domain: PROG: *event-in-progress*, HAB: *habitual*, and CONT: *continuous*.

As we can see in the quantitative data, most of the variation between markers occurs in the *event-in-progress* reading. However, there is also some variation between markers in

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[7]These are cases where it is impossible to determine whether the marker is conveying an *event-in-progress* or a *habitual* reading. Most of the times, the problem of determining the reading is due to the inherent *ambiguity* of these markers, providing support to the one-conceptual structure analysis presented in Chapter 3. In a few cases, both the *event-in-progress* reading and the *habitual* reading seem to hold at the same time; for instance, when conveying that a habitual event is also occurring at reference time. A detailed analysis of the source of the indeterminacy in these cases —and what they can tell us about the diachronic trajectory of these markers— is left for further research.

the case of the *habitual* reading, showing that the Present Progressive marker has increased its frequency for that reading over time. I thus undertake the analysis of the distribution of these markers in each reading separately, given that we are studying whether a speaker choses one or the other marker whenever they have in mind a predefined conceptual idea of the reading they want to express. We leave aside the cases of the *continuous* reading since they almost invariably appear marked with the Simple Present.

4.5.1 On the distribution of Simple Present and Present Progressive markers in the expression of the *event-in-progress* reading

An analysis of the effect of the different factors on the distribution of the Present Progressive marker and the Simple Present marker in the expression of the *event-in-progress* reading was performed. The main hypothesis under consideration is that Shared Perceptual Access should have a significant effect on predicting the appearance of one or the other marker, in interaction with the time period of the data. In Old Spanish, we expect both markers to be dependent on this contextual condition. However, by Contemporary Spanish, the prediction is that the Present Progressive marker would not need to satisfy this contextual requirement, while the Simple Present marker would have increased its need for contextual support.

Main effects

Under a linear mixed effect analysis that studies the effect of the proposed factors on the choice of variant, we observe a significant effect of time period ($\chi^2(2) = 9.5093, p < .01$), now limited to the *event-in-progress* reading. A post-hoc test corrected by Tukey shows significant differences in the preference of marker across time periods: while in every synchronic cut the majority marker is the Simple Present (i.e., the number of Simple Present tokens is significantly larger than the number of Present Progressive tokens), the increase of Present Progressive tokens from one period to the next one is such that produces significant differences across time periods (Old Spanish - Golden Age Spanish: $\beta = 3.2959, p < .001$; Golden Age Spanish - Contemporary Spanish: $\beta = 2.3938, p < .001$; Old Spanish - Contemporary Spanish: $\beta = 5.6898, p < .001$). Figure 4.2 shows the number of tokens for

each marker across time periods when conveying an *event-in-progress* reading. Differences between ratios across columns are all significant.
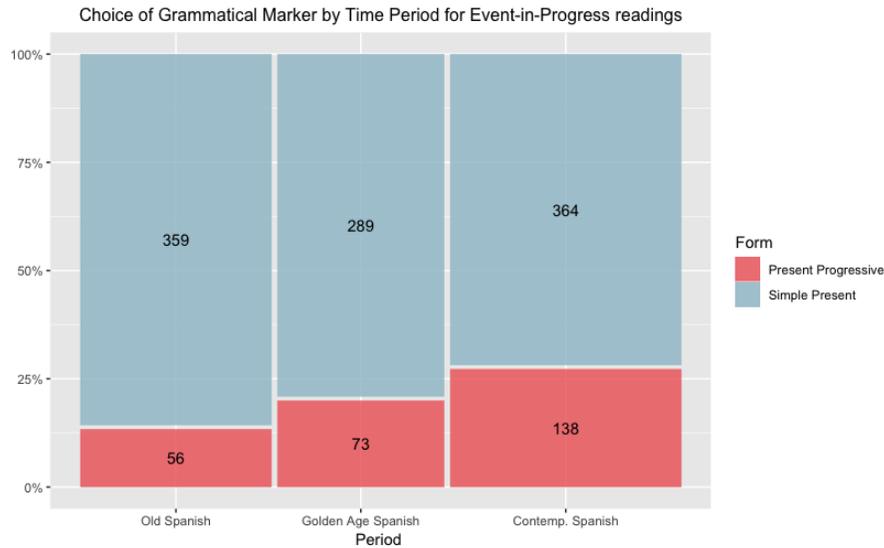
Figure 4.2: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading across different time periods.

A second significant main effect on the data corresponds to the presence or absence of shared perceptual access between speaker and hearer to the event described by the predicate ($\chi^2(1) = 48.531, p < .001$). There are 104 cases (8.13%) where it is impossible to determine whether speaker and hearer share perceptual access to the event, so further analysis on this effect was done with respect to the remaining 1,175 cases. A post-hoc comparison corrected by Tukey reveals that the presence of shared perceptual access significantly favors the appearance of the Simple Present marker to convey an *event-in-progress* reading ($\beta = 2.534, p < .001$). In Figure 4.3 we can see that contexts that guarantee shared perceptual access between speaker and hearer favor the appearance of Simple Present marking in the expression of the *event-in-progress* reading. Conversely, when this contextual requirement is not met, use of the Present Progressive marker is greatly increased.

Another significant factor in the linear mixed effect model is Grammatical Number ($\chi^2(1) = 5.303, p < .05$). A multiple comparison corrected by Tukey shows that Plural number enhances the appearance of Present Progressive marking for the expression of an *event-in-progress* reading ($\beta = 0.51, p < .05$). Figure 4.4 illustrates this main effect.

79
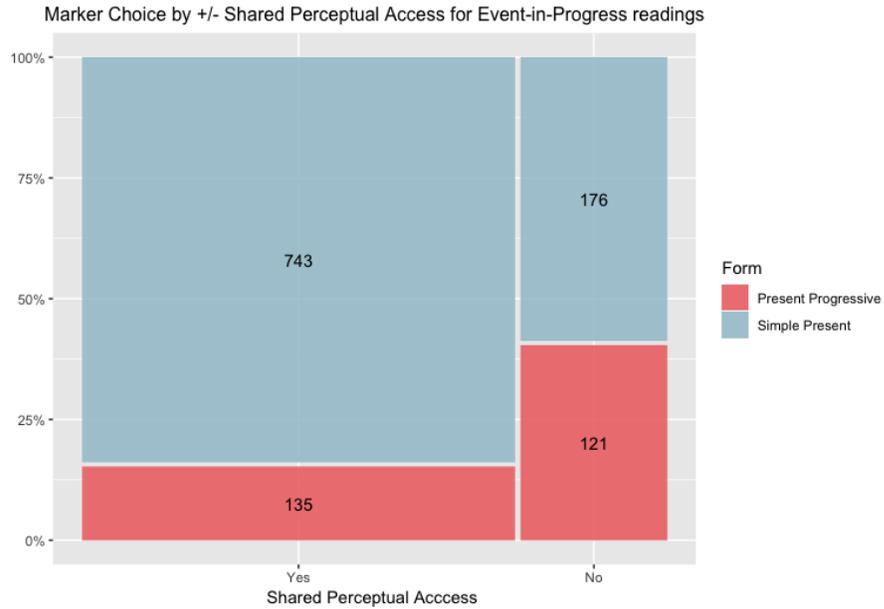
Figure 4.3: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading by presence or absence of shared perceptual access between speaker and hearer to the event described by the predicate.
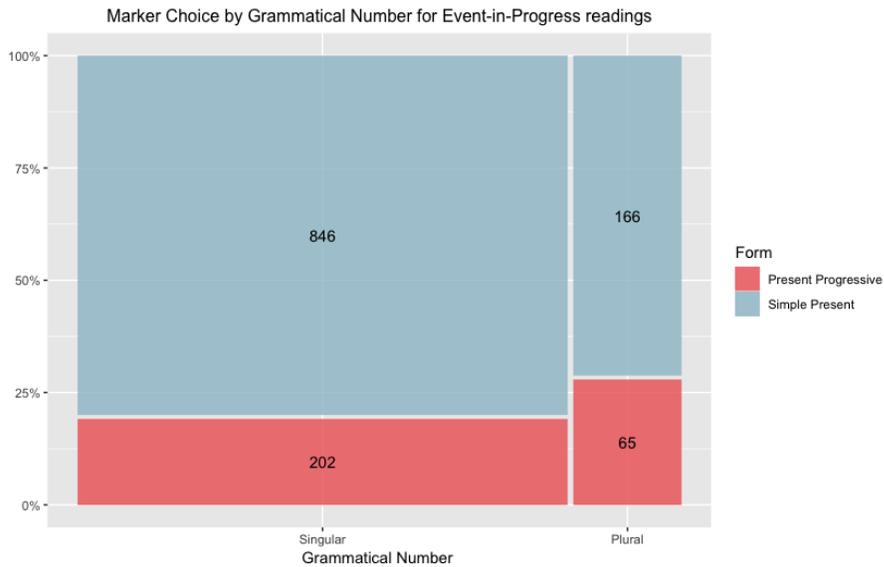
Figure 4.4: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading by grammatical number.
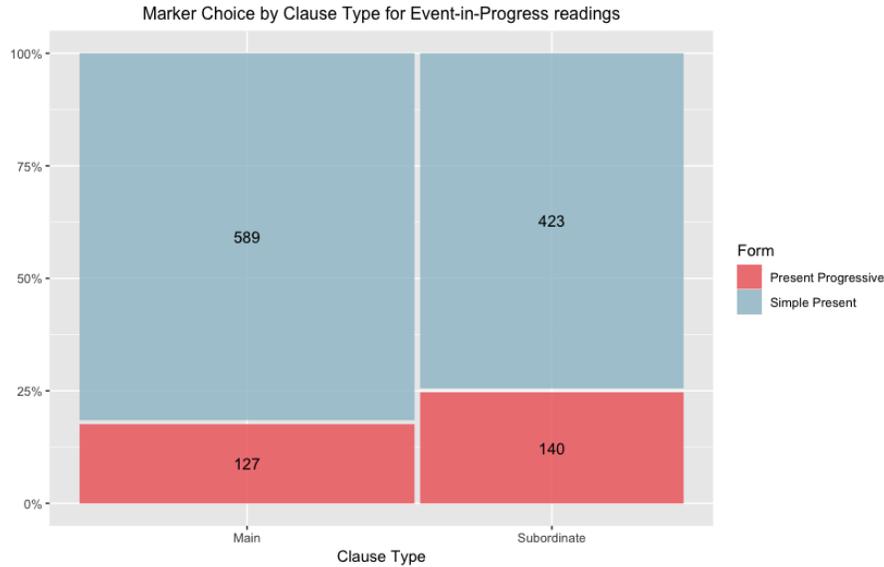
Figure 4.5: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading by clause type.

An additional significant main effect is due to Clause Type $(\chi^2(1) = 4.198, p < .05)$. The difference seems to indicate that subordinate clauses significantly boost the number of Present Progressive tokens in comparison to main clauses. However, when corrected by Tukey for multiple comparisons, the effect does not reach significance $(\beta = 0.2774, p = .163)$. We can see the difference in number of tokens per clause type in Figure 4.5.

Finally, the polarity of the sentence in which the marker appears also turns out to be a significant main effect $(\chi^2(1) = 13.276, p < .001)$. A multiple comparison analysis corrected by Tukey shows that negative polarity contexts significantly favor the use of Simple Present marking to convey an *event-in-progress* reading. Figure 4.6 presents the number of tokens of each marker for each type of polarity context: we can see that there is only one case of a Present Progressive marker showing up in a negative polarity sentence.

No other main effects are found in the data under consideration (Grammatical Person: $\chi^2(2) = 2.692, p = .260$; Force: $\chi^2(1) = 2.077, p = .354$; Co-occurrence of Locative Expression: $\chi^2(1) = 0.131, p = .717$; Co-occurrence of Temporal Expression: $\chi^2(1) = 3.278, p = .071$).
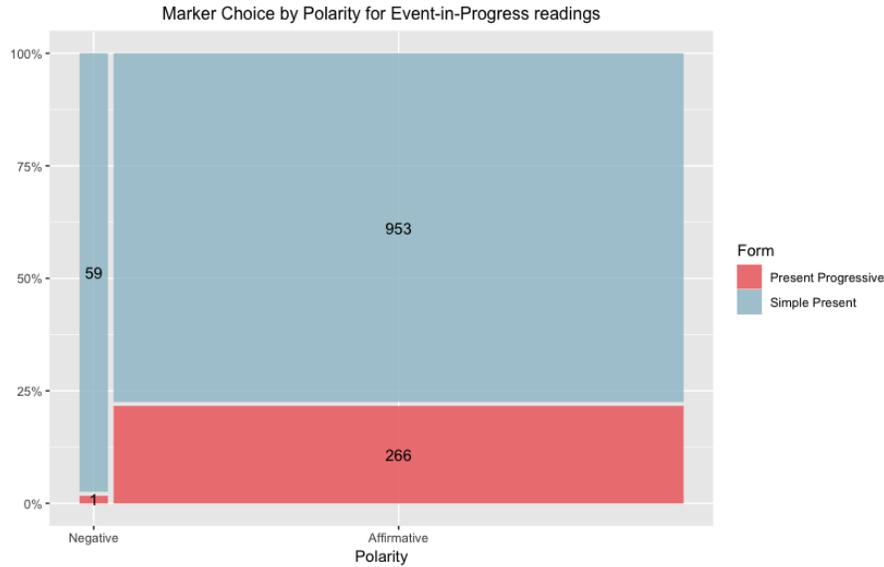
Figure 4.6: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading by polarity of the sentence.

Interaction effects

To be able to observe differences across time periods, we need to look at interactions effects. Are there significant changes over time in how the factors under consideration affect the choice of variant between the Simple Present marker and the Present Progressive marker when conveying an *event-in-progress* reading? A first significant interaction is found between Time Period and Shared Perceptual Access ($\chi^2(2) = 27.893, p < .001$). Given the significant interaction, we can subset the data by Time Period and analyze the effect of Shared Perceptual Access on each period of time. For Old Spanish, a model that has Shared Perceptual Access as a predictor does not perform better at explaining the data than the null hypothesis ($\chi^2(1) = 2.1015, p = .1472$). By contrast, the presence of shared perceptual access between speaker and hearer to the event described by the predicate becomes a significant predictor in Golden Age Spanish ($\chi^2(1) = 12.996, p < .001$). A multiple comparison analysis corrected by Tukey shows that shared perceptual access favors the appearance of the Simple Present marker in Golden Age Spanish ($\beta = 1.757, p < .001$) —in turn, the Present Progressive marker does not need this kind of contextual support anymore to convey an *event-in-progress* reading. This effect remains significant and increases
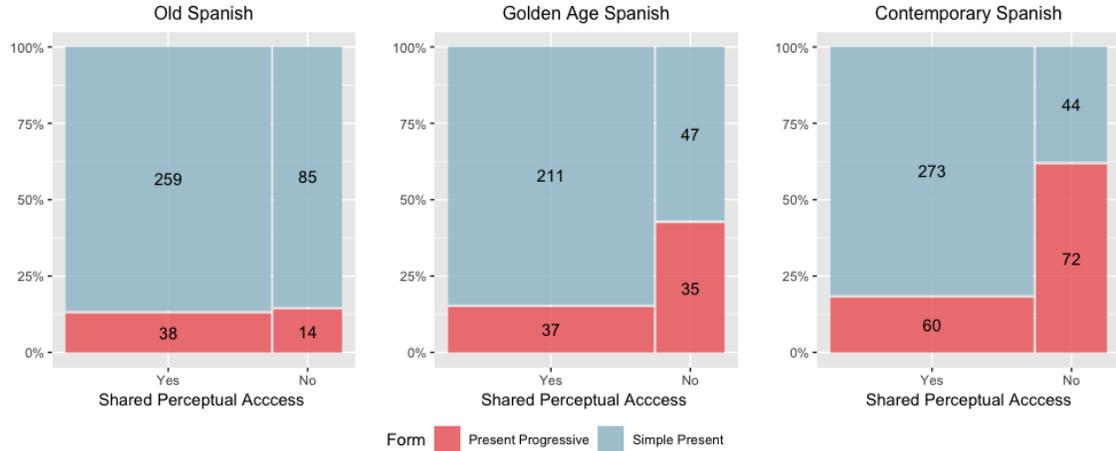
Figure 4.7: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading by presence/absence of shared perceptual access between speaker and hearer to the event described by the predicate in each time period under consideration.

its size in Contemporary Spanish ($\chi^2(1) = 72.329, p < .001$), showing that while Simple Present marking requires contextual support in the form of shared perceptual access between speaker and hearer to convey an *event-in-progress* reading, the Present Progressive marker can be used with the same purpose in a broader set of contexts ($\beta = 2.352, p < .001$).

In the Figures in 4.7 we can horizontally compare the different graphs and observe the interaction between Time Period and Shared Perceptual Access. While in Old Spanish the proportion of Present Progressive tokens that do not require contextual support is not significantly different from the proportion of Present Progressive tokens that need contextual support, this difference becomes significant in Golden Age Spanish and in Contemporary Spanish, when the Present Progressive marker can freely appear conveying an *event-in-progress* reading in contexts that do not guarantee shared perceptual access between speaker and hearer to the event described by the predicate. Conversely, we can observe that the contextual requirement for the Simple Present marker —i.e., that there is shared perceptual access between speaker and hearer to the event described by the predicate— increases its size across the different time periods.

A second significant interaction is found for the effect of grammatical person across time periods ($\chi^2(6) = 35.894, p < .001$). Given the significant interaction, we can consider the data by Time Period and analyze the effect of Grammatical Person on each subset
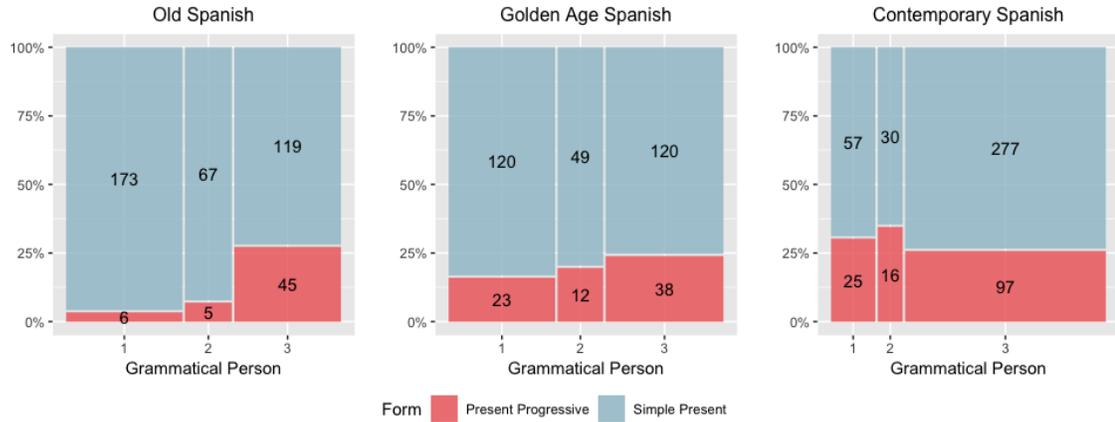
Figure 4.8: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading by grammatical person in each time period under consideration.

of data. The effect is only significant in Old Spanish ($\chi^2(2) = 30.999, p < .001$), and it disappears in Golden Age Spanish ($\chi^2(2) = 2.319, p = .314$) and Contemporary Spanish ($\chi^2(2) = 5.379, p = .068$). A multiple comparison analysis with Tukey correction on the Old Spanish data shows that 3rd person-marking significantly favors the appearance of the Present Progressive marker to convey an *event-in-progress* reading. This difference is significant between 3rd and 1st person ($\beta = 2.89, p < .001$) and between 3rd and 2nd person ($\beta = 2.419, p < .001$), favoring the appearance of the Present Progressive marker in both cases. The difference between 2nd and 1st person, on the other hand, is not significant ($\beta = 0.471, p = .812$). Figure 4.8 shows how 3rd person-marking seems to be the original context in which the Present Progressive marker could appear to signal an *event-in-progress* reading, later generalizing to 1st and 2nd person.

The interaction between the co-occurrence of a temporal expression and the time period under consideration is the third significant interaction found in the data ($\chi^2(2) = 11.937, p < .005$). Subsetting the data by time period, we find that the interaction is not significant either in Old Spanish ($\chi^2(1) = 2.067, p = .151$) or in Golden Age Spanish ($\chi^2(1) = 0.34, p = .560$). The source of the significant interaction is found in Contemporary Spanish ($\chi^2(1) = 12.621, p < .001$), where the co-occurrence of a temporal expression favors the appearance of the Simple Present marker to convey an *event-in-progress* reading ($\beta = 1.004, p < .001$).
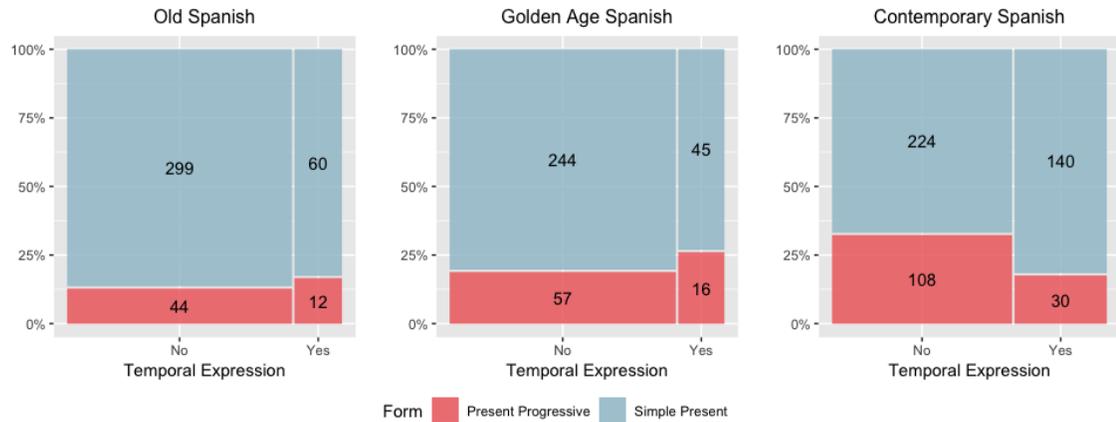
Figure 4.9: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading by presence/absence of a co-occurring temporal expression in each time period under consideration.

Figure 4.9 shows how in Contemporary Spanish the Simple Present marker increases its need for the co-occurrence of a temporal expression to convey an *event-in-progress* reading.

Finally, even if not significant ($\chi^2(2) = 6.122, p = .105$), we can take a look at the interaction between the co-occurrence of a locative expression and the time period under scrutiny. That a significant interaction would be found was the prediction based on Torres Cacoullos (2012) study, where the co-occurrence of a locative expression with the Present Progressive marker seems to be greater in Old Spanish than in Golden Age and Contemporary Spanish. Figure 4.10 shows that this is indeed the case, even if not significantly. We can see in light red the cases of Present Progressive marking: while the proportion of Present Progressive cases with a co-occurring locative is greater than the proportion of tokens without it in Old Spanish, by the time of Golden Age Spanish, the proportions are very similar. Finally, in Contemporary Spanish the direction of the effect reverses: there are more cases of Present Progressive tokens without a co-occurring locative expression than with the presence of one. No other interaction effects were found in the data.

4.5.2 On the distribution of Simple Present and Present Progressive markers in the expression of the *habitual* reading

A second set of analyses was performed to study whether the factors under consideration have an effect on the distribution of the Present Progressive marker and the Simple Present
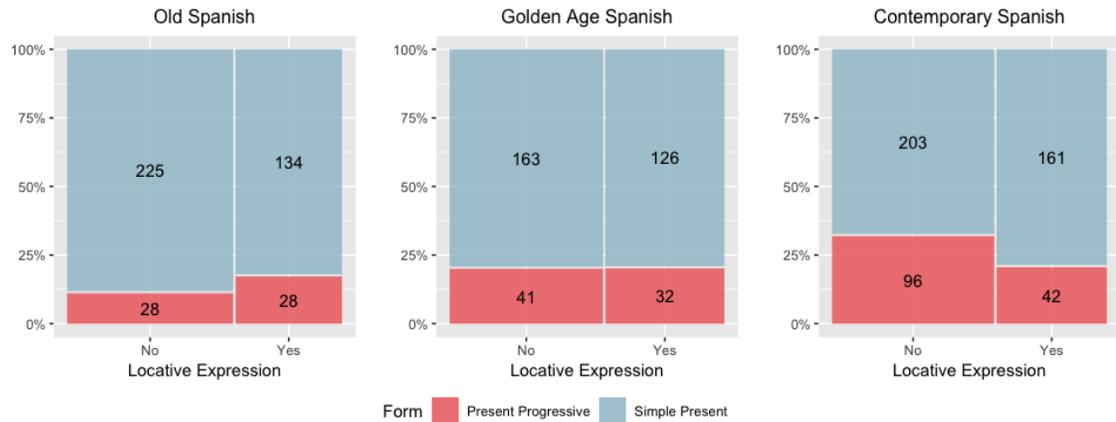
Figure 4.10: Number of Simple Present and Present Progressive tokens in corpus study for the *event-in-progress* reading by presence/absence of a co-occurring locative expression in each time period under consideration.

marker in the expression of the *habitual* reading. In this case, the main hypothesis is that in situations that present an alternative circumstance of evaluation at which the proposition does not hold, the Present Progressive marker is going to be chosen more frequently than in situations that remain neutral with respect to the availability of an alternative circumstance of evaluation. The prediction is also that this contextual requirement for the Present Progressive marker will decrease over time.

A linear mixed effect analysis was conducted to analyze the effect of the proposed factors on the choice of grammatical marker. Unfortunately, the number of Present Progressive tokens in the corpus is not high enough to allow for statistical comparisons, so all model comparisons turn out to be not significant when compared to the null hypothesis. There is no main effect of Time Period ($\chi^2(2) = 0, p = 1$), Alternative Circumstances of Evaluation ($\chi^2(1) = 0, p = 1$), Grammatical Person ($\chi^2(2) = 0, p = 1$), Grammatical Number ($\chi^2(1) = 0.023, p = .879$), Clause Type ($\chi^2(1) = 0.027, p = .868$), Force ($\chi^2(2) = 0, p = 1$), Polarity ($\chi^2(1) = 0, p = 1$), Co-occurrence of a locative expression ($\chi^2(1) = 0, p = 1$), or Co-occurrence of a temporal expression ($\chi^2(1) = 0.197, p = .6568$). There are no interaction effects either.

Nevertheless, we can do an informal overview of the data, and observe some tendencies. If we look at the number of tokens for the Simple Present marker and the Present Progressive marker across time periods, we can see in Figure 4.11 that, even if minimal, the number of

86
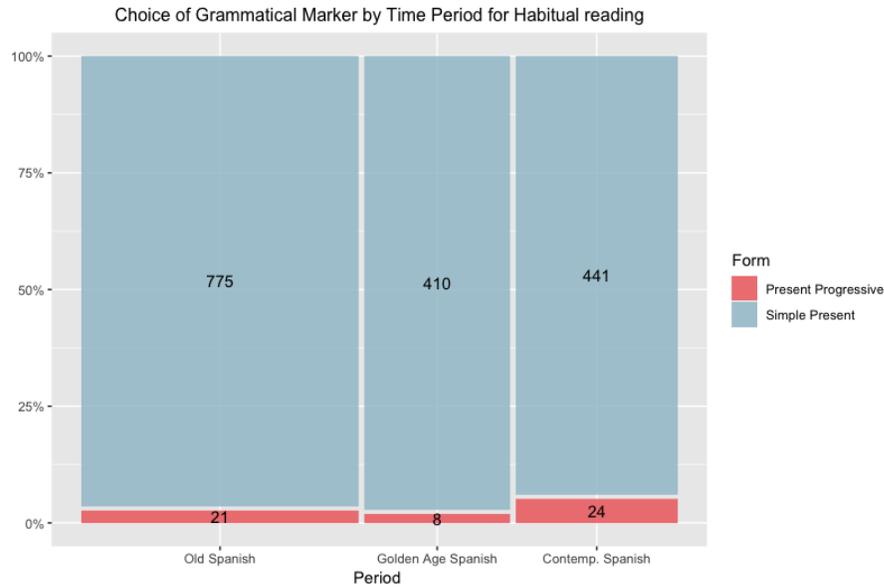
Figure 4.11: Number of Simple Present and Present Progressive tokens in corpus study for the *habitual* reading across different time periods.

Present Progressive tokens that express a *habitual* reading is slowly increasing over time. With respect to the existence of an alternative circumstance of evaluation at which the proposition under consideration does not hold, in Figure 4.12, we can also see that it seems to have an effect on increasing the choice of the Present Progressive marker in the expression of a *habitual* reading.

Finally, we can consider whether there is an interaction between these two factors. Is the Present Progressive marker being applied to a broader set of contexts as time goes by? Does the contextual requirement of a salient alternative at which the proposition does not hold become less relevant? Figure 4.13 seems to point in that direction: while almost all cases in Old Spanish and Golden Age Spanish in which the Present Progressive marker expresses a *habitual* reading require the existence of a salient alternative circumstance of evaluation at which the proposition does not hold, in Contemporary Spanish almost half of the Present Progressive tokens appear in contexts that remain neutral with respect to that contextual requirement.
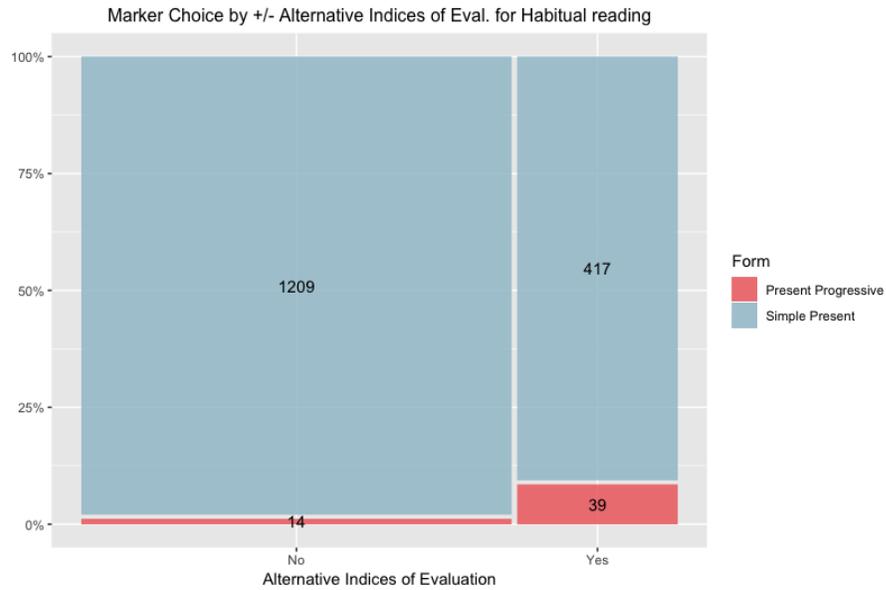
Figure 4.12: Number of Simple Present and Present Progressive tokens in corpus study for the *habitual* reading by presence/absence of an alternative circumstance of evaluation at which the proposition does not hold
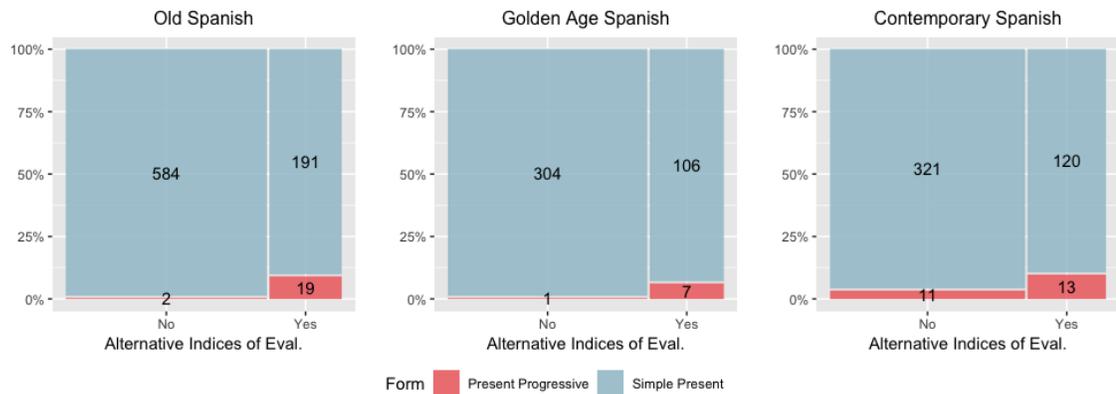

Figure 4.13: Number of Simple Present and Present Progressive tokens in corpus study for the *habitual* reading by presence/absence of alternative circumstances of evaluation at which the proposition does not hold in each time period under consideration.

4.6   Discussion

First, this corpus study confirms the steady increase in frequency of the Present Progressive marker in Peninsular Spanish since its origins in the 12th century. Specifically, this growth is driven by the development of an aspectual opposition with the Simple Present marker within the Imperfective domain, in the expression of the *event-in-progress* reading. But what factors trigger that an aspectual distinction previously recoverable from context becomes linguistically encoded in two different markers? My main hypothesis was that the Shared Perceptual Access Hypothesis —that is, whether speaker and hearer share perceptual access to the event described by the predicate— would account for most of the corpus data with respect to the *event-in-progress* reading cases. This was indeed the case. The main effect of Shared Perceptual Access shows that when aggregating data from all time periods, the Present Progressive marker needs less contextual support than the Simple Present marker to convey an *event-in-progress* reading.

It is more interesting, however, to look at the interaction effect of this factor with the different time periods. In Old Spanish, the need for shared perceptual access in the context as a means to disambiguate the reading at play was similar for the Simple Present marker and for the Present Progressive marker. By the 17th century, however, the data show that the Present Progressive marker became an autonomous device to express the *event-in-progress* reading, while the Simple Present marker still needed contextual support to be felicitous in this use. This difference in need for contextual information only increases in Contemporary Spanish, where we observe that the Simple Present marker is mostly available to convey the *event-in-progress* reading only when the context guarantees shared perceptual access between speaker and hearer. It seems that the *event-in-progress* reading is thus achieving the communicative goal of *perspective alignment* in two different ways in present-day Spanish: either by the use of the Present Progressive marker or by the use of the Simple Present marker in contexts that guarantee the achievement of this goal non-linguistically —namely, by shared perceptual access between the interlocutors.

The corpus study also indicates that the explanation about the development of the Present Progressive marker provided by Torres Cacoullos (2000, 2012) does not offer a

full picture of the factors that affect the diachronic trajectory of the marker. While the presence of a co-occurring locative expression with the Present Progressive marker does decrease over time, in these data it does not come out as a significant factor affecting the availability of the marker to express the *event-in-progress* reading. It seems that the availability of explicit locative information is just one means to guarantee that speaker and hearer share perceptual access to the event described by the predicate. And, crucially, it is not the only one —particularly, since we do not find an interaction effect between these two independent variables (viz., Shared Perceptual Access and the co-occurring of a locative expression).

There are other main effects in the data that trigger the appearance of one or the other marker for the expression of an *event-in-progress* reading. Plural number favors the availability of the Present Progressive marker. Why would this be the case? One can imagine that situations that explicitly involve more people than just the speaker can be construed as circumstances in which there is at least one potential participant with whom shared perceptual access is guaranteed. Particularly supportive of this hypothesis would be cases in which the marker appears conjugated in the 1st person plural, where an inclusive *we* could guarantee that both speaker and addressee are participating in the event. However, the lack of an interaction effect between Shared Perceptual Access and Number —maybe due to a lack of power in the data— prevents us from making a stronger claim in this respect.

Subordinate clauses also seem to favor the appearance of the Present Progressive marker. This is in line with Walker's (2001) data for English, but against the claim in Torres Cacoullos (2012) that subordinate contexts prevent the development of the aspectual opposition between the Present Progressive marker and the Simple Present marker. Further work is needed to elucidate the role of Clause Type in the emergence of Progressive markers, taking into account a more fine-grained classification of the kind of subordinate clauses in which the Present Progressive marker appears with higher frequency.

The data in the present corpus replicates the Polarity effect found by Torres Cacoullos (2012) for Spanish and by Jarmasz (2005) for English. Negative contexts strongly disfavor the appearance of the Present Progressive marker. Furthermore, since this effect is strong

both when the marker is expressing an *event-in-progress* reading and when it conveys a *habitual* reading, Torres Cacoullos (2012) might be on the right track when she argues that negative contexts disfavor the choice of this marker because speakers making use of negative utterances —which make reference to situations that did not occur— are less concerned with the aspectual distinction between *events-in-progress* and *habitual* readings.

An interesting data pattern is found in the interaction effect between Grammatical Person and Time Period. The Present Progressive marker seems to be favored in Old Spanish when the auxiliary verb is marked for 3rd person, later extending its use to 1st and 2nd person in Golden Age and Contemporary Spanish. It might be the case that when using 1st or 2nd person in Old Spanish, shared perceptual access between speaker and hearer tended to be guaranteed by non-linguistic contextual means, but that when using 3rd person, speakers felt the urge to use a device that was starting to conventionalize as the preferred means to express the *event-in-progress* reading —namely, the Present Progressive marker. A more qualitative, fine-grained analysis of the tokens in this time period could provide a better understanding of the interplay between these two factors, since quantitatively their interaction is not significant.

Finally, the data show an interaction effect between Time Period and the co-occurrence of temporal expressions. We observe that in Contemporary Spanish, the use of the Simple Present marker to convey an *event-in-progress* reading is enhanced by the appearance of a disambiguating temporal expression that restricts the interpretation of the event to the reference interval. This data pattern is expected since this kind of additional linguistic material can also achieve the effect that shared perceptual access between speaker and hearer accomplishes non-linguistically. As the Simple Present marker becomes dispreferred to express an *event-in-progress* reading, contextual support can be provided both linguistically —e.g., by a co-occurring temporal construction— or non-linguistically —by shared perceptual access between participants in the communicative act.

With respect to the expression of the *habitual* reading, we find in the corpus that it is almost completely limited to the Simple Present marker. These data disagree with Torres Cacoullos, who claims that the Present Progressive was "also more habitual in aspect" (2012: 97) in its beginnings and later developed the aspectual distinction with the Simple

Present marker. A problem with that proposal is that the author makes that claim on the basis of the availability of the Present Progressive marker to combine with lexically stative predicates in Old Spanish, a possibility that she claims to be lost as time went by. Moreover, her lexical classification is independent of context and is only based on lexical type (Torres Cacoullos 2012: 86). That kind of classification is problematic, since not all lexically stative predicates when combined with the Present Progressive marker express a *habitual* reading. For instance, one of the verbs she codes as stative is *holgar* 'rest'. This verb is used in Old Spanish in combination with the Present Progressive marker, but, as (48) below shows, the result is a *continuous* interpretation rather than a *habitual* one.

(48) Mio Cid don Rodrigo en Valencia **está**   **folgando**
      Mio Cid don Rodrigo in Valencia be.PRS.3.SG rest.GER
      'Mio Cid sir Rodrigo is resting in Valencia.'   (Cid)

The role of the Alternative Indices of Evaluation Hypothesis is also unclear from these data. While we observe a tendency for the Present Progressive marker to convey a *habitual* reading in contexts that saliently provide an alternative circumstance of evaluation at which the proposition does not hold, the amount of tokens is too small to draw any strong conclusions. It is worth mentioning, though, that this contextual requirement is partially reduced as time progresses: while in Old Spanish there are almost no tokens of the Present Progressive marker when this contextual condition is not met, in Contemporary Spanish, there is almost an equal amount of tokens of the Present Progressive marker when the context provides access to an alternative circumstance of evaluation than when it does not.

4.7   Conclusions

This chapter has provided a first approximation to the development of the Present Progressive marker in Spanish and its slow encroachment into the domain of the Simple Present marker. I have shown that the Present Progressive marker arises in Spanish in the 12th century to mainly express the *event-in-progress* reading, but that it can also convey the *habitual* reading since its emergence in the language. This is predicted by the existence of a shared conceptual structure for the PROGRESSIVE and the IMPERFECTIVE meanings, since

even if one marker can preferentially express one reading within the Imperfective domain, it always has access to the whole conceptual representation.

We have focused on the contextual factors that trigger the different distributions between the Simple Present marker and the Present Progressive marker across different time periods for the expression of the different readings of the Spanish Imperfective domain. In the case of the *event-in-progress* reading, the main finding is that shared perceptual access between speaker and hearer is a significant predictor of the increase in use of the Present Progressive marker. While in Old Spanish this contextual constraint appears to be necessary to disambiguate the *event-in-progress* reading both when using the Simple Present marker or the Present Progressive marker, by the time of Golden Age Spanish, the Present Progressive marker seems to have liberated itself from this contextual requirement. On the other hand, the Simple Present marker still required this contextual support in Golden Age Spanish to convey an *event-in-progress* reading. This tendency significantly increases in Contemporary Spanish, such that the difference between the Present Progressive marker and the Simple Present marker with respect to their context-dependence becomes more robust. Another relevant contextual factor in the *event-in-progress* data is the co-occurrence of temporal expressions: in Contemporary Spanish, the Simple Present marker appears more often than the Present Progressive marker when there is a temporal adjunct in the same clause. This points to its inherent ambiguity, so that the intended *event-in-progress* reading needs to be clarified with a co-occurring temporal expression.

When analyzing the expression of the *habitual* reading in the corpus, I have shown that the Simple Present marker is still overwhelmingly the preferred device. Even if there is a tendency in favor of the Alternative Circumstances of Evaluation Hypothesis, we need further evidence to prove its validity. A possible cause for this lack of results is that we are analyzing textual evidence, which tends to be more conservative than oral interactions. Moreover, all the corpus work was done in Peninsular Spanish, a dialectal variety known for being relatively restricted with respect to its use of *estar* (see Sánchez Alonso 2018 for a comparison of uses of *estar* across different Spanish dialects).

To better understand the nature of the distribution of the Simple Present marker and the Present Progressive marker in present-day Spanish, and to test the relevance of the Shared

Perceptual Access Hypothesis and the Alternative Circumstances of Evaluation Hypothesis in advancing the grammaticalization path from PROGRESSIVE-to-IMPERFECTIVE, we need to overcome the limitations of corpus work. We need to use methods that allow us to study dialectal synchronic variation in ways in which we can manipulate in a precise fashion the role of contextual information. Experimental methods such as large-scale acceptability judgments tasks can prove useful to do so. Self-paced reading studies can also show us how these contextual constraints are actually at work in the real-time interpretation of these markers —that is, how the diachronic change is ultimately advanced by the role of processing costs in speaker-hearer interactions. Chapter 5 and Chapter 6 present these experimental studies for the *event-in-progress* reading and the *habitual* reading respectively.

Chapter 5

The *categoricalization* of the Simple Present and the Present Progressive: from a *partially context-dependent* stage to an *explicit marking* stage

5.1 Introduction

The experimental studies in this chapter[1] explore the **Shared Perceptual Access Hypothesis** presented in §3.5 and its cognitive and communicative grounding in the general communicative goal of **Perspective Alignment**. The key idea is to look at the patterns from the corpus study through a different approach; namely, by looking at the synchronic variation between the Present Progressive and the Simple Present markers across different dialectal varieties. After summarizing the analysis for the distribution of these markers when conveying an *event-in-progress* reading, the first study, an acceptability judgments task, investigates native speakers' acceptability of these markers to express the *event-in-progress* reading across three different dialects of Spanish: Central Peninsular Spanish, Mexican Altiplano Spanish, and Rioplatense Spanish. The second study, presented in the second half of the chapter, is developed in a self-paced reading paradigm, so that it investigates the real-time processing of these markers in present-day Spanish across the same three dialects.

5.2 The *event-in-progress* reading in present-day Spanish

Consider once again the sentences in (1), repeated below as (49):

(49)   a. Ana est-á   fuma-ndo   ahora.
          Ana be-PRS.3.SG smoke-PROG now

          'Ana is smoking now.'

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[1]This chapter is based on the work presented in Fuchs et al. (2020a, b) for the acceptability judgments tasks, and in Fuchs & Piñango (forthcoming) for the self-paced-reading experiments.

  b. Ana fum-a   ahora.
     Ana smoke-PRS.3.SG now

     'Ana is smoking now.'

These sentences show that the *event-in-progress* reading can be expressed in Spanish through the use of the Present Progressive marker (49a) or through the use of the Simple Present marker (49b). The traditional assumption about this system is that these two forms are in *free alternation*, so that a speaker who intends to convey the *event-in-progress* reading may use either (49a) or (49b) randomly (Bertinetto 2000, Comrie 1976, Marchand 1955, *i.a.*). Yet the claim that these two variants alternate freely has not been empirically justified. Instead, it seems to have been a consequence of the difficulty to identify the factors that might underlie a possible distributional pattern, factors that ultimately underpin the diachronic process observed between the two markers in the corpus study.

By contrast, I have proposed in Chapter 3 that the use of these markers to express the *event-in-progress* reading is subject to contextual constraints —a possibility that further suggests that synchronic variation patterns are fundamentally rooted in properties of meaning structure that ultimately guide diachronic change. Specifically, I have claimed that when conveying information about an event that is unfolding at reference time, a speaker must assess whether she and her interlocutor have shared perceptual access to the event described by the predicate. The speaker can choose to use the Simple Present marker in (49b) only when she can rely on shared perceptual access to provide the extra-linguistic cues that point to the *event-in-progress* reading; in the absence of sufficient extra-linguistic context that guarantees this reading, she needs to use the Present Progressive marker in (49a).[2] This is, in a nutshell, the **Shared Perceptual Access Hypothesis**, which will be tested in the following sections through an acceptability judgments task and by a self-paced reading study. This set of experiments also serves as a clear test case for the communicative analysis based on Perspective Alignment, and for testing the implications of a unified conceptual structure for both the PROGRESSIVE and IMPERFECTIVE meanings of the Imperfective aspectual domain.

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[2]The Present Progressive marker exhibits the *event-in-progress* as its most salient reading, even if it has the potential to access other readings given its connection to the shared conceptual structure for Imperfectivity. It does so by allowing modification of the measure of the regular partition, and thus referring to a superinterval of the reference interval.

5.3 Study 1: Acceptability judgments tasks

I first test this hypothesis through three sentence acceptability studies —one per dialectal variety under consideration: Central Peninsular Spanish, Mexican Altiplano Spanish, and Rioplatense Spanish. To incorporate the relevant extra-linguistic cues that modulate the acceptability of the Simple Present marker according to the hypothesis, *context* is operationalized as an independent variable with two different levels based on the amount of contextual information they contain: Rich Experiential Contexts and Poor Experiential Contexts. A Rich Experiential Context places both speaker and hearer in the same perceptual environment such that they both have equal visual access to the physical surroundings in which the event described by the utterance takes place (in a similar way to the *copresence* constraints described in Clark & Marshall 1981 for definite reference interpretation). This contextual property is the factor that allows the hearer to access more easily the *event-in-progress* reading of an utterance marked with the Simple Present. A Poor Experiential Context lacks this feature —in this context, the physical environment is not shared, and it is this reduction in shared information what affects the hearer's ability to access the intended *event-in-progress* reading from the utterance containing the Simple Present marker. Therefore, in those cases, the speaker needs to use the Present Progressive marker to convey an *event-in-progress* reading. An example of each kind of context, combined with either the Present Progressive marker or the Simple Present marker can be seen below in (50):

(50)   a.   **Rich Experiential Context**: *Ana llega a su casa de trabajar y va a buscar a su hijo a su habitación para ver cómo está. Golpea la puerta, la abre, y ve al hijo sentado en el escritorio. Antes de que ella diga nada, el hijo le dice:* **Estoy haciendo / Hago** *la tarea.*

'Ana comes home from work, and goes to her son's room, to check how he is doing. She knocks on the door, opens it, and sees him sitting at his desk. Before she can say anything, her son tells her: I **am doing / do** homework.'

b. **Poor Experiential Context**: *Ana llega a su casa de trabajar y va a buscar a su hijo a su habitación para ver cómo está. Golpea la puerta, pero el hijo no contesta. Antes de que ella llegue a abrir la puerta, el hijo le dice:* **Estoy haciendo / Hago** *la tarea.*

'Ana comes home from work, and goes to her son's room, to check how he is doing. She knocks on the door, but her son does not answer. Before she opens the door, her son tells her: I **am doing / do** homework.'

Here is how the Shared Perceptual Access Hypothesis works with respect to these examples. The proposal is that in the Rich Experiential Context, where Ana sees her son after opening the door, and the son knows that his mother is watching him perform the event that will be the focus of his utterance, he can use the Simple Present marker to convey his intended *event-in-progress* reading. He can also, of course, use the Present Progressive marker with that purpose. In the case of the Poor Experiential Context, where Ana's son speaks before his mother gets to open the door, his awareness that his mom is not watching him engage in the event that will be the focus of his utterance makes him pick the Present Progressive marker to convey the intended *event-in-progress* reading. According to the Shared Perceptual Access Hypothesis, using the Simple Present marker in this circumstance, with a context that does not present the necessary extra-linguistic cues for correct interpretation, would be dispreferred.

If the two markers are in *free variation* with respect to this parameter, changing the larger situational context for a sentence with the Present Progressive marker or with the Simple Present marker should not yield a change in the degree of acceptability for either marker to convey the *event-in-progress* reading. However, if the Shared Perceptual Access Hypothesis is on the right track, the acceptability of the use of the Simple Present marker with an *event-in-progress* reading will be modulated by the richness of the context. In Rich Experiential Contexts, both markers should be accepted equally to convey the *event-in-progress* reading. By contrast, in Poor Experiential Contexts, the preferred way to convey this reading would be the use of the Present Progressive marker, given that, unlike the

Simple Present marker, it is the preferred and conventionalized way to convey this reading, reducing the possibility of miscommunication.

In summary, the sentence acceptability studies were designed with three goals: (i), to provide a clear picture of which diachronic sub-stage in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path different dialectal varieties of present-day Spanish are in; (ii), to test whether the markers are in free variation or have a contextually determined distribution, and (iii), if the use of the markers is in fact affected by context, to provide a way to operationalize the richness of the context in terms of presence/absence of *shared perceptual access* as the crucial factor that modulates the choice of marker to convey the *event-in-progress* reading.

5.3.1   Materials and Design

A contextual vignette (or context-sentence pair) featuring a hearer and a speaker was presented to the participant. Following the description of the larger situational context, the speaker in the vignette is presented as uttering a sentence to the hearer. Those utterances are identical in each contextual condition. The studies had a 2x3 design, which resulted in a total of 6 conditions. The independent variables were the following:

   a. **Context**: The contextual vignettes present either a *Rich Experiential Context* or a *Poor Experiential Context*, which differ minimally. In Rich Experiential Contexts, there is enough contextual information to assume that the interlocutors share perceptual access to the event described by the predicate. Contrastively, Poor Experiential Contexts are cases in which speakers cannot assume that hearers have perceptual access to the event described by the predicate. Examples of each contextual condition are given below in (51), where the information that makes the context different in the relevant way is underlined:

   (51) a. **Rich Experiential Context**: *Ana llega a su casa de trabajar y va a buscar a su hijo a su habitación para ver cómo está. Golpea la puerta, la abre, y <u>ve al hijo sentado en el escritorio</u>. Antes de que ella diga nada, el hijo le dice:*

'Ana comes home from work, and goes to her son's room to check how he is doing. She knocks on the door, opens it, and sees him sitting at his desk. Before she can say anything, her son tells her:'

b. **Poor Experiential Context**: *Ana llega a su casa de trabajar y va a buscar a su hijo a su habitación para ver cómo está. Golpea la puerta, pero el hijo no contesta. <u>Antes de que ella llegue a abrir la puerta</u>, el hijo le dice:*

'Ana comes home from work, and goes to her son's room to check how he is doing. She knocks on the door, but her son does not answer. Before she opens the door, her son tells her:'

b. **Aspectual Marker**: The corresponding sentences to the preceding context that the speaker would utter appeared marked either with the Present Progressive, with the Simple Present, or with the Spanish *pretérito* (Simple Past), which was used as a baseline condition. Examples of each marker condition are given below in (52):

(52) a. Est-oy   hacie-ndo la   tarea.
be-PRS.1.SG do-PROG the homework

'I am doing homework.'   (*Present Progressive*)

b. Hag-o   la   tarea.
do-PRS.1.SG the homework

'I am doing homework.'   (*Simple Present*)

c. Hi-ce   la   tarea.
do-PST.PFV.1.SG the homework

'I did homework.'   (*Pretérito/Simple Past*)

All sentences in the study were declarative affirmative sentences[3] that uniformly convey an *event-in-progress* reading. The sentences had first, second, and third person singular subjects distributed evenly. The task included 30 items per condition, which resulted in a total of 180 experimental stimuli. All items were constructed by a Central Peninsular

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[3]See Chapter 4 of this dissertation, and Yllera (1999) and Torres Cacoullos (2012), on why negative and interrogative contexts favor the appearance of the Simple Present marker —the older marker in diachronic terms— in the expression of the *event-in-progress* reading.

Spanish speaker and a Rioplatense Spanish speaker, which also adapted the items to their respective dialectal varieties. Items were also adapted to the Mexican Altiplano Spanish variety by a native speaker of that dialect. Every set of items per dialect was also normed by at least two speakers of each of those dialectal varieties. For a full set of stimuli, see Appendix A.

Given that the prediction for the acceptability of the Present Progressive marker was that it would always be high —because the Present Progressive marker seems to be the preferred choice to express the *event-in-progress* reading—, 30 fillers were developed in which a past completed event was described (making them unacceptable to be expressed with the Present Progressive marker).[4] Conversely, given that the prediction for the *pretérito* marker was that it would always be rated low —because its meaning is not compatible with the *event-in-progress* reading—, another 30 filler items were constructed that described completed past events that were acceptable with the *pretérito* marker. This procedure was implemented to avoid the possibility that participants gave high scores just because they encountered the Present Progressive marker or provided only low ratings when evaluating the *pretérito* marker. In summary, these fillers were designed to obtain the opposite pattern of ratings to the one expected in the target stimuli. Another 150 fillers from an unrelated study about copula alternation in Spanish completed the stimuli, resulting in a total of 390 items.

5.3.2 Participants

Speakers of three different Spanish dialectal varieties were assessed: 39 Central Peninsular Spanish speakers (20 female, 19 male, age range 20-37 years old, M_{age} = 26.8 years old) from the communities of Madrid, Castilla-La Mancha and Castilla y León; 38 Rioplatense Spanish speakers (21 female, 17 male, age range 19-35 years old, M_{age} = 27 years old) from the City of Buenos Aires, Argentina, and 37 Mexican Altiplano Spanish speakers (19 female, 18 male, age range 19-37 years old, M_{age} = 28 years old) from Mexico City, and the

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[4]For instance, a context in which a friend asks another one out to go see a movie, and she answers that she has already seen the film. In that context, the use of the Present Progressive marker to convey an event in the past —viz., that she has already seen the film— would be unacceptable. Accordingly, the expectation is that participants would rate those sentences with low scores.

states of Mexico, Morelos, Tlaxcala, Puebla, and the south of Hidalgo. Participants were not bilingual with any other language, and had not lived either in other Spanish-speaking countries or in other states or provinces in their respective countries for more than a year. All participants had also completed at least 12 years of formal education, by self-report had no history of neurological disease or brain injury, and had normal to corrected-to-normal vision. They all provided written informed consent in accordance with the guidelines set by the Yale University Human Subjects Committee.

5.3.3 Procedure

Participants were presented with a contextual vignette; that is, by a Rich Experiential Context or a Poor Experiential Context followed by only one sentence out of the three possible ones —viz., a Present Progressive-marked sentence, a Simple Present-marked sentence, or a *pretérito*-marked sentence. They were asked to judge the acceptability of the whole context-sentence pair, and specifically whether the choice of the speaker in the contextual vignette was a felicitous one given the setting speaker and hearer were involved in. The context-sentence pair appeared together on the screen, with buttons from 1 to 5 to select a rating. Five practice stimuli were presented before the beginning of the task, together with clear instructions, which asked the participant to perform the session in a single sitting, without distractions, while in a quiet room. The instructions also presented definitions for each point in the scale from 1 to 5. A table with the definition for each point in the scale is given below in Table 5.1.

The studies were administered online in a survey Qualtrics platform during the months of December 2015 and January 2016. As stated above, there were 390 stimuli, which were divided into ten blocks of 39 stimuli each: 18 experimental stimuli + 21 fillers. These blocks were put together in sessions of either 3 or 4 blocks each, so that participants completed 3 sessions for a total of 10 blocks. There was full randomization within blocks, while the order of presentation of the blocks to the participants was pseudo-randomized, so that each subject saw the blocks in a completely different order. Each complete session lasted approximately 60 minutes. Once they were done with a session, participants received a new URL with the following session. For each session, participants were compensated with

Scale-points	Definition
1	DEFINITIVAMENTE NO: No me suena bien y no entiendo lo que la frase quiere decir. Un hablante nativo no lo diría.
	'*DEFINITELY NO: It does not sound good to me and I don't understand what the sentence means. A native speaker would not say it.*'
2	NO: No me suena bien, aunque entiendo lo que quiere decir. Un hablante nativo no lo diría.
	'*NO: It does not sound good to me, even if I understand what it means. A native speaker would not say it.*'
3	NO ESTOY SEGURO/A: Me suena bien, pero no estoy seguro/a de si un hablante nativo lo diría.
	'*I AM NOT SURE: It sounds good to me, but I am not sure if a native speaker would say it.*'
4	SI: Entiendo lo que la frase quiere decir y puede que la dijera o no.
	'*YES: I understand what the sentence means and I might or might not say it.*'
5	DEFINITIVAMENTE SI: Entiendo la frase perfectamente y yo mismo la diría.
	'*DEFINITELY YES: I perfectly understand the sentence and I would say it myself*'.

Table 5.1: Definition of the different points on the Likert-scale of the acceptability judgments task.

$10, for a total of $30. Yes-no comprehension questions were presented after 75% of the stimuli. For instance, after one of the context-sentence pairs that results from combining the contexts and sentences in the examples (51) and (52) above, a question such as *¿Ana llegó del trabajo hace unas horas?* 'Did Ana come back from work a few hours ago?' would appear on the screen. These questions were designed so that they required comprehension of the whole context-sentence pair, and could not be answered correctly by mere scanning of the vignettes.

5.3.4 Predictions

If the Simple Present marker and the Present Progressive marker were in *free variation*, ratings should not be impacted by the richness of the contextual information, and the

acceptability of the Present Progressive marker and the Simple Present marker to convey the *event-in-progress* reading should not come out as significantly different. By contrast, on the basis of the Shared Perceptual Access Hypothesis and the *perspective alignment* account, this study had the following **predictions**:

a. The Simple Present marker would receive higher ratings in sentences that are preceded by a context that indicates shared perceptual access between speaker and hearer than in contexts in which shared perceptual access between speaker and hearer cannot be assumed, given that shared perceptual access is a means of establishing the alignment of perspectives of speaker and hearer by non-linguistic means.

b. The Present Progressive marker would receive high ratings regardless of the kind of contextual information presented before, because it is the conventionalized lexical way to convey the *event-in-progress* reading, and therefore achieve the communicative goal of *perspective alignment*.

c. To the extent that there could be differences across different dialectal varieties of present-day Spanish, these differences would reflect sub-stages in the grammaticalization path from PROGRESSIVE-to-IMPERFECTIVE.

5.3.5 Results

I performed an analysis that checked participants' accuracy in the comprehension questions, by coding each answer as correct or incorrect. All subjects answered correctly more than 85% of these questions, so no subject was excluded from subsequent analyses. I also checked the ratings in the two filler conditions, as a measure of sensitivity to the task. Sentences that have the Present Progressive marker and express an *event in the past* elicited low ratings across dialects (mean = 2.18, SE = 0.05).[5] Conversely, *pretérito*-marked sentences that express an *event in the past* presented high ratings (mean = 4.51, SE = 0.04). This pattern shows that participants were not just providing high ratings for the Present Progressive marker and low ratings for the Simple Past marker, but were actually paying attention to the task.

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[5] All reported standard errors are calculated not over tokens, but over subject means.

To analyze the experimental data, I performed a linear mixed effects analysis in R (R Core Team 2018) using the *lme4* package (Bates et al. 2015). For model selection, I followed regular recommendations for linguistic analysis (Winter 2013) and performed Likelihood Ratio Tests of the full model with the effect in question against the model without it. Post hoc tests were run with the *multcomp* package (Hothorn et al. 2008), and corrected by Tukey. The reported model analyzes the effects of three variables or fixed effects —dialect, context, and aspectual marker— on the dependent variable, the participants' ratings. As random effects, the model has random intercepts for subject and item and by-subject random slopes for the effects of aspectual marker, context and grammatical person, which was the maximal random effect structure justified by the data. Visual inspection of residual plots did not reveal any obvious deviations from homoscedasticity or normality.

The model with a fixed effect of the interaction between context, aspectual marker, and dialect performs significantly better at explaining the data than the model without the effect ($\chi^2(17) = 436.13, p < .001$). Post hoc tests with Tukey correction show a main effect of aspectual marker, which significantly favors the Present Progressive marker over the Simple Present marker ($\beta = 1.23, p < .001$), and a significant main effect of context that favors Rich Experiential Contexts over Poor Experiential Contexts ($\beta = .336, p < .001$). By contrast, there is no main effect of dialect (Central Peninsular Spanish - Rioplatense Spanish: $\beta = .269, p = .127$; Mexican Altiplano Spanish - Rioplatense Spanish: $\beta = .074, p = .857$; Central Peninsular Spanish - Mexican Altiplano Spanish: $\beta = .195, p < .342$). No effects of gender or age of the participants are found in the data.

The interaction of aspectual marker by context by dialect is a significant fixed effect in the model. To assess the source of the significant difference, I subset the data by dialect and performed a linear mixed effects analysis for each dialect, analyzing the fixed effect of context and aspectual marker. Random effects were kept the same as in the *all-dialects* model (i.e., random effects were the maximal random effect structure justified by the data). For **Rioplatense Spanish**, the model with a fixed effect of the interaction between context and aspectual marker performs significantly better than the null model to explain the data ($\chi^2(5) = 109.41, p < .001$). This allows to subset the data by aspectual marker and analyze the effect of context as a fixed effect on each of the aspectual markers. In the case of the

Present Progressive marker, no significant effect of context is found ($\chi^2(1) = .276, p = .599$). No context effect is found in the case of the *pretérito* marker either ($\chi^2(1) = .300, p = .566$). However, in the case of the Simple Present marker, a significant difference shows up between contexts ($\chi^2(1) = 11.125, p < .001$). A post hoc test with Tukey correction shows a significant difference in favor of Rich Experiential Contexts over Poor Experiential Contexts for that marker ($\beta = 0.477, p < .001$).

Central Peninsular Spanish shows the same pattern as Rioplatense Spanish. A linear mixed effect analysis with the fixed effect of the interaction between context and aspectual marker performs significantly better than the null model ($\chi^2(5) = 149.01, p < .001$). Subsets by aspectual marker show no significant effect of context neither on the Present Progressive marker ($\chi^2(1) = .585, p = .445$), nor on the *pretérito* marker ($\chi^2(1) = .004, p = .950$). Once again, however, the Simple Present marker shows significant contextual modulation ($\chi^2(1) = 16.746, p < .001$), favoring Rich Experiential Contexts over Poor Experiential Contexts in a post hoc test corrected by Tukey ($\beta = .478, p < .001$).

Mexican Altiplano Spanish was subjected to the same linear mixed effect analysis. While the model with the fixed effect of the interaction between context and aspectual marker performs significantly better than the null model at explaining the data ($\chi^2(5) = 92.756, p < .001$), it does not perform better than a model that only has a main effect of aspectual marker as a fixed effect ($\chi^2(3) = 4.895, p = .18$), showing that the effect of the interaction is only due to the main effect of aspectual marker and is not modulated by the type of context. Given the particular interest for the Simple Present marker, where we expect to find context modulation, I looked at the effect of context on that particular marker, confirming the lack of a significant difference with respect to the null hypothesis ($\chi^2(1) = .185, p = .667$).

A summary of the results in terms of the participants' ratings means by context, aspectual marker, and dialect is given in Table 5.2. Standard errors are indicated in parentheses. Conditions where there are significant differences are in bold.

	C. Peninsular Spanish		Rioplatense Spanish		Mexican Spanish	
	Rich	Poor	Rich	Poor	Rich	Poor
Present Progressive	4.78(.03)	4.74(.03)	4.68(.05)	4.66(.05)	4.51(.06)	4.46(.06)
Simple Present	**4.18(.11)**	**3.70(.09)**	**3.90(.11)**	**3.43(.08)**	3.57(.12)	3.51(.12)
Pretérito	2.16(.08)	2.15(.09)	2.67(.08)	2.57(.08)	2.67(.09)	2.63(.08)

Table 5.2: Participants' ratings means and standard errors by dialect, aspectual marker and context type in acceptability judgments task for the *event-in-progress* reading.

Figures 5.1, 5.2, and 5.3 also present a summary by dialect in terms of means of the ratings, and show the significant differences between context conditions.[6]
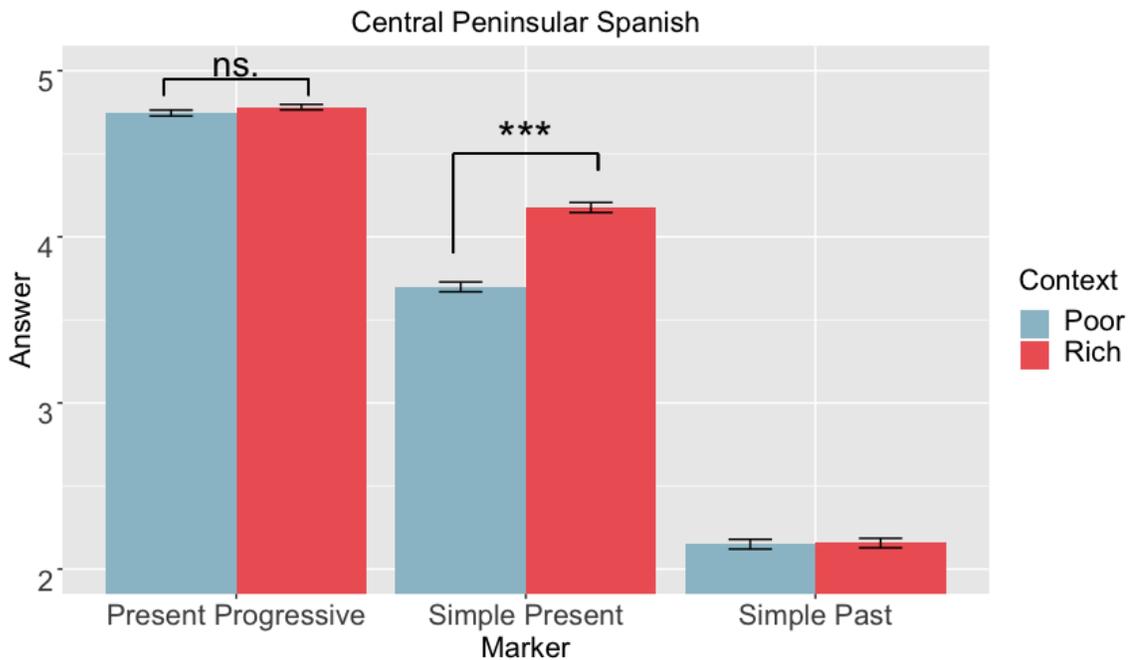
Figure 5.1: Participants' ratings means in acceptability judgments task for the *event-in-progress* reading. Effect of context on aspectual marker in Central Peninsular Spanish.

5.3.6 Discussion

This study constitutes a novel methodological approach to assess the role of context in language variation as a synchronic proxy to attested language changes. The method consists of obtaining acceptability ratings of different constructions from three samples of distinct

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[6]For all figures in this dissertation, significance is indicated as follows: * = $p < .05$, ** = $p < .01$, *** = $p < .001$, n.s. = not significant.
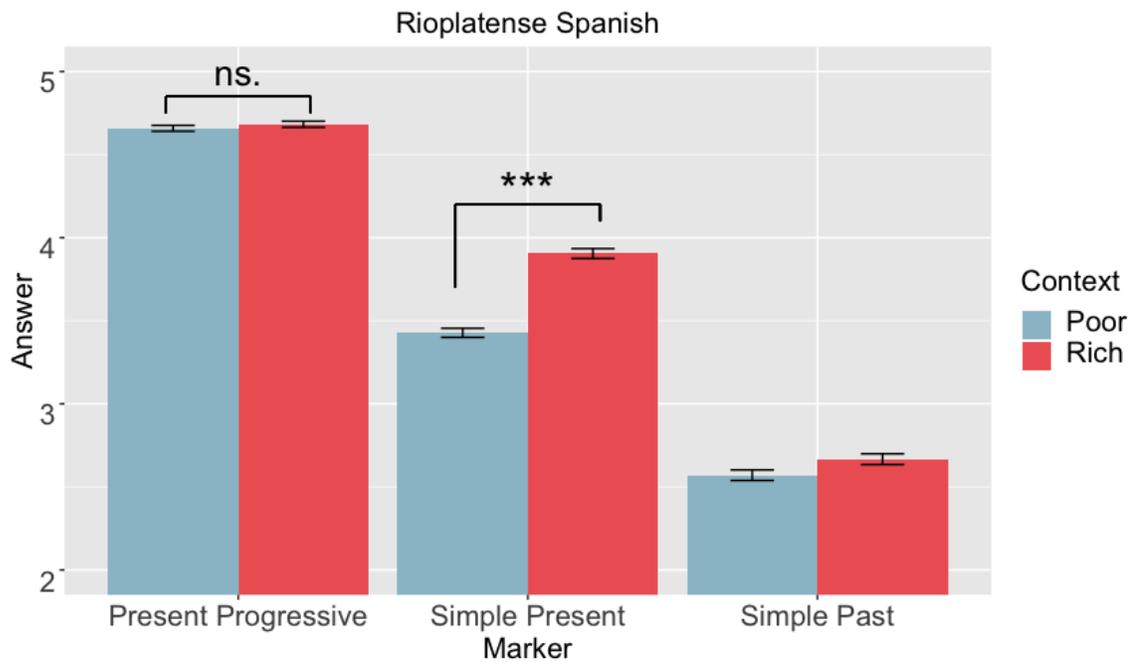
Figure 5.2: Participants' ratings means in acceptability judgments task for the *event-in-progress* reading. Effect of context on aspectual marker in Rioplatense Spanish.
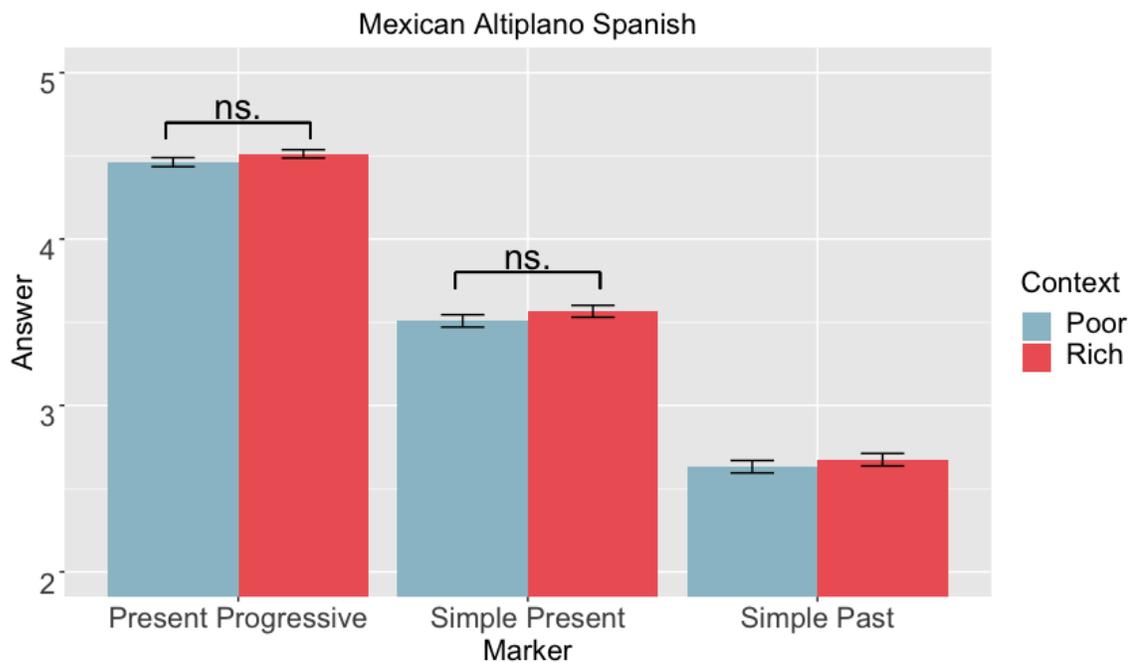
Figure 5.3: Participants' ratings means in acceptability judgments task for the *event-in-progress* reading. No effect of context on aspectual marker in Mexican Altiplano Spanish.

but similar populations; namely, speakers of three different dialectal varieties of the same language. This study demonstrates that a sentence acceptability study that manipulates the role of contextual information in a subtle —but sharp and systematic— way can be designed, and therefore we can have a better grasp at how language change operates as a result of the choices that speakers make.

The first conclusion that can be drawn from the data is that in the three Spanish dialects that were studied the Present Progressive marker and the Simple Present marker are ***not*** in free variation to express the *event-in-progress* reading. The Present Progressive marker has reached ceiling ratings in all three dialects, and it is the preferred form to express the *event-in-progress* reading. On the other hand, the Simple Present marker is not completely limited to the non-*event-in-progress* readings (viz., *habitual* and *continuous* readings), but its acceptability to convey the *event-in-progress* reading is significantly lower than that of the Present Progressive marker. In the case of Rioplatense Spanish and Central Peninsular Spanish, we find that this alternation is contextually determined —i.e., speakers have a *partially context-dependent* strategy to express the *event-in-progress* reading. In contrast, in Mexican Altiplano Spanish, the acceptability of the Simple Present marker to express the *event-in-progress* reading is low regardless of the richness of the contextual information. So, in that dialect, the main strategy to convey the *event-in-progress* reading is an *explicit marking* strategy —that is, speakers primarily use the Present Progressive marker.

The main finding concerns the kind of contextual information that modulates the acceptability of a given marker for a given reading. In particular, the acceptability of the Simple Present marker for describing events in progress was enhanced in Rioplatense Spanish and Central Peninsular Spanish when the context in the vignette assumed shared perceptual access between speaker and hearer (Rich Experiential Contexts) —moreover, the acceptability in those cases was significantly higher than when the context did not carry this feature (Poor Experiential Contexts). The cases in which this sort of rich information is presented allow the speaker to rely on this contextual information and use a more general imperfective marker, the Simple Present. Conversely, in the cases where the information given in the scenario is poor, the speaker has to assume that the hearer needs explicit linguistic information to disambiguate the reading at play and thus be able to comprehend the

intended reading. Therefore, in those scenarios, the more acceptable marker is the Present Progressive marker, while the Simple Present marker is dispreferred.

This outcome provides support to the **Shared Perceptual Access Hypothesis**: the alternation between the markers is contextually determined by whether the speaker and her addressee share perceptual access to the event described by the predicate. The factor that modulates the acceptability of the Simple Present marker is the speaker's assessment of the richness of the context, which expresses the convergence of contextual information and shared perceptual access between her and the hearer. Thus, when expressing the *event-in-progress* reading in a dialect with two distinct markers whose alternation is contextually determined, the speaker has the choice of relying on contextual information or using a marker that has conventionalized to express that reading. In the case of Mexican Altiplano Spanish, the Simple Present marker is equally dispreferred in Rich and Poor Experiential Contexts to express the *event-in-progress* reading, showing that contextual information and shared perceptual access no longer modulate the acceptability of the marker. Decreased sensitivity to contextual information correlates with lowering the acceptability of a semantically broader form.

These differences between dialects can be explained within the diachrony-based theory of synchronic variation that I propose here. We expect a Progressive marker such as the Present Progressive to emerge in a language to preferentially express the *event-in-progress* reading in Poor Experiential Contexts. For Spanish, we reason that when there was only one available marker (viz., the Simple Present marker) that expressed all possible imperfective readings, its ambiguity was more salient in Poor than in Rich Experiential Contexts. Poor Experiential Contexts could not help disambiguate between the readings, thus reducing communicative success between interlocutors. Over time, this situation motivated the recruitment of a new marker to express the *event-in-progress* reading in those contexts. This new marker later generalized to Rich Experiential Contexts, while also making the Simple Present marker more inappropriate for conveying the *event-in-progress* reading in Poor Experiential Contexts. The only situation in which the Simple Present marker would then become appropriate to express the *event-in-progress* reading would be when the context was rich enough to disambiguate the intended reading. I suggest that this is the diachronic

stage in which Rioplatense and Central Peninsular Spanish are at the moment. However, Mexican Altiplano Spanish seems to be one step further in the diachronic path. The Present Progressive marker has also become the widely-preferred option in Rich Experiential Contexts, and the Simple Present marker has dropped its acceptability regardless of the richness of the contextual information. The prediction is that it will continue in that direction until the Present Progressive marker becomes the only possibility to express the *event-in-progress* reading. In summary, we have seen in all the dialectal varieties under consideration how the spread of a new marker is a function of the available contextual information. Furthermore, I have shown that the dialectal variation has a diachrony-based explanation, following a unidirectional grammaticalization path.

With respect to the general communicative and cognitive constraints involved in the analysis of this distribution, we see that the acceptability of the Simple Present marker to express an *event-in-progress* reading increases in Rioplatense and Central Peninsular Spanish when the situational context expresses that there is shared perceptual access to the event between speaker and hearer, guaranteeing non-linguistically *perspective alignment* between them. Conversely, in cases in which the information given in the situational context does not indicate that there is shared perceptual access to the event between speaker and hearer, and *perspective alignment* is not warranted non-linguistically, the acceptability of the Simple Present marker significantly decreases. In these cases, the speaker needs to assume that the hearer can only rely on linguistic information to comprehend the intended meaning that she wants to convey, and resort to the Present Progressive marker. This pattern shows that the Simple Present marker can be used to express an *event-in-progress* reading only when the communicative goal of *perspective alignment* is achieved independently.

Finally, even in rich contexts, where *perspective alignment* is non-linguistically guaranteed, we observe that the Present Progressive marker gets higher ratings than the Simple Present marker. This pattern is accounted by invoking a key property of language production and comprehension; namely, *lexicalization* as a means to faster processing. The Present Progressive marker, by its conventionalized reference interval interpretation, has in a way become the preferred lexical means to attain the communicative goal of *perspective alignment*. By contrast, the use of the Simple Present marker to achieve *perspective align-*

ment demands the incorporation of non-linguistic information, which ultimately needs to be integrated into a unified meaning structure. As comprehension progresses, such real-time integration of linguistic and contextual information is arguably computationally costlier. And it is the avoidance of this cost what finally leads speakers to systematically prefer utterances marked with the Present Progressive.

This prediction is borne out by the variation pattern: across the three Spanish varieties, the Present Progressive marker is preferred over the Simple Present marker to convey the *event-in-progress* reading regardless of contextual information. This preference is particularly telling in the case of the Mexican Altiplano Spanish dialectal variety. In this variety, the Simple Present marker no longer shows context sensitivity effects, suggesting that the Simple Present marker is no longer able to participate in the achievement of *perspective alignment*, even when the main components to attain this communicative goal are non-linguistically provided. On the assumption that the Mexican Altiplano Spanish dialect, like the other two varieties, showed these context effects at some previous point in its diachrony, the absence of context effects in the variety's modern instantiation suggests the resolution of a competition for the linguistic signaling of *perspective alignment* between the two markers —a competition that the Present Progressive marker won. As it turns out, such a pattern is not idiosyncratic to Spanish. It is instead consistent with the well-attested cross-linguistic diachronic pattern of encroachment of the Present Progressive marker over the aspectual domain originally covered by the Simple Present marker (e.g., Bybee et al. 1994, Deo 2015).

In the next study, I test whether this communicative advantage, whereby a less context-dependent marker is preferred, is supported by an account in which this marker demands less computational resources. Can we observe these contextual constraints at play in the real-time interpretation of these markers? The hypothesis is that a less context-dependent marker saves the processor the cost of integrating the linguistic content and the non-linguistic contextual information that it would otherwise need to achieve a felicitous interpretation. To test this hypothesis, I developed a self-paced reading task that assesses whether, in the expression of the *event-in-progress* reading, the use of the Simple Present marker exerts an extra cost (compared to the Present Progressive marker) when *perspective alignment* is not independently provided by contextual means. The predictions are: (a),

that the Simple Present marker will produce slower reading times when not preceded by a context that satisfies *perspective alignment*; (b), that the Present Progressive marker will not show such contextual modulation; and (c), that if variation is again observed across dialects, it should be in the direction predicted by the grammaticalization path —that is, the Simple Present marker should produce longer reading times than the Present Progressive marker regardless of contextual information. The details of the study are presented directly below.

5.4 Study 2: Self-Paced Reading study

Here I examine the psychological implications of the *economy/expressivity* —Common Ground/Theory of Mind— calibration during real-time sentence comprehension, and the connection between this synchronic process and the larger pattern of diachronic change that is observable through semantic variation. To do so, I look again at cross-dialectal variation with respect to the use of the Simple Present marker and the Present Progressive marker to convey an *event-in-progress* reading in three dialectal varieties of Spanish —Rioplatense Spanish, Mexican Altiplano Spanish, and Central Peninsular Spanish—, but now through a self-paced reading task. I claim that such dialectal variation represents the synchronic manifestation of different substages in the PROGRESSIVE-to-IMPERFECTIVE diachronic shift.

In this study, I test the hypothesis that **shared perceptual access** is part of the calculus not only for the acceptability but for the comprehension in real-time of the Spanish Simple Present marker when conveying an *event-in-progress* reading. If true, this would indicate comprehenders' awareness during the comprehension process itself of the choice that a speaker is exercising when using a marker that needs contextual support to achieve *perspective alignment*, or when using an alternative linguistic construction —the Present Progressive marker— that preferentially conveys the intended reading, and therefore attains the aforementioned communicative goal. This would be in line with previous work on perspective-taking that shows that the interlocutors' awareness of their own and the other participant's perspectives affects real-time production and comprehension, and it is thus not a *post hoc* assessment (e.g., Nadig & Sedivy 2002, Hanna & Tanenhaus 2004, Brown-Schmidt

et al. 2008). I also argue that it is the resolution of the tension between Common Ground and Theory of Mind what triggers the mechanisms at play in these semantic variation patterns and their underlying grammaticalization trajectories.

5.4.1 Materials and Design

144 experimental items from the previous acceptability judgments task were used, consisting of 24 sextuplets of items in a 2-by-3 design. The independent variables were again Context and Aspectual Marker. Items within each sextuple were identical aside from the two main differences: the Context Type and the Aspectual Marker. As a reminder, each experimental item consists of a vignette with two parts: a context —which presents a situation that involves at least a speaker and an addressee— and a sentence, which is presented as uttered by the speaker in that context. All vignettes focus on an ongoing situation, so that the sentence uttered by the speaker is always a declarative affirmative sentence that conveys an *event-in-progress* reading.

The contexts in the experimental task were either Rich or Poor; that is, they either guaranteed *shared perceptual access* between speaker and addressee to the event described by the predicate in the test sentence (Rich context) or they did not (Poor context). The test sentences, in turn, consisted of predicates with either the Present Progressive marker, the Simple Present marker, or the *pretérito* marker, which was used again as a baseline condition, given its incompatibility with an *event-in-progress* reading. Test sentences were uniformly distributed for grammatical person, and they all had singular number.

This study also included 180 fillers from an unrelated task, which resulted in a final script of 324 items. Just as in the previous acceptability judgments experiments, all items were adapted and normed for each dialectal variety under consideration by a native speaker of such variety. For examples of each condition, see section 5.3.1.

5.4.2 Participants

I tested participants in three different dialectal varieties of Spanish: Rioplatense Spanish, Central Peninsular Spanish, and Mexican Altiplano Spanish (n = 176). Sixty participants from Buenos Aires, Argentina constitute the sample for Rioplatense Spanish (30 female, 30

male, age range 19-34 years old, M_{age} = 27 years old). Sixty participants from Madrid, Spain represent the sample for Central Peninsular Spanish (30 female, 30 male, age range 20-38 years old, M_{age} = 28 years old). Particular attention was paid to ensure that these participants were not bilingual speakers of any of the other official languages in Spain, such as Basque or Catalan. Finally, fifty-six participants were from Mexico City and its surroundings states (Mexico, Morelos, Tlaxcala, Hidalgo, and Puebla), composing the Mexican Altiplano Spanish sample (33 female, 23 male, age range 18-37 years old, M_{age} = 27.5 years old). All participants had also completed at least 12 years of formal education, by self-report had no history of neurological disease or brain injury, and had normal to corrected-to-normal vision. They all provided written informed consent in accordance with the guidelines set by the Yale University Human Subjects Committee, and were compensated with \$20 for their participation.

5.4.3   Procedure

Each participant in the study saw a unique self-paced reading script with the 324 items randomly ordered. The script was divided in four parts, with 5 to 10 minute breaks between them. The whole experiment lasted approximately 2 hours, including breaks. To ensure that participants were paying attention to the task, 75% of the sentences were followed by a comprehension question that could be answered with 'yes' or 'no'. After the end of each sentence, questions were presented in their entirety on the screen and remained there until the participant chose an answer. To prevent systematic biases, half of the questions had an expected 'yes' answer, and half of the questions had an expected 'no' answer. All of the questions required comprehension of the full context-sentence pair to be answered correctly. For the sentences that did not present a comprehension question, a screen appeared that required the participant to press 'yes' or 'no' to continue with the experiment.

Stimuli were presented using E-Prime software, following a standard noncumulative moving-window self-paced reading paradigm. For each vignette (context-sentence pair), the participants first saw a series of dashes, each representing a letter of the words in the vignette. Participants then had to press the space bar to see the first word of the context-sentence pair. After the second press on the space bar, the second word was displayed, and

the first word went back to be represented by a series of dashes. Every space bar press displayed the following word and made the previous one be replaced with dashes, until the context-sentence pair was read completely. The whole vignette was displayed with black text on a white background. Reading times were recorded for each displayed word. The regions of interest were the aspectual marker and the three words after it. Both the auxiliary verb and the gerund in the Present Progressive marker were displayed as "one word" —that is, in only one press of the space bar— to be able to compare the reading time of the marker to the reading time of the other aspectual markers.

The instructions clearly stated that the participants should read through the sentence at as a natural pace as possible while being able to comprehend the sentence in order to answer the comprehension question that followed. They were told that comprehension questions would follow most of the context-sentence pairs. Before the experiment started, participants were presented with six practice items to ensure that they had understood the task and were familiar with the experimental paradigm. All of the practice items were accompanied by comprehension questions, and participants had to answer correctly all of these questions to be able to advance to the experimental items. If they answered one of these questions wrongly, they had to begin the practice session again. No subject required to complete the practice session more than twice.

5.4.4 Predictions

The predictions in this study were the following:

1. The Simple Present marker would produce longer reading times (RTs) than the Present Progressive marker, given that it requires the integration of contextual information to the representation of the event to achieve an *event-in-progress* reading.

2. Given that the Present Progressive marker is the preferred form to express an *event-in-progress* reading, no significant differences in RTs would be observed between the two contextual conditions for this marker.

3. In the case of the Simple Present marker, sentences preceded by a Rich Experiential Context would elicit shorter RTs than sentences preceded by Poor Experiential

Contexts, given that the former but not the latter explicitly establishes shared perceptual access between speaker and hearer to the event described by the predicate, thus satisfying the contextual requirement of the Simple Present marker to convey an *event-in-progress* reading.

5.4.5 Data Analysis

The data from two subjects from the Central Peninsular Spanish sample were excluded due to technical failures, so that the analyses on those data correspond to 58 subjects. There were no technical failures in the Mexican Altiplano Spanish or the Rioplatense Spanish samples, so no subjects were excluded from those data.

Reading times were compared across the six experimental conditions for five regions of interest: the critical word (viz., the aspectual marker) and the surrounding words (one word before and three words after it). To account for word-length differences between grammatical markers, reading times were residualized; that is, a mean reading time was calculated for each region of interest, and then the reading times were centered by subtracting this mean for all values for the corresponding region (e.g. Ferreira & Clifton 1986). Given that the Present Progressive marker includes two words —while the Simple Present marker and the *pretérito* are realized by one—, reading times were also residualized by number of words. All statistical analyses were performed on this last set of residualized reading times.

5.4.6 Results

The responses to the comprehension questions were analyzed, and a cutoff was set at 85% of accuracy. Under this restriction, only two subjects were excluded from the Central Peninsular Spanish sample, and only one subject was excluded from the Mexican Altiplano Spanish sample. All Rioplatense Spanish participants answered correctly more than 85% of the comprehension questions, so no subject was excluded from that sample. Taking out the excluded subjects, the correct answers mean for Central Peninsular Spanish (n = 56) was 95.1%, for Mexican Altiplano Spanish (n = 55) was 95.9%, and for Rioplatense Spanish (n = 60) was 97.9%.

Word-by-word residualized reading times were analyzed using linear mixed effect models in R (R Core Team 2018) with the *lme4* package (Bates et al. 2015). Separate analyses were performed for each dialectal variety. For model selection and to obtain p-values, I followed regular recommendations for linguistic analysis (Winter 2013) and performed Likelihood Ratio Tests of the full model with the effect(s) in question against a model without them. Models included context type, grammatical marker, and the interaction between them as fixed effects, while as for random effects, they included random intercepts for items and participants and by-participant random slopes for context type and for grammatical marker. Post hoc tests were run with the *multcomp* package (Hothorn et al. 2008), and p-values were corrected by Tukey. No deviations from homoscedasticity or normality were observed through visual inspection of the results.

For **Central Peninsular Spanish**, one word after the grammatical marker, there is a significant main effect of grammatical marker ($\chi^2(2) = 17.681, p < .005$), and a significant interaction between context type and grammatical marker ($\chi^2(5) = 8.777, p < .05$). Post hoc tests show that the main effect of grammatical marker is explained by significantly longer reading times for the *pretérito* marker over both the Simple Present marker ($\beta = 31.048, p < .001$) and the Present Progressive marker ($\beta = 38.317, p < .001$). The interaction between grammatical marker and context type was broken down by conducting separate analyses to assess the effect of context type on each of the grammatical markers. Thus, the interaction effect is due to sentences that display the Simple Present marker: they are read significantly slower when preceded by a Poor Context than when preceded by a Rich Context ($\chi^2(1) = 8.254, \beta = 20.597, p < .005$). No other significant interactions are found at any of the other sentence segments under scrutiny (PreVerb: $\chi^2(5) = 3.342, p = .647$; Verb: $\chi^2(5) = 4.633, p = .462$; Verb + 2: $\chi^2(5) = 0.793, p = .978$; Verb + 3: $\chi^2(5) = 2.838, p = .725$). Figure 5.4 shows the residualized reading times for each of the segments and the significant interaction that is found in the Central Peninsular Spanish data.

A similar pattern is found for **Rioplatense Spanish**. One word after the grammatical marker, both a significant main effect of grammatical marker ($\chi^2(2) = 12.794, p < .005$) and a significant main effect of context type ($\chi^2(1) = 4.863, p < .05$) are revealed. A significant interaction between context type and grammatical marker is also found at that

Central Peninsular Spanish
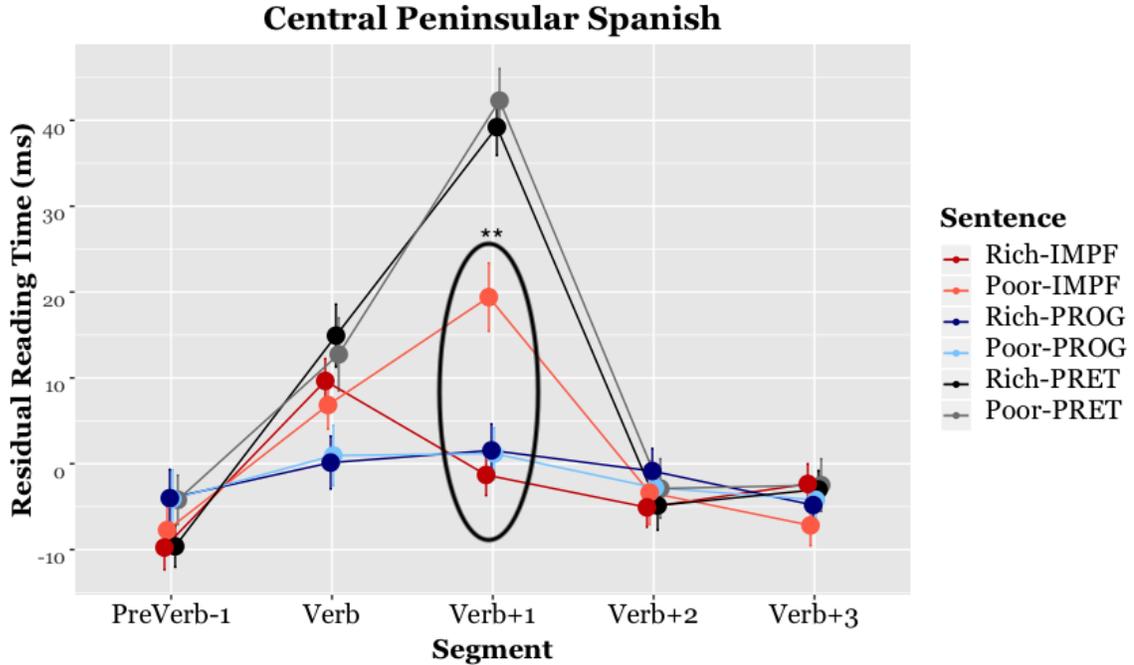
Figure 5.4: Word-number and letter-length corrected mean reading times for each context-grammatical marker pair at each relevant segment for the *event-in-progress* reading (Central Peninsular Spanish).

segment ($\chi^2(5) = 19.9, p < .005$). Post hoc tests show that once again the main effect of grammatical marker is explained by significant longer reading times for the *pretérito* marker over both the Simple Present marker ($\beta = 24.039, p < .01$) and the Present Progressive marker ($\beta = 35.469, p < .001$). The main effect of context type is due to significantly longer reading times in Poor Contexts than in Rich Contexts ($\beta = 13.983, p < .05$). However, given the significant interaction between context type and grammatical marker, separate analyses were conducted for each grammatical marker to evaluate the effect of context on each of them. Under this assessment, only sentences that display the Simple Present marker were read significantly slower when preceded by a Poor Context than when preceded by a Rich Context ($\chi^2(1) = 5.961, \beta = 27.25, p < .05$), while no such effect is found either for the Present Progressive marker ($\chi^2(1) = 0.446, p = .504$) or for the *pretérito* marker ($\chi^2(1) = 0.431, p = .512$). In Rioplatense Spanish, the main effect of grammatical marker also persists two words after the verb ($\chi^2(2) = 27.756, p < .001$). Post hoc tests show that this effect is again explained by significantly longer reading times for the *pretérito* marker over both the Simple Present marker ($\beta = 31.356, p < .001$) and the Present Progressive

marker ($\beta = 34.889, p < .001$). No other significant interactions are found at any of the other sentence segments under scrutiny (PreVerb: $\chi^2(5) = 2.583, p = .771$; Verb: $\chi^2(5) = 3.135, p = .679$; Verb + 3: $\chi^2(5) = 0.904, p = .97$). Figure 5.5 shows the residualized reading times for each of the segments and the significant interaction that is found one word after the grammatical marker in Rioplatense Spanish.
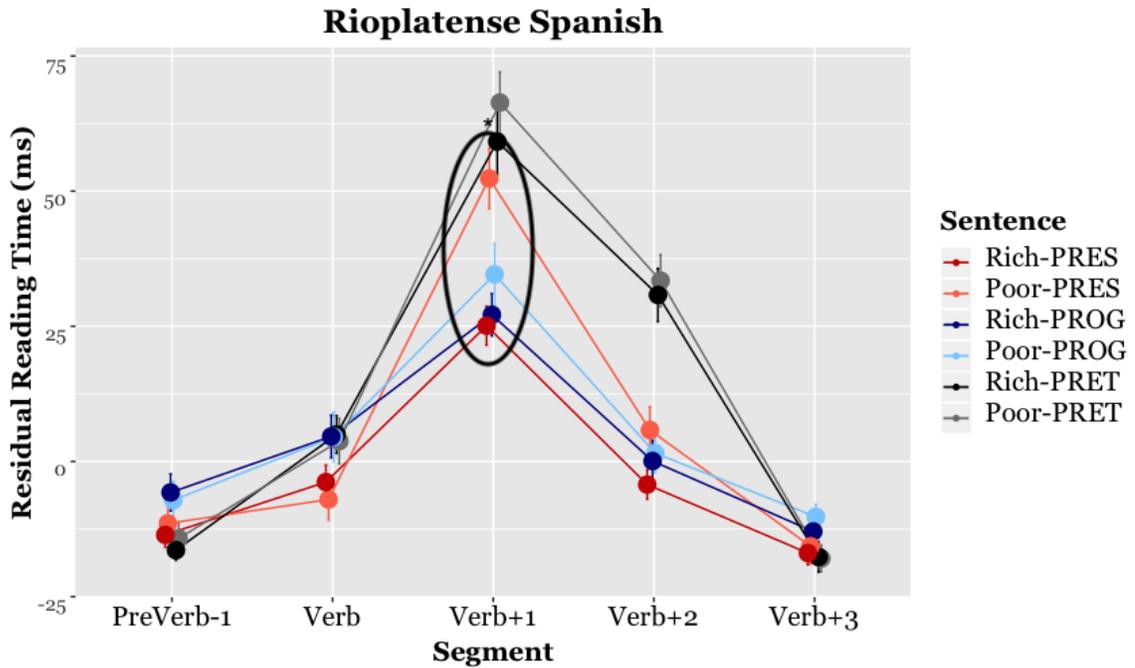
Figure 5.5: Word-number and letter-length corrected mean reading times for each context-grammatical marker pair at each relevant segment for the *event-in-progress* reading (Rioplatense Spanish).

The **Mexican Altiplano Spanish** data shows a different pattern. No significant interaction effect of the grammatical marker and the context type is found one word after the verb ($\chi^2(5) = 1.493, p = .684$). At that segment, we only find a significant main effect of grammatical marker ($\chi^2(2) = 7.697, p < .05$). Post hoc tests show that this effect is explained by longer reading times for the *pretérito* marker over both the Simple Present marker ($\beta = 22.395, p < .05$) and the Present Progressive marker ($\beta = 24.901, p < .05$). However, different from the other dialectal varieties, we also find a significant main effect of grammatical marker at the verb position ($\chi^2(2) = 8.663, p < .05$). In this case, post hoc tests with Tukey correction show that the effect is explained by significantly longer reading times both for the Simple Present marker ($\beta = 23.914, p < .05$) and the *pretérito* marker

($\beta = 24.52, p < .05$) over the Present Progressive marker. Moreover, there is no significant difference in reading times when comparing the Simple Present marker and the *pretérito* marker, regardless of contextual information ($\beta = 0.587, p = .998$). No other significant interactions are found at any of the other sentence segments under scrutiny (PreVerb: $\chi^2(5) = 1.238, p = .941$; Verb: $\chi^2(5) = 0.392, p = .942$; Verb + 2: $\chi^2(5) = 1.733, p = .885$; Verb + 3: $\chi^2(5) = 1.01, p = .962$). Figure 5.6 shows the residualized reading times for each of the segments and the significant effects that were found in the Mexican Altiplano Spanish data.
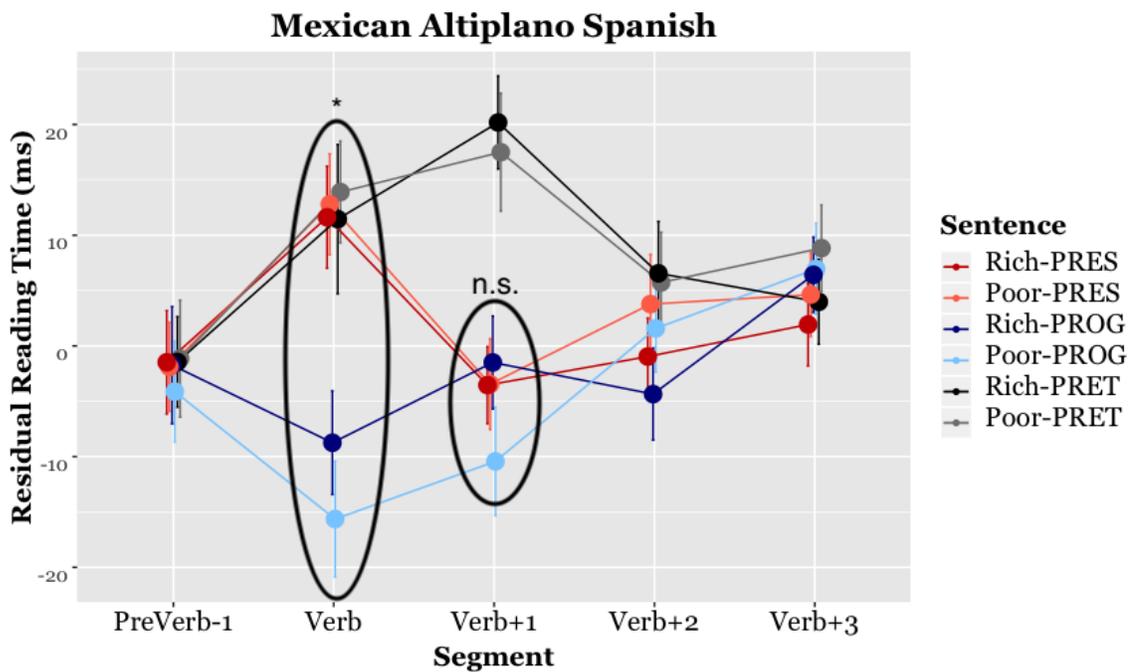
Figure 5.6: Word-number and letter-length corrected mean reading times for each context-grammatical marker pair at each relevant segment for the *event-in-progress* reading (Mexican Altiplano Spanish).

5.4.7 Discussion

Overall, the results from the self-paced reading task align with the predictions in §5.4.4: (a), reading times for the Simple Present marker condition are slower when preceded by a Poor Context than when preceded by a Rich Context in Rioplatense Spanish and in Central Peninsular Spanish; (b), no such contextual modulation is observed in any dialect for the Present Progressive marker condition; and (c), the observed variation across dialects is

in accordance with the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path, since in Mexican Altiplano Spanish the reading times for the Simple Present marker condition are slower than the reading times for the Present Progressive marker condition independent of contextual bias.

Across dialects, we observe that the use of the Simple Present marker to convey an *event-in-progress* reading exerts greater cost in comparison to the Present Progressive marker. This cost is eliminated in Rioplatense Spanish and Central Peninsular Spanish when *shared perceptual access* between speaker and addressee to the event described by the predicate is independently provided by the preceding context. This contextual information facilitates the reading of the Simple Present marker and its incorporation into the meaning representation of the event. I claim that *shared perceptual access* is a nonlinguistic means to increase Common Ground between speaker and addressee: it allows speakers of these dialectal varieties to take for granted that their addressees know their intended *event-in-progress* reading. This lets them use the Simple Present marker and exercise linguistic *economy*. When this contextual condition is not satisfied, Theory of Mind —i.e., their awareness of their addressee's different epistemic state with respect to the event at issue— pushes the speaker towards the use of the more *expressive* construction —namely, the Present Progressive marker— to convey the *event-in-progress* reading.

Mexican Altiplano Spanish behaves differently from its Rioplatense and Central Peninsular counterparts. In this dialectal variety, the presence of *shared perceptual access* between speaker and addressee in the preceding context does not produce the facilitation effect in reading times, and the extra cost of processing the Simple Present marker is observed regardless of contextual information. This last pattern in Mexican Altiplano Spanish reveals that *shared perceptual access* is no longer playing a role in increasing Common Ground between speaker and addressee for the comprehension of an *event-in-progress* reading when the Simple Present marker is used. Therefore, the only available marker for this reading is the Present Progressive one. This suggests that this dialect is further ahead in the diachronic path of PROGRESSIVE-to-IMPERFECTIVE, closer to a strict *explicit marking* stage.

I have shown that the observed variation in acceptability judgments tasks between the Simple Present marker and the Present Progressive marker can also be seen unfolding

in real-time comprehension through a self-paced reading task. This variation, together with the diachronic relation between the markers in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path, appears to be constrained by cognitive principles based on the speakers' assessment of what is Common Ground between them and their addressees, and on their assumptions about the different epistemic states of their addressees, or the speakers' Theory of Mind. A speaker's choice of marker within the Spanish Imperfective domain for the expression of the *event-in-progress* reading seems to be determined by whether or not she *shares perceptual access* with the addressee, a proxy for the expansion of Common Ground by non-linguistic means.

The observed pattern is also in line with my proposal that the *event-in-progress* reading is a means to obtain the communicative goal of *perspective alignment*. When the speaker uses the Present Progressive marker, *perspective alignment* is achieved by the sole use of the linguistic marker; in contrast, when she uses the Simple Present marker, she needs *shared perceptual access* to increase her Common Ground with the addressee in order to achieve this goal. Bearing in mind the self-paced reading data, the overall preference for the Present Progressive marker over the Simple Present marker to obtain this reading —and, therefore, attain this communicative goal— can be thought of as a means of optimizing linguistic communication: use of the more **expressive** marker demands less computational resources than the more **economical** but more context-dependent marker. Use of the more expressive but context-independent marker —namely, the Present Progressive— saves the processor the cost of integrating linguistic and contextual information to achieve the *event-in-progress* interpretation. Herein lies the source of the observed preference, and the cause for *categoricalization* of a two-marker system in the Imperfective domain. This preference for the Present Progressive marker is exacerbated in the case of Mexican Altiplano Spanish, a dialectal variety that does not show context modulation effects, suggesting that for the Imperfective domain *perspective alignment* can be only achieved by linguistic means. In this way, the Mexican Altiplano Spanish variety shows up once again as further ahead in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path.

5.5   Conclusions

The studies in this chapter have provided evidence for the role of Shared Perceptual Access (as the nonlinguistic means to achieve *perspective alignment*) in the expression of the *event-in-progress* reading in present-day Spanish. We have seen that in Rioplatense Spanish and Central Peninsular Spanish a speaker can use the Simple Present marker to convey this reading only when they share perceptual access to the event described by the predicate with their addressee. This contextual feature allows them to use the less specific marker and achieve the communicative goal of *perspective alignment* by non-linguistic means. When this contextual requirement is not met, these speakers need to resort to using the Present Progressive marker, which has conventionalized for the expression of the *event-in-progress* reading. The self-paced reading study has shown that the role of this contextual constraint is observable in the real-time interpretation of these markers. The Simple Present marker produces longer reading times than the Present Progressive marker when expressing this reading, but that extra processing cost goes away —and the processing of the Simple Present marker is facilitated— when the context clearly indicates that speaker and hearer share perceptual access to the event described by the predicate.

The pattern in Mexican Altiplano Spanish shows a dialectal variety ahead in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path, closer to an *explicit marking* stage. In this dialect, the expression of the *event-in-progress* reading is limited to the use of the Present Progressive marker, and the use of the Simple Present marker is dispreferred regardless of contextual support. The decrease in acceptability is shown to be at play in the online interpretation of the markers in the self-paced reading study —the Simple Present marker exerts an extra processing cost in comparison to the Present Progressive marker both when preceded by Rich and by Poor Contexts.

Chapter 6

The *generalization* of the Present Progressive: from an *explicit marking* stage to a *context-dependent* stage

6.1 Introduction

The experimental studies in this chapter[1] assess the **Alternative Circumstances of Evaluation Hypothesis** presented in §3.6 and its cognitive and communicative implications. Here I look at synchronic patterns of dialectal variation in Spanish between the use of the Simple Present marker and the Present Progressive marker in the expression of the *habitual* reading. The first study is an acceptability judgments task, which investigates the acceptability of these markers to express the *habitual* reading in three different dialectal varieties of Spanish: Central Peninsular Spanish, Mexican Altiplano Spanish, and Rioplatense Spanish. The second experiment is a self-paced reading study that examines the online processing of these markers in present-day Spanish when conveying this reading across the same three dialects.

Consider again the sentences in (2), repeated below as (53):

(53)   a. Ana est-á   fuma-ndo   diez cigarillos por día.
           Ana be-PRS.3.SG smoke-PROG ten cigarettes a   day
           'Ana is smoking ten cigarettes a day.'

        b. Ana fum-a   diez cigarrillos por día.
           Ana smoke-PRS.3.SG ten cigarettes a   day
           'Ana smokes ten cigarettes a day.'

In these examples, we can observe that the *habitual* reading can be expressed in Spanish through the use of the Present Progressive marker (53a) or through the use of the Simple

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[1]The acceptability judgments tasks have been reported in Fuchs & Piñango (2019).

Present marker (53b). While the use of the Simple Present marker is the norm to express this reading (e.g., NGRAE 2009), given that (53a) is acceptable —and taking into account the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path—, we can conclude that the Present Progressive marker is already encroaching into the domain of the Simple Present marker. This encroachment is arguably driven by the presuppositional content usually associated with the lexical meaning of *estar* (e.g., Maienborn 2005, Sánchez Alonso et al. 2017, Deo et al., submitted, Sánchez Alonso et al., submitted), which provides the basis for the available use of the Present Progressive marker to convey a *habitual* reading. According to this analysis, this presupposition requires the existence of an alternative circumstance of evaluation at which the proposition at issue does not hold. This alternative circumstance of evaluation is different from the current circumstance of evaluation in only one relevant parameter. In the case of the expression of the *habitual* reading with a Present Progressive marker, that parameter is usually *time*, so the proposition is said to be *temporally contingent*. These uses are the ones that are most commonly observed with the progressive periphrasis. Therefore, from a diachronic perspective, these uses would be the ones to increase the frequency of use of this marker, leading to its *generalization*.

6.2 Variation in the *habitual* reading in present-day Spanish

This section provides the basis for understanding the *categorization-to-generalization* shift, the vanguard of the diachrony in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path. In order to shed light on the mechanisms that drive this portion of the cyclic diachronic change, I investigate the contexts of use that already allow the use of the Present Progressive marker to convey a *habitual* reading. I test the proposal that the shift to generalization is driven by the semantics of *estar*, the auxiliary verb in the Present Progressive periphrasis.

Focusing on the alternation between the Simple Present marker and the Present Progressive marker, I argue that the shift towards generalization of the Present Progressive marker is at least partially driven by the contextual demands of *estar*'s lexicalized presupposition. For a sentence with *estar* to be felicitous, this presupposition requires the existence of an alternative circumstance of evaluation at which the proposition denoted by the sentence

does not hold. When the marker is conveying an *event-in-progress* reading, the relevant contrast is readily accessible and absolute: 'now', when the proposition holds, in opposition to 'not now', when the proposition does not hold. But if a new, *habitual* reading is to arise in this marker, contextual support that enables the construal of an alternative circumstance of evaluation at which the prejacent does not hold is needed.

I claim that greater informativity and expressivity are the drivers of the increased use of the Present Progressive marker. The Present Progressive marker (*estar* + V-ndo) is more informative —and therefore more expressive— than the Simple Present marker because the Present Progressive marker can convey the *habitual* reading and, due to the participation of *estar* as the auxiliary verb, implicate the consideration of a rejected alternative circumstance. This relative richness in meaning maximizes context-set restriction and proportionally increases the expressive possibilities of the construction. The greater expressivity of the marker leads to an increase in use across more contexts, which in turn leads to a decrease in the context dependence of the marker. Overtime, the use of the Present Progressive marker becomes preferable to the use of the Simple Present marker, which conveys the *habitual* reading alone. This difference in informational value and expressive possibilities is what underpins the observed encroaching of the Present Progressive marker over the Simple Present marker within the Spanish Imperfective domain.

Therefore, the experimental hypothesis is that the use of the Present Progressive marker to convey a *habitual* reading will be facilitated in contexts that present an alternative situation at which the embedded proposition does not hold. The studies presented in this chapter explore this hypothesis; namely, whether the presuppositional content of *estar*, together with the fact that the Present Progressive marker is the conventionalized lexical means to achieve *perspective alignment*, are the properties that allow for the Present Progressive marker to convey a *habitual* reading. The first presented study is a questionnaire task that investigates native speakers' acceptability judgments of the Present Progressive marker and the Simple Present marker when expressing a *habitual* reading across three different dialectal varieties of Spanish. The second study is a self-paced reading experiment that investigates the online processing of these markers when conveying the *habitual* reading across the same dialects.

6.3   Study 3: Acceptability judgments tasks

In this study, I test the Alternative Circumstances of Evaluation Hypothesis by means of three sentence acceptability studies —one per dialectal variety under consideration. To incorporate the relevant extra-linguistic context that modulates the acceptability of the Present Progressive marker according to this hypothesis, *context* is operationalized as an independent variable with two different levels based on whether or not the context provides salient access to an alternative circumstance of evaluation at which the proposition does not hold: Alternative Supporting Contexts and Alternative Neutral Contexts. An Alternative Supporting Context presents an alternative situation at which the proposition does not hold. Alternative Neutral Contexts are contexts that remain neutral with respect to the presuppositional content of *estar* and do not saliently entertain a situation at which the proposition at issue does not hold. Satisfying the presuppositional requirement of *estar* in the contextual information would allow the speaker to use the Present Progressive marker to convey a *habitual* reading. Alternative Neutral contexts lack this contextual property, and should make the use of the Present Progressive marker less acceptable, leaving the Simple Present marker as the only possible device to convey the *habitual* reading.

An example of each kind of context, combined with either the Present Progressive marker or the Simple Present marker can be seen below in (54):

(54)   a. **Alternative Supporting Context**: *Ana llega a su casa del trabajo, y ve en la puerta a su vecina del cuarto piso con ropa deportiva. La vecina le comenta:* **Estoy haciendo / Hago** *ejercicio tres veces por semana.*

'Ana gets home from work, and sees her fourth floor neighbor at the door, wearing athletic clothes. The neighbor comments to her: I **am working / work** out three times a week.'

b. **Alternative Neutral Context**: *Ana llega a su casa del trabajo, y ve en la puerta a una nueva vecina con ropa deportiva. La vecina le comenta:* **Estoy haciendo / Hago** *ejercicio tres veces por semana.*

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'Ana gets home from work, and sees a new neighbor at the door, wearing athletic clothes. The neighbor comments to her: I **am working / work** out three times a week.'

The Alternative Circumstances of Evaluation Hypothesis would work as follows with respect to these examples. I propose that in the Alternative Supporting Context, where Ana has met her *fourth floor* neighbor before, this provides an alternative circumstance of evaluation and a relevant contextual parameter (viz., a time in the past) when her neighbor did not work out three times a week. That is what would allow the neighbor to use the Present Progressive marker with the purpose of conveying a *habitual* reading. The neighbor could use the Simple Present marker too, since the use of this marker does not have any additional requirement to convey a *habitual* reading. But if she wants to add to his utterance the information that there is an alternative circumstance of evaluation at which the proposition does not hold, she must use the Present Progressive marker. In the case of the Alternative Neutral Context, on the other hand, given that Ana has just met her *new* neighbor, there is not a salient alternative circumstance of evaluation at which the neighbor did not work out three times a week. Therefore, the neighbor would not be able to use the Present Progressive marker to convey a *habitual* reading and should resort to using the Simple Present marker for that purpose.

Therefore, the sentence acceptability studies were created to: (i), provide a clear picture of which diachronic sub-stage in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path different dialectal varieties of present-day Spanish are in; (ii), test whether the Present Progressive marker can already be used to convey a *habitual* reading in specific contexts of use; and (iii), if that is the case, provide a way to operationalize the contextual information needed for the use of this marker for this reading in terms of the presence/absence of an *alternative circumstance of evaluation* at which the proposition at issue does not hold.

6.3.1 Materials and Design

I constructed a series of contextual vignettes, each involving a context-sentence pair. Each vignette features a speaker and a hearer. Following the context section of the vignette, the

speaker is presented as uttering a sentence to the hearer. This constitutes the sentence section of the vignette. Context is operationalized as a variable with two categories: (a), Alternative Supporting, containing contexts that present an alternative situation at which the proposition at issue does not hold; and (b), Alternative Neutral, containing contexts that remain neutral with respect to the presuppositional content of *estar*, and do not saliently present an alternative situation at which the proposition at issue does not hold. Following the context, the sentence uttered by the speaker displays either: (a), the Simple Present marker; (b), the Present Progressive marker; or (c), the *pretérito* marker (Simple Past), which worked as a baseline condition, given that we do not expect this marker to be able to convey a *habitual* reading. The study thus includes two independent variables: (1), context type (Alternative Supporting or Alternative Neutral), and (2), the marker contained in the sentence uttered by the speaker (Simple Present, Present Progressive or *pretérito*). This results in a 2x3 design for a total of 6 experimental conditions. Examples of these conditions are presented directly below:

a. **Context**: The contextual vignettes present either an *Alternative Supporting Context* or an *Alternative Neutral Context*, which differ minimally. Examples of each contextual condition are given below in (55), where the information that makes the context different in the relevant way is underlined:

(55) a. **Alternative Supporting Context**: *Ana llega a su casa del trabajo, y ve en la puerta a su vecina <u>del cuarto piso</u> con ropa deportiva. La vecina le comenta:*

'Ana gets home from work, and sees her fourth floor neighbor at the door, wearing athletic clothes. The neighbor comments to her:'

b. **Alternative Neutral Context**: *Ana llega a su casa del trabajo, y ve en la puerta a una <u>nueva</u> vecina con ropa deportiva. La vecina le comenta:*

'Ana gets home from work, and sees a new neighbor at the door, wearing athletic clothes. The neighbor comments to her:'

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b. **Aspectual Marker**: The sentence that the speaker would utter in the preceding context appears either with the Simple Present marker, the Present Progressive marker, or the Spanish *pretérito* (Simple Past), which was used as a baseline condition. Examples of each aspectual marker condition are given below in (56):

(56)   a.   Hag-o   ejercicio tres   veces por semana.
           do-PRES.1.SG exercise three times a   week

           'I work out three times a week.'   (*Simple Present*)

      b.   Est-oy   hacie-ndo ejercicio tres   veces por semana.
           be-PRES.1.SG do-PROG   exercise three times a   week

           'I am working out three times a week.'   (*Present Progressive*)

      c.   Hi-ce   ejercicio tres   veces por semana.
           do-PST.PFV.1.SG exercise three times a   week

           'I worked out three times a week.'   (*Pretérito/Simple Past*)

All sentences in the study were declarative affirmative sentences that uniformly intend to convey a *habitual* reading. The sentences had first, second, and third person singular subjects distributed evenly. The task included 30 items per condition, which resulted in a total of 180 experimental stimuli. Besides these stimuli, there were 140 fillers: 80 fillers from an unrelated experiment, and 60 fillers that express an *event-in-the-past* meaning, so that the *pretérito* marker is expected to be rated as acceptable, and the Simple Present marker is expected to be rated as unacceptable. This last set of fillers was designed to obtain the opposite pattern to the one that is expected with the experimental stimuli, and to check that participants are not just giving high scores to the sentences that present the Simple Present marker and low scores to the sentences with a *pretérito* marker, without paying attention. All items were constructed by the author, a native Rioplatense Spanish speaker. Items were adapted to the Central Peninsular Spanish variety and to the Mexican Altiplano Spanish variety by a native speaker of each of those dialects. Every set of items per dialect was also normed by at least two speakers of each of the corresponding dialectal variety. For a full set of stimuli, see Appendix B. Yes-no comprehension questions were presented after 75% of the stimuli. All stimuli were pseudo-randomized in 10 lists of 32 stimuli each, for a total of 320 context-sentence pairs.

6.3.2 Participants

Speakers of three different Spanish dialectal varieties performed the study (n = 120): 40 Central Peninsular Spanish speakers from Madrid, Spain (20 female, 20 male, age range 22-35 years old, M_{age} = 27.5 years old), 40 Mexican Altiplano Spanish speakers from Mexico City, Mexico (20 female, 20 male, age range 21-34 years old, M_{age} = 27 years old), and 40 Rioplatense Spanish speakers from Buenos Aires, Argentina (21 female, 19 male, age range 22-37 years old, M_{age} = 30.1 years old). All participants were between 18 and 35 years old, and had at least finished 12 years of schooling. All subjects lived in the aforementioned urban settings and had not lived in other Spanish-speaking states, provinces or countries for more than a year. All participants had also completed at least 12 years of formal education, by self-report had no history of neurological disease or brain injury, and had normal to corrected-to-normal vision. They all provided written informed consent in accordance with the guidelines set by the Yale University Human Subjects Committee.

6.3.3 Procedure

The questionnaire was administered online in a similar fashion to the study presented in §5.3.3. Participants were presented with a vignette containing either an *Alternative Supporting* context or an *Alternative Neutral* context, and one sentence out of the three possible ones —namely, either a sentence with the Simple Present marker, a sentence with the Present Progressive marker, or a sentence with the *pretérito* marker. They were asked to judge the acceptability of the context-sentence pair on a Likert scale from 1 to 5 with points defined on the scale. Five practice stimuli were presented before the experimental task, with clear instructions that required the participant to perform the task in a single sitting, without distractions. Subjects were compensated with $10 per hour, for an approximate duration of 2 hours and a total of $20.

6.3.4 Predictions

There were three predictions for this study:

a. The Simple Present marker would still be the preferred form to express a *habitual* reading in all dialects and regardless of context type.

b. The acceptability of the Present Progressive marker would be modulated by the context presented before the sentence that contained the marker, such that *Alternative Supporting* contexts would increase the acceptability of the marker in comparison to *Alternative Neutral* contexts.

c. To the extent that differences between dialects might be observed, they would reflect different sub-stages in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path, showing that the use of the Present Progressive marker has become less context-dependent (i.e., has generalized to more contexts).

6.3.5 Results

After assessing whether participants correctly answered more than 85% of the comprehension questions, only 2 subjects were excluded from posterior analyses (one Rioplatense Spanish speaker, and one Central Peninsular Spanish speaker). I also checked the ratings in the two filler conditions, as a measure of sensitivity to the task. Simple Present-marked sentences that express an *event-in-the-past* meaning elicited low ratings across dialects (mean = 1.87, SE = 0.02), while *pretérito*-marked sentences that express this meaning were consistently rated high (mean = 4.76, SE = 0.01), showing that participants were paying attention to the intended task.

The experimental data was subjected to a linear mixed effect analysis, using *lme4* in R (Bates et al. 2015). For model selection, I followed recommendations for linguistic analysis, and performed Likelihood Ratio Tests comparing the model with the effect under discussion against a model without it (Winter 2013). Post hoc tests were run in R with *multcomp* (Hothorn et al. 2008) and p-values were corrected by Tukey. Model comparisons analyzed the effects of three independent variables —context, aspectual marker, and dialectal variety— on the participants' ratings. As random effects, the models had random intercepts for subject and item, and by-subject random slopes for the effects of aspectual marker, and context, which was the maximal random effect structure justified by the data. Visual in-

spection of residual plots did not reveal any obvious deviations from homoscedasticity or normality.

The model with a fixed effect of the interaction between context, marker and dialect performs significantly better at explaining the data than the model without the effect ($\chi^2(12) = 52.032, p < .001$). Post hoc tests corrected by Tukey show a main effect of context, favoring *Alternative Supporting* contexts over *Alternative Neutral* contexts ($\beta = 0.294, p < .001$), a main effect of marker, favoring the Simple Present marker over the Present Progressive marker ($\beta = 0.657, p < .001$), and confirming the preference of the Simple Present marker and the Present Progressive marker over the *pretérito* marker at significant levels ($p < .001$). There is also a significant main effect of dialect, due to the comparison between Rioplatense Spanish and Central Peninsular Spanish ($\beta = 0.153, p < .005$), and Rioplatense Spanish and Mexican Altiplano Spanish ($\beta = 0.202, p < .001$). No such effect is found in the comparison between Mexican Altiplano Spanish and Central Peninsular Spanish ($\beta = 0.05, p = .516$). No effects of gender or age of the participants are found in the data.

Given the significance of the interaction term between context, marker and dialectal variety, I subset the data by marker to assess the source of the significant differences, and performed linear mixed effect analysis for each marker, analyzing the fixed effects of dialect and context. For the Simple Present marker, we find no main effect of context ($\chi^2(1) = 0.563, p = .464$) or dialect ($\chi^2(2) = 2.632, p = .268$). The same pattern emerges in the case of the *pretérito* marker: no effect of context ($\chi^2(1) = 0.894, p = .344$) or dialect ($\chi^2(2) = 4.472, p = .107$) is found. In the case of the Present Progressive marker, by contrast, we do find significant main effects of context ($\chi^2(1) = 73.258, p < .001$) and dialect ($\chi^2(2) = 49.489, p < .001$), and a significant effect of the interaction of context and dialect ($\chi^2(2) = 63.45, p < .001$). Given this interaction effect, I subset the data by dialect and analyzed the effect of context in the Present Progressive marker in each of the dialects under consideration. A significant effect is found in the case of **Rioplatense Spanish** ($\chi^2(1) = 35.216, p < .001$), in favor of *Alternative Supporting* contexts over *Alternative Neutral* contexts ($\beta = 1.243, p < .001$). The same effect is found in the case of **Central Peninsular Spanish**, also favoring *Alternative Supporting* contexts over *Alternative Neu-*

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tral contexts ($\chi^2(1) = 70.795, p < .001; \beta = 1.258, p < .001$). No such effect is found in the case of **Mexican Altiplano Spanish** ($\chi^2(1) = 3.159, p = .0755$).

A summary of the results in terms of the participants' ratings means by context, aspectual marker, and dialect is given in Table 6.1. Standard errors are indicated in parentheses. Conditions where there are significant differences are in bold.

	C. Peninsular Spanish		Rioplatense Spanish		Mexican Spanish	
	Support.	Neutral	Support.	Neutral	Support.	Neutral
Present Progressive	**4.17(.02)**	**2.88(.03)**	**4.62(.02)**	**3.34(.04)**	4.35(.01)	4.31(.01)
Simple Present	4.64(.02)	4.64(.01)	4.54(.02)	4.60(.01)	4.64(.02)	4.62(.01)
Pretérito	2.35(.02)	2.35(.02)	2.72(.04)	2.60(.04)	2.49(.02)	2.48(.02)

Table 6.1: Participants' ratings means and standard errors by dialect, aspectual marker and context type in acceptability judgments task for the *habitual* reading.

Figures 6.1, 6.2, and 6.3 also present a summary by dialect in terms of means of the ratings, and show the significant differences between context conditions.
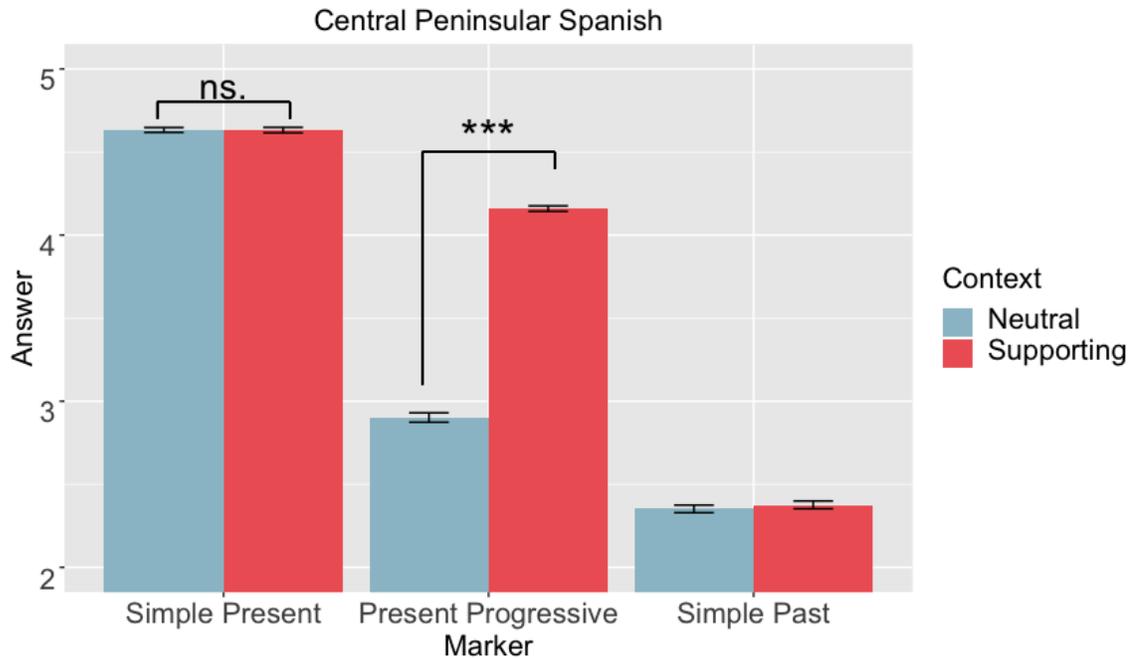
Figure 6.1: Participants' ratings means in acceptability judgments task for the *habitual* reading. Effect of context on aspectual marker in Central Peninsular Spanish.
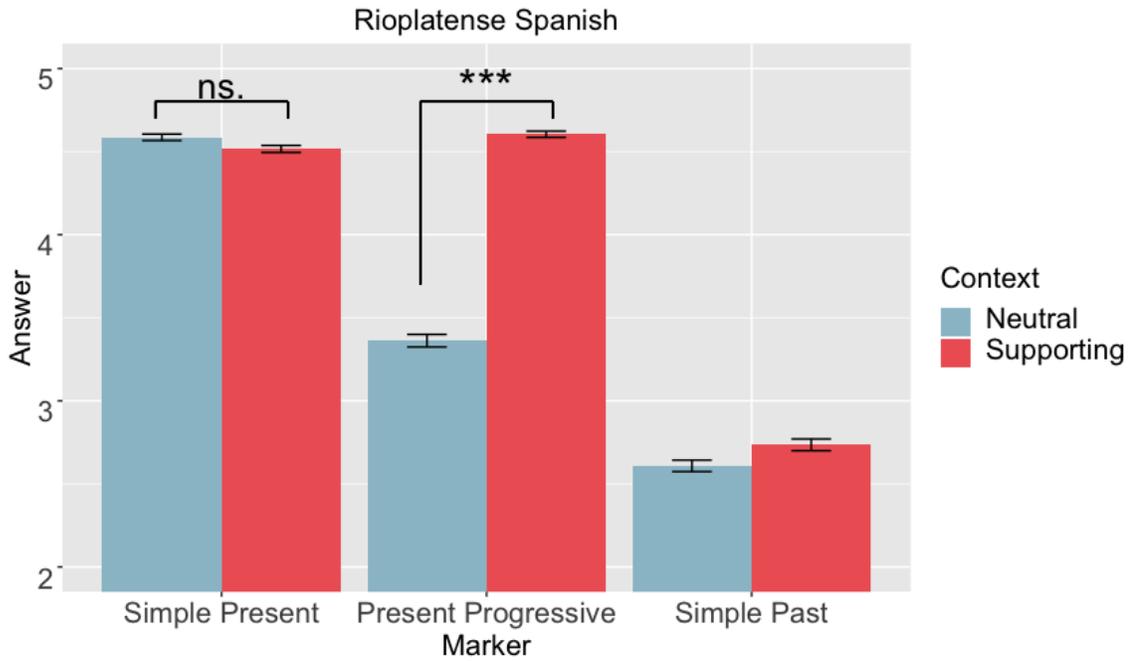
Figure 6.2: Participants' ratings means in acceptability judgments task for the *habitual* reading. Effect of context on aspectual marker in Rioplatense Spanish.
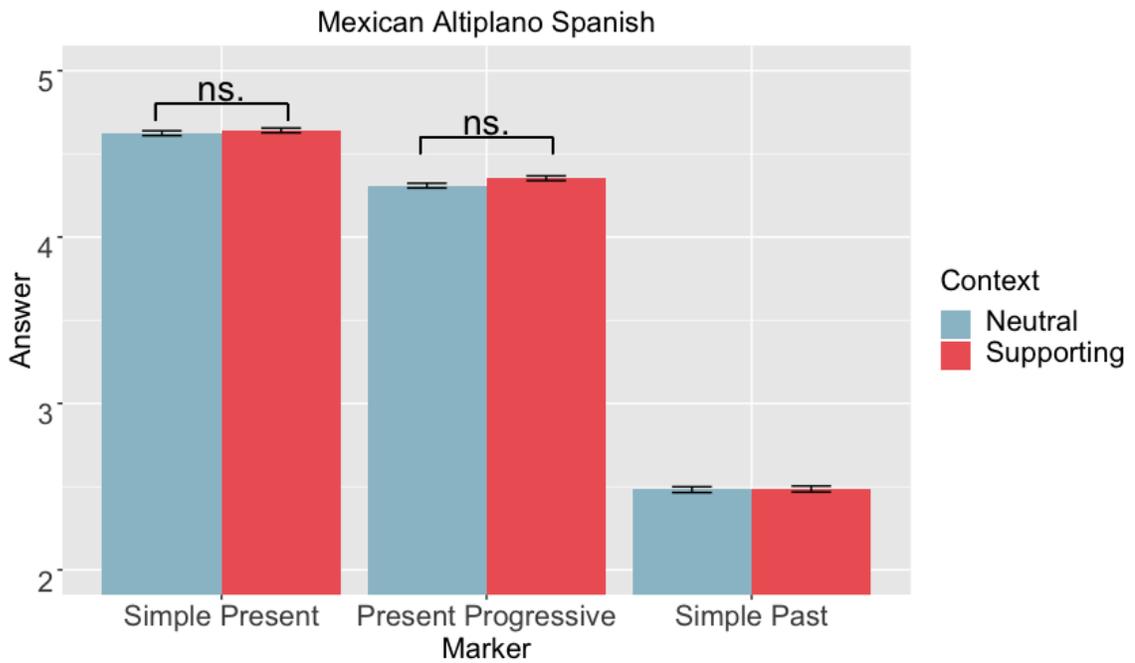
Figure 6.3: Participants' ratings means in acceptability judgments task for the *habitual* reading. No effect of context on aspectual marker in Mexican Altiplano Spanish.

6.3.6 Discussion

Results show that in the three Spanish dialectal varieties, the Simple Present marker is still the preferred form to convey a *habitual* reading at significant levels. However, the Present Progressive marker is already available to express this same reading, at least in some contexts, confirming that a *generalization* process is already underway in all three dialectal varieties.

As for dialectal variation, the main finding is that context has an effect on the acceptability of the Present Progressive marker (expressing a *habitual* reading) in both Rioplatense Spanish and Central Peninsular Spanish. The acceptability of this marker is enhanced when the context presents a salient alternative circumstance of evaluation at which the proposition at issue does not hold. Speakers of these varieties seem to be sensitive to whether or not *estar*'s presuppositional requirement is contextually satisfied. On the other hand, in Mexican Altiplano Spanish, though the Simple Present is still the preferred form for the expression of the *habitual* reading, we observe that the use of the Present Progressive marker for this reading is more acceptable than in the other dialectal varieties. We also find that the use of this marker is no longer dependent on contextual support, so that it can be used in a broader set of contexts. This pattern suggests that speakers may be satisfying the presuppositional content of *estar* on their own without the support of explicit context, a possibility that is afforded by the general higher frequency of use of *estar* in this dialect (Sánchez Alonso 2018). A plausible conjecture is that the increase in use and frequency of this marker to convey the *habitual* reading in Mexican Altiplano Spanish has in a way conventionalized a default alternative situation at which the proposition does not hold, such that speakers of this variety can make use of this alternative even when not explicitly supported by contextual information.

The variation across dialects also appears as a reflection of the diachrony of these markers in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path: Mexican Altiplano Spanish seems a step further in the grammaticalization path, given the loss of context-dependence of the Present Progressive marker, but all varieties are manifesting a particular sub-stage within the diachronic shift. Rioplatense and Central Peninsular Spanish seem

to be starting a process of *generalization* of the Present Progressive marker dependent on context support, while Mexican Altiplano Spanish seems to already present the two markers freely competing for the expression of the *habitual* reading.

In the next section, I test whether the contextual modulation observed for the use of the Present Progressive marker in the expression of a *habitual* reading is at play in the real-time processing of this marker. Specifically, I test whether the same constraint that we observe in the acceptability judgments task —that is, the presence or absence in the context of a salient alternative circumstance of evaluation at which the proposition at issue does not hold— can be shown to have an effect in a self-paced reading study.

6.4   Study 4: Self-Paced Reading study

This study investigates the online processing of the Present Progressive marker and the Simple Present marker when conveying a *habitual* reading through a self-paced reading paradigm. In this way, the study evaluates whether the Alternative Circumstances of Evaluation Hypothesis is observable in real-time sentence comprehension, drawing on previous evidence that shows that the integration of presuppositional content can be affected by the preceding contextual information (e.g., Tiemann et al. 2011, Sánchez Alonso et al. 2017). Specifically, I test the hypothesis that contextual satisfaction of the presuppositional content of *estar* has an effect on the real-time interpretation of the Present Progressive marker when expressing a *habitual* reading, decreasing its reading time in comparison to when the contextual information does not satisfy the presuppositional content of the auxiliary verb.

Three dialectal varieties were again examined —Central Peninsular Spanish, Mexican Altiplano Spanish, and Rioplatense Spanish—, to check whether the differences observed across dialects in the acceptability judgments tasks were replicated through this methodology, or if this more fine-grained technique allowed us to uncover more subtle differences. The expected variation across dialects would constitute the synchronic manifestation of different substages within the *categoricalization-to-generalization* process of the PROGRESSIVE-to-IMPERFECTIVE diachronic shift.

6.4.1 Materials and Design

The 30 sextuplets from the previous acceptability judgments task were used, for a total of 180 experimental items in a 2-by-3 design. The independent variables were Context and Aspectual Marker, as in the previous study. Items within each sextuple are identical aside from the two main differences: the Context Type and the Aspectual Marker. Each experimental item consists of a vignette with two parts: a context —which presents a situation that involves at least a speaker and an addressee— and a sentence, which is presented as uttered by the speaker in that context. All vignettes focus on a situation that repeatedly instantiates at regular intervals over some larger interval of time, so that the sentence uttered by the speaker is always a declarative affirmative sentence that expresses a *habitual* reading.

The contexts in the study are either Alternative Supporting or Alternative Neutral; that is, they either saliently provide an alternative circumstance of evaluation at which the proposition at issue does not hold (Alternative Supporting) or they remain neutral in this respect (Alternative Neutral). Providing an alternative circumstance of evaluation at which the proposition does not hold is what contextually satisfies the presuppositional requirement of *estar*, the auxiliary verb in the Present Progressive periphrasis. The test sentence after the context displays a predicate marked with either the Present Progressive marker, the Simple Present marker, or the *pretérito* marker, which was used again as a baseline condition given its incompatibility with a *habitual* reading. All the test sentences in the study were uniformly distributed for grammatical person, and they all had singular number. The study also included 90 fillers from an unrelated task, which resulted in a final script of 270 items. Just as in the previous experiments, all items were adapted and normed for each dialectal variety under scrutiny. For examples of each condition, see section 6.3.1.

6.4.2 Participants

Participants from three different dialects of Spanish were tested: Central Peninsular Spanish, Rioplatense Spanish, and Mexican Altiplano Spanish (n =120). Forty participants from Madrid, Spain constitute the Central Peninsular Spanish sample (19 female, 21 male, age

range 20-30 years old, M_{age} = 25.2 years old), and were tested during the months of October and November of 2018, during a visit to the Universidad Nacional de Educación a Distancia (UNED). Particular attention was paid to ensure that these participants were not bilingual speakers of any other official language in Spain. Forty participants from Buenos Aires, Argentina compose the Rioplatense Spanish sample (20 female, 20 male, age range 22-36 years old, M_{age} = 31.5 years old). They were tested during a visit to the Universidad de Buenos Aires (UBA) on the months of June and July of 2018. Lastly, forty participants were from Mexico City and its surroundings states (Mexico, Morelos, Tlaxcala, Hidalgo, and Puebla), constituting the Mexican Altiplano Spanish sample (19 female, 21 male, age range 19-35 years old, M_{age} = 26 years old). They were tested on a visit to El Colegio de México during the months of August and September of 2018. All participants had completed at least 12 years of formal education, by self-report had no history of neurological disease or brain injury, and had normal to corrected-to-normal vision. They all provided written informed consent in accordance with the guidelines set by the Yale University Human Subjects Committee, and were compensated with \$20 for their participation.

6.4.3 Procedure

Participants in the study saw unique self-paced reading scripts with the 270 items randomly ordered. Each participant thus saw a different ordered script. Scripts were divided in four parts, and allowed for 5 to 10 minute breaks between parts. The whole experiment lasted approximately 90 minutes, including breaks. The remaining details of the procedure were the same as in the self-paced reading study that explores the expression of the *event-in-progress* reading, which is presented in §5.4.3.

6.4.4 Predictions

The predictions for this study were the following:

1. The Present Progressive marker would produce longer reading times (RTs) than the Simple Present marker, given that the former but not the latter requires the integra-

tion and processing of presuppositional content (i.e., the calculus of an alternative circumstance of evaluation at which the proposition at issue does not hold).

2. Given that the Simple Present marker is the preferred form to express a *habitual* reading, no significant differences in RTs would be observed between the two contextual conditions for this marker.

3. In the case of the Present Progressive marker, sentences preceded by an Alternative Supporting context would obtain shorter RTs than sentences preceded by Alternative Neutral contexts, given that only Alternative Supporting contexts explicitly provide access to an alternative circumstance of evaluation at which the proposition does not hold, satisfying the presuppositional requirement of *estar*, and thus facilitating the processing of the Present Progressive marker.

6.4.5 Data Analysis

I performed a comparison analysis of reading times across the six experimental conditions for five specific regions of interest: the critical word (viz., the grammatical marker) and the surrounding words (one word before and three words after the aspectual marker). Word-length differences between grammatical markers were accounted by residualizing reading times; that is, a mean reading time was calculated for each region of interest, and then the reading times were centered by subtracting this mean for all values for the corresponding region (e.g. Ferreira & Clifton 1986). Since the Present Progressive marker includes two words —while the Simple Present marker and the *pretérito* marker are expressed by just one—, reading times were also residualized by number of words. All statistical analyses were performed on this last set of word-length and word-number residualized reading times.

6.4.6 Results

The responses to the Yes/No comprehension questions were tabulated, and a cutoff was set at 85% of accuracy. Under this restriction, only one subject was excluded from the Mexican Altiplano Spanish sample. All Central Peninsular Spanish and Rioplatense Spanish participants answered correctly more than 85% of the comprehension questions, so no participants were excluded from those samples. Taking out the excluded subject, the correct answers

mean for Central Peninsular Spanish (n = 40) was 94.5%, for Mexican Altiplano Spanish (n = 39) was 95.3%, and for Rioplatense Spanish (n = 40) was 95.8%.

Word-by-word residualized reading times were analyzed with linear mixed effect models in R (R Core Team 2018) using the *lme4* package (Bates et al. 2015). Each dialectal variety was analyzed separately. Regular recommendations for linguistic analysis were followed for model selection and to obtain p-values (Winter 2013), by performing Likelihood Ratio Tests of the full model with the effect(s) in question against a model without them. Models included context type, grammatical marker, and the interaction between them as fixed effects, while as for random effects, they included random intercepts for items and participants and by-participant random slopes for context type and for grammatical marker. Post hoc tests were run using the *multcomp* package (Hothorn et al. 2008), and p-values were corrected by Tukey. No deviations from homoscedasticity or normality were observed through visual inspection of the results.

In **Central Peninsular Spanish**, a significant main effect of grammatical marker is found one word after the grammatical marker ($\chi^2(2) = 15.812, p < .001$). The model also shows a significant interaction between context type and grammatical marker ($\chi^2(5) = 12.353, p < .05$). Post hoc tests show that the main effect of grammatical marker includes significant differences across the three grammatical markers: we find longer reading times for the *pretérito* marker over both the Simple Present marker ($\beta = 33.282, p < .001$) and over the Present Progressive marker ($\beta = 20.338, p < .05$), as well as longer reading times for the Present Progressive marker over the Simple Present marker ($\beta = 12.943, p < .05$). The interaction between grammatical marker and context type was broken down by conducting separate analyses to assess the effect of context type on each of the markers. The interaction effect was found to be due to sentences that display the Present Progressive marker: they were read significantly slower when preceded by an Alternative Neutral context than when preceded by an Alternative Supporting context ($\chi^2(1) = 4.311, \beta = 19.679, p < .05$). No context effect is found in the data for the other markers (Simple Present: $\chi^2(1) = 0.3719, p = .5419$; *pretérito*: $\chi^2(1) = 0.0273, p = .8688$), and no other significant interactions are found at any of the other sentence segments under scrutiny (PreVerb: $\chi^2(5) = 2.429, p = .787$; Verb: $\chi^2(5) = 3.118, p = .682$; Verb + 2: $\chi^2(5) = 0.669, p = .985$; Verb + 3: $\chi^2(5) =$

$0.78, p = .978$). Figure 6.4 shows the residualized reading times for each of the segments and the significant interaction that was found for the Central Peninsular Spanish data.
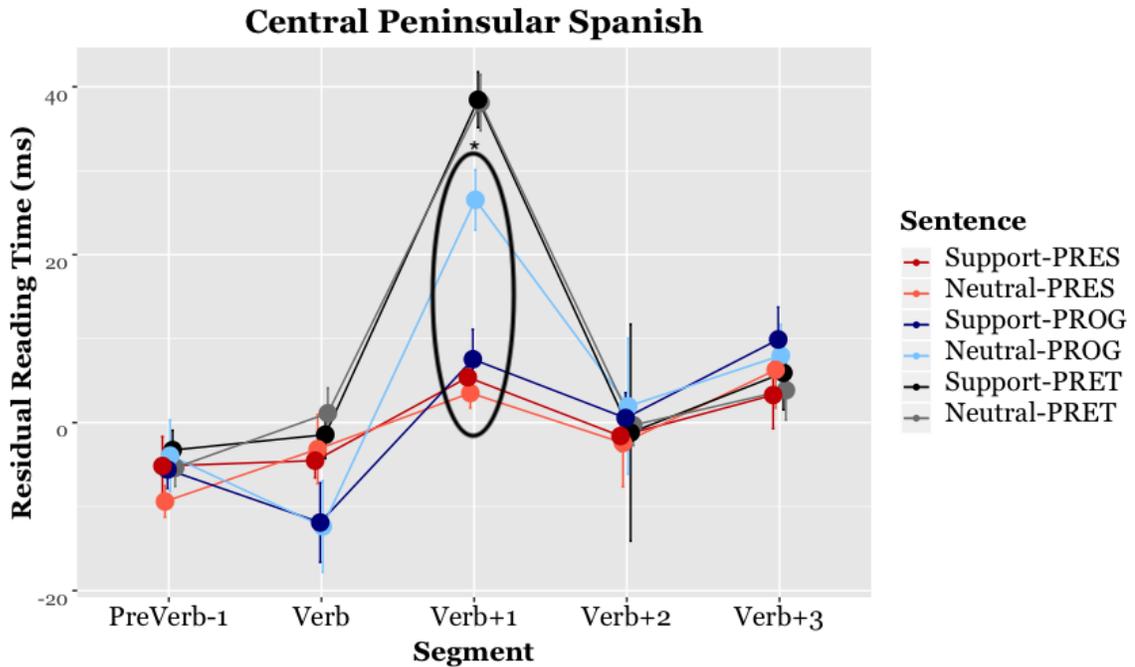
Figure 6.4: Word-number and letter-length corrected mean reading times for each context-grammatical marker pair at each relevant segment for the *habitual* reading (Central Peninsular Spanish).

In the case of **Rioplatense Spanish**, both a significant main effect of grammatical marker ($\chi^2(2) = 25.06, p < .001$) and a significant main effect of context type ($\chi^2(1) = 4.943, p < .05$) are revealed one word after the grammatical marker. A significant interaction effect between context type and grammatical marker is also found in the data ($\chi^2(5) = 37.337, p < .001$). Post hoc tests corrected by Tukey show that the main effect of grammatical marker includes significant differences across the three grammatical markers: we find longer reading times for the *pretérito* marker over both the Simple Present marker ($\beta = 48.047, p < .001$) and over the Present Progressive marker ($\beta = 33.097, p < .001$), as well as longer reading times for the Present Progressive marker over the Simple Present marker ($\beta = 14.950, p < .005$). The main effect of context type is explained by significantly longer reading times in Alternative Neutral contexts than in Alternative Supporting contexts ($\beta = 9.479, p < .05$). Given the significant interaction between context type and grammatical marker, separate analyses were conducted for each grammatical

marker to evaluate the effect of context on them. This analysis showed that sentences that present the Present Progressive marker were read significantly slower when preceded by Alternative Neutral contexts than when preceded by Alternative Supporting contexts $(\chi^2(1) = 9.808, \beta = 33.72, p < .001)$. This effect is not found neither for the Simple Present marker $(\chi^2(1) = 0.074, p = .786)$ nor for the *pretérito* marker $(\chi^2(1) = 0.484, p = .487)$. This interaction effect between grammatical marker and context persists two words after the grammatical marker $(\chi^2(5) = 11.26, p < .05)$. When subsetting the data by grammatical marker to analyze the effect of context in each of the markers, only the Present Progressive marker shows a significant effect of context: we find significantly slower RTs when preceded by an Alternative Neutral context than when preceded by an Alternative Supporting context $(\chi^2(1) = 5.338, \beta = 9.369, p < .05)$. No such effect is found either for the Simple Present marker $(\chi^2(1) = 1.138, p = .286)$ or for the *pretérito* marker $(\chi^2(1) = 0.480, p = .489)$. No other significant interactions are found at any of the other sentence segments under consideration (PreVerb: $\chi^2(5) = 2.71, p = .745$; Verb: $\chi^2(5) = 5.065, p = .167$; Verb + 3: $\chi^2(5) = 1.129, p = .952$). Figure 6.5 shows the residualized reading times for each of the segments and the significant interaction that was found one word after the grammatical marker in the Rioplatense Spanish data.

The **Mexican Altiplano Spanish** data shows a different pattern. No significant interaction effect of the grammatical marker and the context type is found one word after the verb $(\chi^2(5) = 1.303, p = .729)$. At that segment, we only find a significant main effect of grammatical marker $(\chi^2(2) = 41.972, p < .001)$, which is shown —in post hoc tests corrected by Tukey— to arise from the expected longer reading times for the *pretérito* marker over both the Simple Present marker $(\beta = 37.904, p < .001)$ and the Present Progressive marker $(\beta = 38.917, p < .05)$. Different from the other dialectal varieties, we find a marginally significant main effect of grammatical marker at the critical word position $(\chi^2(2) = 5.704, p = .0577)$. In this case, post hoc tests with Tukey correction show that the marginal effect is crucially explained by longer reading times for the Simple Present over the Present Progressive marker $(\beta = 21.679, p = .066)$. No other significant interactions are found at any of the other sentence segments under scrutiny (PreVerb: $\chi^2(5) = 2.389, p = .793$; Verb: $\chi^2(5) = 5.746, p = .332$; Verb + 2: $\chi^2(5) = 5.537, p = .354$;
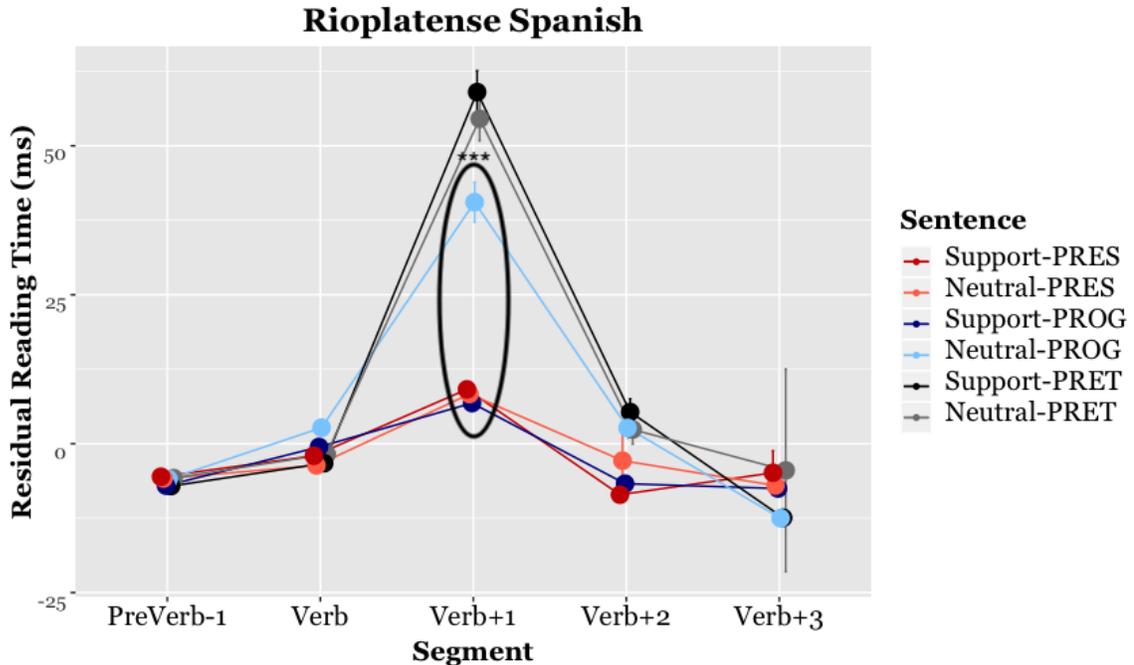
Figure 6.5: Word-number and letter-length corrected mean reading times for each context-grammatical marker pair at each relevant segment for the *habitual* reading (Rioplatense Spanish).

Verb + 3: $\chi^2(5) = 0.095, p = .999$). Figure 6.6 shows the residualized reading times for each of the segments and the marginally significant effect that is found in the Mexican Altiplano Spanish data.

6.4.7 Discussion

Results from the self-paced reading task mostly align with the predictions: (a), reading times for the Present Progressive marker condition are slower when preceded by Alternative Neutral contexts than when preceded by Alternative Supporting contexts in Rioplatense Spanish and in Central Peninsular Spanish, showing that when the contextual information satisfies the presuppositional demands of *estar*, the comprehension of this marker is facilitated; (b), no such contextual modulation is observed in any dialect for the Simple Present marker condition; and (c), the observed variation across dialects is in accordance with the PROGRESSIVE-TO-IMPERFECTIVE grammaticalization path —namely, in Mexican Altiplano Spanish, the reading times for the Present Progressive marker condition are faster than the reading times for the Simple Present marker condition independent of the type of preceding
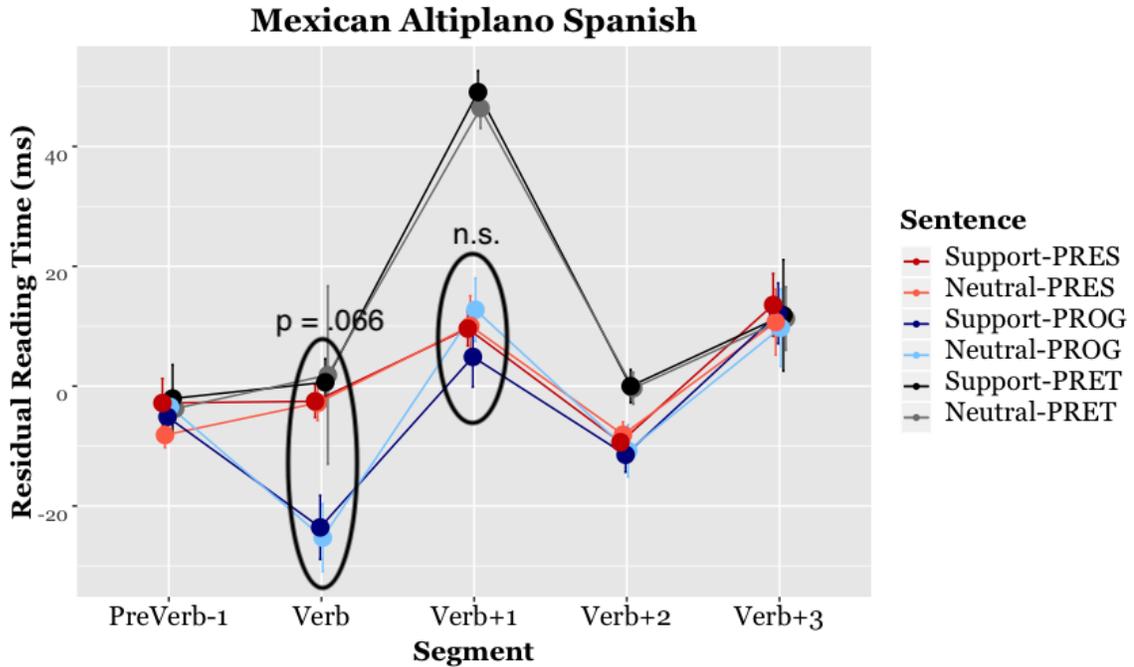
Figure 6.6: Word-number and letter-length corrected mean reading times for each context-grammatical marker pair at each relevant segment for the *habitual* reading (Mexican Altiplano Spanish).

context. This might indicate that in this dialect the use of the Present Progressive marker when expressing a *habitual* reading might be by now independent of context support, and —as the marginally significant preference of the Present Progressive marker over the Simple Present marker indicates— might be even favored over the use of the Simple Present marker.

In Rioplatense Spanish and Central Peninsular Spanish, we observe that the use of the Present Progressive marker to convey a *habitual* reading exerts greater cost in comparison to the Simple Present marker. This cost is reduced in these dialectal varieties when the contextual information saliently presents an alternative circumstance of evaluation at which the proposition at issue does not hold, satisfying the presuppositional requirements of the auxiliary verb in the Present Progressive periphrasis. The processing of the Present Progressive marker is facilitated in these cases, and elicits reading times similar to the ones produced by the Simple Present marker.

In Mexican Altiplano Spanish, on the other hand, contextual satisfaction of the presuppositional requirement of *estar* produces no difference in the reading times of the Present

Progressive marker. We do not observe an extra cost in the processing of the Present Progressive marker in comparison to the Simple Present marker. As a matter of fact, what we observe is that the Present Progressive marker seems to be the preferred form to convey the *habitual* reading in this dialect, regardless of contextual information, and showing an effect that was not previously observed in the acceptability judgments task. This could be because speakers are still not aware of the strength of the ongoing change and cannot report on it when presented with a task that allows them to take time to think about their answer, such as an acceptability judgments task. By contrast, the more fine-grained resolution of a self-paced reading study might have uncovered that Mexican Altiplano Spanish speakers are even further ahead in the diachronic path of PROGRESSIVE-to-IMPERFECTIVE, moving faster towards a *generalization* stage, reflecting a new *context-dependent* grammar.

6.5   Conclusions

The set of studies in this chapter has shown that a **generalization** process of the Present Progressive marker is already underway in present-day Spanish. This periphrastic marker is able to convey a *habitual* reading in all the dialectal varieties that we have studied. However, while in Mexican Altiplano Spanish there does not seem to be any constraint for its use, in Rioplatense Spanish and in Central Peninsular Spanish, we have confirmed the relevance of the Alternative Circumstances of Evaluation hypothesis. When the context presents a salient alternative circumstance of evaluation at which the proposition does not hold, we observe a boost in the acceptability of the Present Progressive marker, and a facilitation effect for its reading times on the self-paced reading study. Conversely, when the context does not present this information, we observe that the Present Progressive marker is dispreferred, and that it elicits longer reading times than its Simple Present counterpart.

This variation, together with the diachronic relation between the markers in the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path, appears to be driven by the contrastive expressivity strength of the combined lexico-semantic properties associated with the Present Progressive marker (i.e., *estar* + V-ndo). The generalization process is already underway in all three varieties, but the observed variation reflects the pathways proposed

by diachrony: Mexican Altiplano Spanish seems again a step further along the grammaticalization path, as it was in the case of the *event-in-progress* reading.

I conclude this section with a brief discussion regarding factors involved in the differential progress along the grammaticalization path observed across the dialectal varieties under study. In other words, why would a particular variety of Spanish be further along the diachronic shift? What has increased the speed of change in the Mexican Altiplano Spanish dialect over the other varieties? One likely possibility is the influence of American English —a language closer to *categorical* domains of use for the Simple Present and the Present Progressive markers— given its geographical proximity to Mexico. However, Torres Cacoullos (2000: 15-17) argues that if English would be propelling the acceleration of the change in Mexican Altiplano Spanish, futurate uses of the Present Progressive marker should be observed (as in English *I'm leaving tomorrow*). These futurate uses of the Present Progressive marker are not found in her corpus data for Mexican Spanish nor in her case study of English-Spanish bilinguals, so she concludes that the mechanisms of change in this variety are the same than in the other monolingual varieties.

Another plausible story for the differences across Spanish varieties is socio-historical. It relies on how the Spanish conquest proceeded in the Americas, and how different linguistic norms or standards were constituted across the continent and in Spain itself. The different dialectal varieties of Spanish emerged as the result of contact situations between speakers from different regions of the Iberian Peninsula, which came together only as a consequence of the process of conquest and colonization of the American territories (e.g., Fontanella de Weinberg 1992, Rosenblat 2002). Standardization of these newly established varieties occurred at different rates across different territories, especially since urban centers standardize their varieties faster. Mexico City is an exceptional case in this regard given its fast urbanization and the independent cultural development that it acquired only in a few years: conquered by 1521, eight years later it already had a cathedral, and by 1553 it had its own university (Lope Blanch 1996, Menéndez Pidal 1962).

By contrast, the Río de la Plata region was a marginalized zone with respect to its development until the 18th century. This territory lacked the mineral richness of Mexico or Peru, and was therefore not exploited commercially by Spain until other commercial

agricultural enterprises were put in motion. This lack of economic importance and social isolation, together with its geographic distance, made its demographic growth very slow until the second half of the 18th century, when Buenos Aires finally became a relevant commercial center, and the Viceroyalty of the Río de la Plata was founded in 1776. This historical isolation from the centers of power, culture and education is reflected in a variety of Spanish that has traditionally been characterized as archaic, a variety with late standardization that retained many features associated with the so-called 'pure standard' of the Castilian metropolis (Schreier 2009). As for the Central Peninsular variety, which included monolingual speakers from Madrid and the greater Madrid region, I hypothesize that the existence of a more literate culture, together with the norms imposed by the Real Academia Española, founded in 1713, prevented a faster development of the diachronic shift.

This is what the data seems to suggest: the Rioplatense variety and the Central Peninsular variety being more closely related with respect to their advancement in the grammaticalization path, while the Mexican Altiplano Spanish variety has developed more quickly with respect to the encroachment of the Present Progressive marker into the domain of the Simple Present.

Chapter 7

General conclusions

7.1 Summary

This dissertation asked how a better understanding of semantic change phenomena is possible. To address this question, I proposed that we need clear formal characterizations of the semantic content of the expressions that participate in the change that we are studying, and an account of the relationship that exists between those meanings. After a brief introduction into the synchrony and diachrony of the Spanish Imperfective domain (**Chapter 2**), a proposal for these requirements with respect to the PROGRESSIVE-to-IMPERFECTIVE grammaticalization path was provided in **Chapter 3**. I argued that we also need to describe the necessary conditions for the **recruitment** of a given marker, and the factors of usage and grammar involved in its **categoricalization** and **generalization**. These last two questions have been addressed at large through the corpus study and the experimental tasks in **Chapters 4, 5 and 6**, showing that a detailed account of the PROGRESSIVE-to-IMPERFECTIVE shift can be provided by carefully looking at synchronic variation across different dialects of the same language. A main upshot of this dissertation is thus **a clear connection between the domains of synchronic variation and semantic change** through the close examination of a specific aspectual domain.

Furthermore, my intention was to uncover the nature of the representations and the communicative and cognitive processes that are involved in the PROGRESSIVE-to-IMPERFECTIVE shift, and therefore constrain the processes of semantic variation and change within this semantic domain. The work developed in here expands our knowledge of this relationship by presenting a clear proposal of the contextual features that, on the one hand, constrain the observed synchronic distributions of the Simple Present marker and the Present Progressive marker in the expression of the *event-in-progress* and the *habitual* readings, and, on

the other hand, trigger and support the advancement through the different stages of the grammaticalization path that relates these markers.

The overview of the synchronic distribution of the Simple Present marker and the Present Progressive marker in **Chapter 2** presented the problem: there is a many-to-many form-meaning mapping in the Spanish Imperfective domain. Some previous accounts describe this system by claiming that the Simple Present marker and the Present Progressive marker are in *free variation* for the expression of the *event-in-progress* reading, while they indicate that the Simple Present is the only device to convey a *habitual* reading. Other analyses present the intuition that the distribution between these two markers is contextually-determined, though the characterizations of the contextual constraints at play are left largely unspecified. Moreover, most of these accounts do not take into account neither the diachronic relationship that connects these two markers nor the synchronic variation in their use that it is observed across different dialectal varieties of Spanish.

Chapter 3 introduced the ingredients for solving this distributional puzzle: §3.2 presented a unified account of the PROGRESSIVE and the IMPERFECTIVE that clearly specifies the subset relation that is observed between these two meanings. That relationship was further clarified in §3.3 by proposing a shared conceptual structure for these meanings, thus grounding the process of synchronic variation and semantic change in which these meanings participate. The last sections of the chapter addressed the diachronic relationship between the markers —that is, how we can explain the mechanisms behind the **recruitment** of a progressive marker, its **categoricalization** for the expression of the *event-in-progress* reading, and its further **generalization** into the more general Imperfective domain. I proposed that the processes of **recruitment** and **categoricalization** are driven by the pursuit of a general communicative goal, which I called *perspective alignment*. This goal can be achieved linguistically, by use of the Present Progressive marker, or by relying on situational contextual information and using the Simple Present marker. The information that needs to be available in those contexts is operationalized in the Shared Perceptual Access Hypothesis (§3.5): speakers and addressees need to share perceptual access to the event described by the predicate in order to achieve *perspective alignment* by non-linguistic means. The **generalization** process of the Present Progressive marker to *habitual* readings

was explained through the Alternative Circumstances of Evaluation Hypothesis (§3.6). Under this account, the use of the Present Progressive marker requires the satisfaction of the presuppositional component of *estar*, the auxiliary verb in the progressive periphrasis. This presupposition demands the existence of an alternative circumstance of evaluation —which is identical to the current circumstance of evaluation in all but one contextually relevant parameter— at which the proposition at issue does not hold. In the case of the *event-in-progress* readings, this constraint is met by default, since the contrast between 'now' and 'not-now' is very salient in discourse. However, in the case of *habitual* readings, the proposal is that support from the context is needed for this marker to be used felicitously. Under this hypothesis, the availability of a salient alternative circumstance of evaluation in the context would increase the acceptability of the marker, producing an increase in its frequency of use over time. Later on, this increase in frequency would make the marker less context-dependent, triggering its **generalization**.

A corpus study that diachronically puts to test these hypotheses was presented in **Chapter 4**. I investigated the distribution of the Simple Present marker and the Present Progressive marker and the role of the Shared Perceptual Access Hypothesis and the Alternative Circumstances of Evaluation Hypothesis across three different time periods in Spanish: Old Spanish (12-15th century), Golden Age Spanish (17th century), and Contemporary Spanish (21st century). In that chapter, I showed that the Present Progressive marker arose in the language out of a locative construction and slowly developed into a marker of the *event-in-progress* reading, dramatically increasing its frequency of use by the Golden Age period. While in Old Spanish the use of this marker required that speaker and hearer shared perceptual access to the event described by the predicate, by the time of Golden Age Spanish, this contextual requirement had disappeared, indicating the conventionalization of this marker for the expression of the *event-in-progress* reading. The Simple Present marker, on the other hand, always needed that speaker and addressee shared perceptual access to the event described by the predicate in order to disambiguate its meaning, and convey the *event-in-progress* reading. This requirement showed up as relevant across the three time periods, showing a significant increase in Contemporary Spanish. As for the expression of the *habitual* reading, textual evidence did not provide strong support for the Alternative

Circumstances of Evaluation Hypothesis, since the vast majority of cases in the corpus were expressed through the Simple Present marker. Consequently, there were too few tokens of the Present Progressive marker to test any hypothesis statistically, thus requiring that I addressed these hypotheses by using a different set of methodologies.

A set of experimental studies able to manipulate the contextual information that affects the interpretation of these markers was presented in the following two chapters. In **Chapter 5**, I studied the expression of the *event-in-progress* reading in different dialectal varieties of Spanish: Central Peninsular Spanish, Rioplatense Spanish, and Mexican Altiplano Spanish. The rationale under this decision is that just as different languages can be at different stages in the grammaticalization path, different dialects of a given language can show more nuanced sub-stages within the shift. Through a large-scale acceptability judgments task, I confirmed that the Shared Perceptual Access Hypothesis is at play in modulating the acceptability of the Simple Present marker in the Rioplatense and Central Peninsular varieties in present-day Spanish. In these dialects, the Simple Present marker can only be used to express the *event-in-progress* reading when shared perceptual access between speaker and hearer is guaranteed by contextual information. When this requirement is not met, speakers need to use the Present Progressive marker. In Mexican Altiplano Spanish, this contextual constraint is no longer at play, and the acceptability ratings of the Simple Present marker are low regardless of contextual support. Mexican Altiplano Spanish participants require the use of the Present Progressive marker for the *event-in-progress* reading across all contexts. These results were further confirmed through a self-paced reading study in which the real-time interpretation of these markers was analyzed. I found that in Rioplatense Spanish and Central Peninsular Spanish, the Simple Present marker elicits longer reading times than the Present Progressive marker when an *event-in-progress* reading is conveyed, but that this extra processing cost disappears when the context presents shared perceptual access between speaker and hearer. As with the acceptability judgments task, this contextual boost is not obtained in Mexican Altiplano Spanish. In this dialectal variety, the Simple Present marker elicits longer reading times than its Present Progressive counterpart regardless of the kind of contextual information previously presented.

In **Chapter 6**, I focused on the expression of the *habitual* reading by the Simple Present marker and the Present Progressive marker, studying the **generalization** process of the latter. To this end, I tested the Alternative Circumstances of Evaluation Hypothesis through acceptability judgments tasks and self-paced reading studies in the same three dialectal varieties of Spanish. I found that in Rioplatense Spanish and Central Peninsular Spanish, even if the Simple Present marker is the preferred form to express the *habitual* reading, the Present Progressive marker gets comparable acceptability ratings when the context presents an alternative circumstance of evaluation at which the proposition does not hold. When the context remains neutral with respect to this contextual requirement, these speakers disprefer the use of the Present Progressive marker, and only judge the Simple Present marker as an acceptable choice. These data provided support for the Alternative Circumstances of Evaluation Hypothesis. Mexican Altiplano Spanish participants showed once again a different pattern: regardless of contextual information, the Present Progressive marker and the Simple Present marker were equally acceptable to convey the *habitual* reading. Self-paced reading studies across the three dialectal varieties confirmed these contextual modulation effects and showed their role in real-time sentence comprehension. In Rioplatense Spanish and Central Peninsular Spanish, the Present Progressive marker elicited longer reading times than the Simple Present marker, but this extra processing cost was eliminated when the context that preceded the test sentence included an alternative circumstance of evaluation at which the proposition expressed by the test sentence did not hold. Mexican Altiplano Spanish data, on the other hand, did not show significant differences between the processing of the Simple Present marker and the Present Progressive one for the expression of the *habitual* reading —in fact, there was a marginally significant effect favoring the processing of the Present Progressive marker for this reading, regardless of contextual information.

7.2 Main contributions

Altogether, the patterns observed across dialectal varieties and different time periods are consistent with **a model of semantic variation and change that is shown to be subject to identifiable contextual factors**. The results presented in Chapter 4, Chapter 5,

and Chapter 6 provide evidence for the relevance of the **Shared Perceptual Access Hypothesis**, and the **Alternative Circumstances of Evaluation Hypothesis**. These results show the relevance of these contextual constraints both in **predicting the synchronic variation** within the Spanish Imperfective domain in different dialectal varieties, and in **triggering and constraining the advancement of the** PROGRESSIVE-TO-IMPERFECTIVE **shift through its different stages**. We have seen that the communicative system uses linguistic markers to optimize Common Ground and Theory of Mind pressures in the speaker's mind, and, in doing so, supports each dialectal variety's independent advancement from one stage to the following in their own larger path of change, manifesting predictable patterns of synchronic semantic variation in the process. Moreover, the approach to context structure presented in this dissertation is consistent with a view of **a relation between grammar and meaning that is mediated by generalized nonlinguistic communicative goals** that are at play during real-time language comprehension, and that link individualized usage patterns with the behavior of dialectal varieties and with generalized cross-linguistic patterns of semantic change.

In sum, the main contributions of this dissertation are a better understanding of the linguistic and contextual factors that trigger and support the recruitment of a given marker in an aspectual domain, its categoricalization with respect to an older marker within that system, and its generalization to all readings in that specific domain. The mechanisms that activate these processes can be seen at work through a careful examination of a language across different time periods, and by a comprehensive analysis of the synchronic variation across different dialectal varieties that this same language shows. I have provided evidence that a clear semantic-pragmatic analysis needs to be offered in order to analyze the diachronic development of the linguistic markers that instantiate the meanings that participate in a given process of semantic variation and change. Finally, I provided testable operationalizations of the communicative and cognitive principles that underpin meaning change, showing a process of semantic composition that incorporates both linguistic and non-linguistic information in the real-time interpretation of the markers that linguistically convey these meanings.

7.3   Future directions

There are at least a few ways in which the work in this dissertation can be extended. I have presented the contextual conditions that explain the distribution of two aspectual markers within the Spanish Imperfective domain. However, I have explored this issue only in the Present tense, through the Simple Present and the Present Progressive markers. What happens when we look at this aspectual distinction under other Tense operators? Do the same contextual constraints play a role in the interplay between two distinct variants?

If we look at the Spanish (Imperfective) Past system, we observe a more complex distributional pattern. Many of the aspectual properties of the periphrasis now depend on the tense and aspect of the auxiliary verb. Consider the sentences in (57) below:

(57)   a.   # Ana fum-ab-a   ayer   durante la   reunión.
            Ana smoke-PST.IPFV-3.SG yesterday during   the meeting
            'Ana was smoking yesterday during the meeting.'

       b.   Ana est-ab-a   fuma-ndo   ayer   durante la   reunión.
            Ana be-PST.IPFV-3.SG smoke-PROG yesterday during   the meeting
            'Ana was smoking yesterday during the meeting.'

       c.   Ana est-uv-o   fuma-ndo   ayer   durante la   reunión.
            Ana be-PST.PFV-3.SG smoke-PROG yesterday during   the meeting
            'Ana smoked yesterday during the meeting.'

To indicate that an event (namely, the smoking) was ongoing in the past during another event (namely, the meeting), speakers[1] seem to prefer the Imperfective Past Progressive in (57b) or even the Perfective Past Progressive in (57c) over the Imperfective Past in (57a). One possible way to improve the use of the Imperfective Past would be to warrant that the speaker knew that the addressee was present at the anchoring event (namely, the meeting). In this case, speakers report that the use of the Imperfective past would be more acceptable, in line with the Shared Perceptual Access Hypothesis.

Now, if we try to express a *habitual* reading for an event in the past, we do not seem to have as many options as with ongoing events. See the sentences in (58) below show:

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[1]The data reported in this section was judged on their acceptability by 6 native speakers of Rioplatense Spanish. Their judgments were consistent across all sentences.

(58)   a.   Ana fum-ab-a   durante su   adolesencia.
            Ana smoke-PST.IPFV-3.SG during   her teenage.years

            'Ana used to smoke during her teenage years.'

       b.   # Ana est-ab-a   fuma-ndo   durante su   adolescencia.
            Ana be-PST.IPFV-3.SG smoke-PROG during   her teenage.years

            'Ana used to be smoking during her teenage years.' (intended)

       c.   # Ana est-uv-o   fuma-ndo   durante su   adolescencia.
            Ana be-PST.PFV-3.SG smoke-PROG during   her teenage.years

            'Ana used to be smoking during her teenage years.' (intended)

Here, only the Imperfective Past in (58a) is acceptable, while both the periphrasis in
(58b) and the one in (58c) are considered unacceptable by native speakers. It is difficult
to assess whether the Alternative Circumstances of Evaluation Hypothesis can explain the
unavailability of the periphrastic constructions to express a *habitual* reading in the past,
since the past always presupposes another, posterior time. It might be that the periphrastic
constructions are deemed unacceptable because the simpler form —the Imperfective Past—
already fulfills the purpose of implicating that the event does not hold in the present any-
more. Further work on how the Imperfective domain is partitioned in the Past could help
us clarify the role of the hypotheses presented in this thesis and their explanatory power.

Looking at the Spanish Future system provides a parallel picture to the Past one. Con-
sider the sentences in (59) below:

(59)   a.   Ana va   a fum-ar   durante la   cena.
            Ana go.PRS.3.SG to smoke-INF during   the dinner

            'Ana is going to smoke during dinner.'

       b.   Ana va   a est-ar fuma-ndo   durante la   cena.
            Ana go.PRS.3.SG to be-INF smoke-PROG during   the dinner

            'Ana is going to be smoking during dinner.'

       c.   Ana va   a fum-ar   durante la   campaña.
            Ana go.PRS.3.SG to smoke-INF during   the campaign

            'Ana is going to smoke during the campaign.'

       d.   # Ana va   a est-ar fuma-ndo   durante la   campaña.
            Ana go.PRS.3.SG to be-INF smoke-PROG during   the campaign

            'Ana is going to be smoking during the campaign.'

If we try to express an ongoing event in the future, both the periphrastic Future form in (59a) and the Progressive Future periphrastic form in (59b) seem to be acceptable. But when we try to express a *habitual* in the future, only the periphrastic Future form in (59c) is available, and the Progressive Future periphrastic form in (59d) becomes unacceptable. These data might indicate that the Future —and the Past— might be more conservative contexts in the PROGRESSIVE-to-IMPERFECTIVE shift. Analyzing the historical record of these constructions, and taking into account the tense and aspect of the auxiliaries, could help elucidate the development of the Imperfective system more broadly.

A second line of work could encompass a more qualitative analysis of the role of the contextual factors that affected the development of the Present Progressive marker over time. While the quantitative analysis presented in the corpus study in Chapter 4 uncovered the main factors at play in the development of the aspectual opposition between the Simple Present marker and the Present Progressive marker in the Spanish Imperfective domain, more nuanced distinctions could be made about the specific contexts in which these markers were used across different time periods. For instance, what is the aspectual class of the lexical predicates that most vary between the two markers? Does this distribution change across time periods? Or, for example, what is the nature of the adverbials that appear together with the Present Progressive marker when it is conveying a *habitual* reading? Are they always quantificational adverbs (e.g., *siempre*, 'always') such that they are at least partially responsible for the habituality effect? A more in-depth look at the corpus data could help in answering these questions, so to have a more comprehensive understanding of the development of the Present Progressive marker and its encroachment over the domain of the Simple Present one.

Finally, future work could analyze the uses of the Present Progressive periphrasis in comparison to the other gerundive periphrasis of Spanish. For instance, consider just a few of these periphrases in the sentences in (60):

(60)   a. Ana est-á   fuma-ndo.
           Ana be-PRS.3.SG smoke-GER
           'Ana is smoking.'

b. Ana v-a   fuma-ndo   (tres cigarrillos).
   Ana go-PRS.3.SG smoke-GER three cigarettes

   lit.: 'Ana goes smoking three cigarettes.'

c. Ana vien-e   fuma-ndo.
   Ana come-PRS.3.SG smoke-GER

   lit.: 'Ana comes smoking.'

d. Ana and-a   fuma-ndo.
   Ana walk-PRS.3.SG smoke-GER

   lit.: 'Ana walks smoking.'

e. Ana sigu-e   fuma-ndo.
   Ana continue-PRS.3.SG smoke-GER

   lit.: 'Ana continues smoking.'

As we can see in the examples, besides the construction with *estar* 'to be' (60a), Spanish allows the gerund to combine with many other auxiliary verbs. (60b), with the verb *ir* 'go', is usually understood as measuring an uncompleted series of events. For instance, in this case, Ana has smoked three cigarettes out of some more —and crucially, there needs to be more smoking events in the near future for the sentence to be felicitous. The other periphrases (60c - 60e), on the other hand, all express some flavor of *habituality*, but it is unclear what the differences are between them.

It would be interesting to study the different rates of use of these periphrases across different time periods, and analyze their evolution in comparison to the development of the *estar* + gerund periphrasis examined in this dissertation. Moreover, from a synchronic point of view, these periphrases are showing that the meaning that we obtain from these constructions is compositional: part of it is derived from the auxiliary verb and part of it comes from the gerund. Analyzing the role of each of these auxiliaries in their combination with the gerund in Spanish —and how this compositional process gives rise to the set of different meanings that we observe— could provide us with a clearer picture of the properties of the Spanish Imperfective aspectual system, allowing us to give the Spanish gerund a proper formal semantic characterization.

Appendix A: Stimuli for *categoricalization* studies

First person

(1) **Rich experiential context**: Juan está en la cocina y María acaba de entrar a la casa, pero Juan no la oye llegar. Juan escucha el ruido de la televisión en el living y va hacia allá mientras la llama para ver si es ella quien llegó. María está sentada en el sillón del living, lo ve a Juan y enseguida le dice:

'Juan is in the kitchen and María gets home, but Juan does not hear her come in. Juan hears that the TV is on in the living room, and goes there to check if it is María who has arrived. María is sitting on the couch, sees Juan, and tells him:'

Poor experiential context: Juan está en la cocina y María acaba de entrar a la casa, pero Juan no la oye llegar. Juan escucha el ruido de la televisión en el living, y la llama para ver si es ella quien llegó. Después de escuchar su nombre un par de veces, ella le contesta:

'Juan is in the kitchen and María gets home, but Juan does not hear her come in. Juan hears that the TV is on in the living room, and calls María to check if it is her who has arrived. After hearing her name a couple of times, she answers:'

  a. Est-oy   mira-ndo   un documental   sobre reptiles en la   tele.
       be-PRS.1.SG watch-PROG a   documentary about lizards   on the TV
       'I am watching a documentary about lizards on the TV.'

  b. Mir-o   un documental   sobre reptiles en la   tele.
       watch-PRS.1.SG a   documentary about lizards   on the TV
       'I am watching a documentary about lizards on the TV.'

  c. Mir-é   un documental   sobre reptiles en la   tele.
       watch-PST.PFV.1.SG a   documentary about lizards   on the TV
       'I watched a documentary about lizards on the TV.'

(2) **Rich experiential context**: Ana llega a su casa de trabajar y va a buscar a su hijo a su habitación para ver cómo está. Golpea la puerta, la abre, y ve al hijo sentado en el escritorio. Antes de que ella pueda decir algo, su hijo le dice:

'Ana gets home from work and goes to her son's room to check on him. She knocks on the door, opens it, and sees her son sitting at his desk. Before she can say anything, her son tells her:'

Poor experiential context: Ana llega a su casa de trabajar y va a buscar a su hijo a su habitación para ver cómo está. Golpea la puerta, pero su hijo no contesta. Sin que ella llegue a abrir la puerta, su hijo le dice:

'Ana gets home from work and goes to her son's room to check on him. She knocks on the door, but her son does not answer. Before she gets to open the door, her son tells her:'

    a. Est-oy   hacie-ndo la tarea   de Matemática para mañana.
        be-PRS.1.SG do-PROG   the homework of Math   for   tomorrow.
        'I am doing Math homework for tomorrow.'

    b. Hag-o   la tarea   de Matemática para mañana.
        do-PRS.1.SG the homework of Math   for   tomorrow
        'I am doing Math homework for tomorrow.'

    c. Hic-e   la tarea   de Matemática para mañana.
        do-PST.PFV.1.SG the homework of Math   for   tomorrow
        'I did Math homework for tomorrow.'

(3) **Rich experiential context**: Jorge y Catalina acaban de terminar de cenar. Ella levanta la mesa y lleva los platos a la cocina. Jorge va al living y se pone a mirar la televisión. Pasa el tiempo y Catalina no aparece. Entonces él va a la cocina y le pide que vaya con él a mirar la tele. Ella le contesta:

'Jorge and Catalina have just finished eating dinner. She clears the table and takes the dishes to the kitchen. Jorge goes to the living room and starts watching TV. Time goes by, but Catalina doesn't come to the living room. So he goes into the kitchen and asks her to go to watch TV with him. She answers back:'

Poor experiential context: Jorge y Catalina acaban de terminar de cenar. Ella levanta la mesa y lleva los platos a la cocina. Jorge va al living y se pone a mirar

la televisión. Pasa el tiempo y Catalina no aparece. Entonces él la llama desde el sillón y le pide que vaya con él a mirar la tele. Ella le contesta:

'Jorge and Catalina have just finished eating dinner. She clears the table and takes the dishes to the kitchen. Jorge goes to the living room and starts watching TV. Time goes by, but Catalina doesn't come to the living room. So he calls her from the couch and asks her to go to watch TV with him. She answers back:'

   a. Est-oy   lava-ndo   los platos de   la   cena.
       be-PRS.1.SG wash-PROG the dishes from the dinner
       'I am washing the dinner dishes.'

   b. Lav-o   los platos de   la   cena.
       wash-PRS.1.SG the dishes from the dinner
       'I am washing the dinner dishes.'

   c. Lav-é   los platos de   la   cena.
       wash-PST.PFV..1.SG the dishes from the dinner
       'I washed the dinner dishes.'

(4)   **Rich experiential context**: Juan llega a una fiesta y está buscando a Pedro. De pronto, lo ve a Pedro a través de la ventana y lo llama para que vaya adentro. Pedro también lo ve a Juan, mientras está afuera con un cigarrillo, y le contesta:

'Juan gets to a party and he is looking for Pedro. Suddenly, Juan sees Pedro through a window and tells him to come inside. Pedro also sees Juan, while he is outside with a cigarette, and answers back to him:'

Poor experiential context: Juan llega a una fiesta y está buscando a Pedro. De pronto, Pedro lo ve a Juan través de la ventana pero Juan no lo llega a ver porque está de espaldas. Pedro sabe que Juan lo debe andar buscando, pero está afuera con un cigarrillo. Entonces le grita:

'Juan gets to a party and he is looking for Pedro. Suddenly, Pedro sees Juan through a window, but Juan does not see him because he is facing backwards. Pedro knows that Juan must be looking for him, but he is outside with a cigarette. So he yells at him: '

   a. Est-oy   fuma-ndo   un cigarrilo acá, Juan.
       be-PRS.1.SG smoke-PROG a   cigarette here, Juan

       'I am smoking a cigarette here, Juan.'

   b. Fum-o   un cigarrilo acá, Juan.
       smoke-PRS.1.SG a   cigarette here, Juan

       'I am smoking a cigarette here, Juan.'

   c. Fum-é   un cigarrilo acá, Juan.
       smoke-PST.PFV.1.SG a   cigarette here, Juan

       'I smoked a cigarette here, Juan.'

(5) **Rich experiential context**: Martín quedó en encontrarse con Julia en la puerta del cine. La película está por empezar, Martín llegó, pero Julia todavía no. Martín decide llamarla al celular. Justo cuando ella lo atiende, ellos se ven a lo lejos y ella le dice:

'Martin arranged to meet with Julia at the movie theater's door. The movie is about to begin, Martin has arrived, but Julia is not there yet. Martin decides to call her to her cellphone. Just as she picks up, they see each other, and she tells him:'

Poor experiential context: Martín quedó en encontrarse con Julia en la puerta del cine. La película está por empezar, Martín llegó, pero Julia todavía no. Martín decide llamarla al celular. Ella lo atiende y le dice:

'Martin arranged to meet with Julia at the movie theater's door. The movie is about to begin, Martin has arrived, but Julia is not there yet. Martin decides to call her to her cellphone. She picks up and tells him:'

   a. Est-oy   ye-ndo   para allá.
       be-PRS.1.SG go-PROG to   there

       'I am going there.'

   b. V-oy   para allá.
       go-PRS.1.SG to   there

       'I am going there.'

   c. Fui   para allá.
       go.PST.PFV.1.SG to   there

       'I went there.'

(6) **Rich experiential context**: Valentín y Mariana están en la oficina trabajando y necesitan fotocopiar unos formularios. Valentín va a la sala de la fotocopiadora, pero, como él tarda mucho, ella decide ir a buscarlo. Cuando lo encuentra, él le dice:

'Valentín and Mariana are working at the office and they need to make copies of some forms. Valentín goes to the copy room, but he takes so long that she decides to go look for him. When she finds him, he tells her:'

Poor experiential context: Valentín y Mariana están en la oficina trabajando y necesitan fotocopiar unos formularios. Valentín va a la sala de la fotocopiadora y Mariana espera, pero, como él tarda mucho, ella lo llama para saber por qué. Él le contesta:

'Valentín and Mariana are working at the office and they need to make copies of some forms. Valentín goes to the copy room, while Mariana waits, but he takes so long that she calls him to know why. He answers:'

a. Est-oy   prendie-ndo   la fotocopiadora a color
   be-PRS.1.SG turn.on-PROG the copier   to color
   'I am turning the color copier on.'

b. Prend-o   la fotocopiadora a color
   turn.on-PRS.1.SG the copier   to color
   'I am turning the color copier on.'

c. Prend-í   la fotocopiadora
   turn.on-PST.PFV.1.SG the copier   to color
   'I turned the color copier on.'

(7) **Rich experiential context**: Ana está en su casa, que es muy grande, y no encuentra a su marido Daniel por ningún lado. Daniel la escucha decir su nombre, pero está ocupado en el teléfono. Cuando ella entra en su estudio, lo ve, y él le dice:

'Ana is at her house, which is very big, and she cannot find her husband Daniel anywhere. Daniel hears her call his name, but he is busy on the phone. When she enters into his study, she sees him, and he tells her:'

Poor experiential context: Ana está en su casa, que es muy grande, y no encuentra a su marido Daniel por ningún lado. Daniel la escucha decir su nombre,

pero está ocupado en el teléfono. De todos modos, le contesta desde su estudio:

'Ana is at her house, which is very big, and she cannot find her husband Daniel anywhere. Daniel hears her call his name, but he is busy on the phone. However, he answers back to her from his study:'

a. Est-oy   llama-ndo al   director comercial de la   empresa.
   be-PRS.1.SG call-PROG to.the chief   business   of the company
   'I am calling the company's CBO.'

b. Llam-o   al   director comercial de la   empresa.
   call-PRS.1.SG to.the chief   business   of the company
   'I am calling the company's CBO.'

c. Llam-é   al   director comercial de la   empresa.
   call-PST.PFV.1.SG the chief   business   of the company
   'I called the company's CBO.'

(8) **Rich experiential context**: Leandro y Emilia están en su casa y tienen que ir a una fiesta de casamiento. Se acerca el tiempo de irse, Emilia ya está lista en el living, pero Leandro todavía está en el cuarto. Ella no quiere llegar tarde, así que va hasta el cuarto a apurarlo y él le dice:

'Leandro and Emilia are at home and they have to go to a wedding party. It is almost time to leave; Emilia is ready in the living room, but Leandro is still in the bedroom. She does not want to be late, so she goes to their room to make him hurry up, and he tells her:'

Poor experiential context: Leandro y Emilia están en su casa y tienen que ir a una fiesta de casamiento. Se acerca el tiempo de irse, Emilia ya está lista en el living, pero Leandro todavía está en el cuarto. Ella lo llama desde el living y él le contesta desde el cuarto:

'Leandro and Emilia are at home and they have to go to a wedding party. It is almost time to leave; Emilia is ready in the living room, but Leandro is still in the bedroom. She calls him from the living room, and he answers her back from the bedroom:'

   a. Me   est-oy   ponie-ndo   la corbata verde y   azul.
       1.SG.REFL be-PRS.1.SG put.on-PROG the tie   green and blue
       'I am putting on the green and blue tie.'

   b. Me   pongo   la corbata verde y   azul.
       1.SG.REFL put.on-PRS.1.SG the tie   green and blue
       'I am putting on the green and blue tie.'

   c. Me   pus-e   la corbata verde y   azul.
       1.SG.REFL put.on-PST.PFV.1.SG the tie   blue   and green
       'I put on the green and blue tie.'

(9) **Rich experiential context**: Mariano llega a una fiesta y quiere saber dónde está Julián. De pronto, lo ve a Julián a través de una puerta que da a otro cuarto y lo llama para que vaya donde está él. Julián lo ve a Mariano y le dice desde la pista de baile:

'Mariano arrives to a party and wants to know where to find Julian. Suddenly, he sees Julian through a door that goes into another room, and he calls him so that Julian goes to where he is. Julian sees Mariano, and from the dancefloor he tells him:'

Poor experiential context: Mariano llega a una fiesta y quiere saber dónde está Julián. Lo empieza a llamar para ver si lo encuentra. Julián le dice desde la pista de baile:

'Mariano arrives to a party and wants to know where to find Julian. He starts calling him to try to find him. Julian answers him back from the dancefloor:'

   a. Est-oy   baila-ndo   mi nueva canción favorita, Mariano.
       be-PRS.1.SG dance-PROG my new   song   favorite Mariano
       'I am dancing to my new favorite song, Mariano.'

   b. Bail-o   mi nueva canción favorita, Mariano.
       dance-PRS.1.SG my new   song   favorite Mariano
       'I am dancing to my new favorite song, Mariano.'

   c. Bail-é   mi nueva canción favorita, Mariano.
       dance-PST.PFV.1.SG my new   song   favorite Mariano
       'I danced to my new favorite song, Mariano.'

(10) **Rich experiential context**: Andrea y su hijo están en su casa y tienen que ir a un bautismo. Se acerca el tiempo de partir, Andrea ya está lista en el living, pero su hijo sigue en su cuarto. Ella no quiere llegar tarde, así que va hasta el cuarto para ver qué lo demora tanto y él le dice:

'Andrea and her son are at home and they have to go to a baptism ceremony. It is almost time to leave. Andrea is in the living room, ready to go, but her son is still in his bedroom. She does not want to be late, so she goes to his room to see what is taking him so long, and he tells her:'

Poor experiential context: Andrea y su hijo están en su casa y tienen que ir a un bautismo. Se acerca el tiempo de partir, Andrea ya está lista en el living, pero su hijo sigue en su cuarto. Ella no quiere llegar tarde, así que lo llama desde el living y él le dice:

'Andrea and her son are at home and they have to go to a baptism ceremony. It is almost time to leave. Andrea is in the living room, ready to go, but her son is still in his bedroom. She does not want to be late, so she calls him from the living room, and he tells her:'

a. Me   est-oy   peina-ndo   con el gel que me
1.SG.REFL be-PRS.1.SG comb-PROG with the gel that DAT.1.SG
compraste.
buy.PST.PFV.2.SG

'I am combing (my hair) with the gel you bought for me.'

b. Me   pein-o   con el gel que me   compraste.
1.SG.REFL comb-PRS.1.SG with the gel that DAT.1.SG buy.PST.PFV.2.SG

'I am combing (my hair) with the gel that you bought for me.'

c. Me   pein-é   con el gel que me   compraste.
1.SG.REFL comb-PST.PFV.1.SG with the gel that DAT.1.SG buy.PST.PFV.2.SG

'I combed (my hair) with the gel that you bought for me.'

Second person

(1) **Rich experiential context**: Andrés es ayudante de un chef en un restaurante. Es la primera vez que está preparando un tiramisú y tiene que humedecer con café las vainillas. Mientras está en ello, el chef pasa a su lado, prueba una y le dice:

'Andrés is a sous-chef at a restaurant. It is his first time preparing a tiramisu and he has to moisten the ladyfingers. While on it, the chef goes by his side, tastes one of the ladyfingers, and tells him:'

Poor experiential context: Andrés es ayudante de un chef en un restaurante. Es la primera vez que está preparando un tiramisú y tiene que humedecer las vainillas. Después de usar una taza entera de café, va a buscar una segunda. El chef está al lado de la máquina de café y le dice:

'Andrés is a sous-chef at a restaurant. It is his first time preparing a tiramisu and he has to moisten the ladyfingers. After using a whole cup of coffee, he goes to look for a second one. The chef is by the coffee machine and tells him:'

a. Est-ás   moja-ndo   demasiado esa   capa de vainillas.
   be-PRS.2.SG soak-PROG too much   that layer of ladyfingers
   'You are soaking that layer of ladyfingers too much.'

b. Moj-ás   demasiado esa   capa de vainillas.
   soak-PRS.2.SG too much   that layer of ladyfingers
   'You are soaking that layer of ladyfingers too much.'

c. Mojaste   demasiado esa   capa de vainillas.
   soak-PST.PFV.2.SG too much   that layer of ladyfingers
   'You soaked that layer of ladyfingers too much.'

(2) **Rich experiential context**: Mariano y Agustín van en auto al cine, pero tienen que apurarse porque la película está por empezar. Mariano va al volante, y cruza algunos semáforos en rojo. De pronto, los dos miran el velocímetro y Agustín le dice a Mariano:

'Mariano and Agustín are driving to the movies, but they need to hurry up because the film is about to begin. Mariano is driving, and he crosses some red lights. Suddenly, both of them look at the speedometer, and Agustin tells Mariano:'

Poor experiential context: Mariano y Agustín van en auto al cine, pero tienen que apurarse porque la película está por empezar. Mariano va al volante, y cruza algunos semáforos en rojo. Agustín se da cuenta de que van a llegar a tiempo y le dice:

'Mariano and Agustín are driving to the movies, but they need to hurry up because

the film is about to begin. Mariano is driving, and he crosses some red lights. Agustín realizes that they are going to make it on time and tells Mariano:'

a. Est-ás   maneja-ndo el   auto muy rápido.
   be-PRS.2.SG drive-PROG the car   too fast
   'You are driving the car too fast.'

b. Manej-ás   el   auto muy rápido.
   drive-PRS.2.SG the car   too fast
   'You are driving the car too fast.'

c. Maneja-ste   el   auto muy rápido.
   drive-PST.PFV.2.SG the car   too fast
   'You drove the car too fast.'

(3) **Rich experiential context**: Andrea está haciendo la cena, y Jorge va a la cocina y la quiere ayudar. Ella le dice que pele y corte las papas. Cuando Jorge empieza, Andrea ve el grosor de las papas, le muestra una en detalle y lo corrige:

'Andrea is cooking dinner, and Jorge comes into the kitchen to help her. She tells him to peel and cut the potatoes. When Jorge starts to do so, Andrea sees the thickness of the potatoes, she shows him one in detail, and tells him:'

Poor experiential context: Andrea está haciendo la cena, y Jorge va a la cocina y la quiere ayudar. Ella le dice que pele y corte las papas, que es lo que ella estaba haciendo. Cuando Jorge empieza, Andrea compara una de las papas con las que ella ya cortó, y lo corrige:

'Andrea is cooking dinner, and Jorge comes into the kitchen to help her. She tells him to peel and cut the potatoes, which is what she was doing. When Jorge starts to do so, Andrea compares one of the potatoes with the ones she has already cut, and she tells him:'

a. Est-ás   corta-ndo muy gruesas esas   papas,   Jorge.
   be-PRS.2.SG cut-PROG too thick   those potatoes Jorge
   'You are cutting the potatoes too thick, Jorge.'

b. Cort-ás   muy gruesas esas   papas,   Jorge.
   cut-PRS.2.SG too thick   those potatoes Jorge
   'You are cutting the potatoes too thick, Jorge.'

   c. Corta-ste   muy gruesas esas   papas,   Jorge.
      cut-PST.PFV.2.SG too   thick   those potatoes Jorge
      'You cut the potatoes too thick, Jorge.'

(4) **Rich experiential context**: Nicolás llega a su casa y está buscando a Sofía. La llama, pero ella no contesta. Cuando Nicolás llega a la puerta de su habitación, la puerta está abierta, y la ve a Sofía bailando con los auriculares puestos. Cuando ella se los saca, él le dice:

'Nicolas gets home and he is looking for Sofia. He calls her, but she does not answer. When Nicolas goes to the bedroom, the door is open, and he sees Sofia dancing with her headphones on. When she takes them off, he tells her:'

Poor experiential context: Nicolás llega a su casa y está buscando a Sofía. La llama, pero ella no contesta. Cuando Nicolás llega a la puerta de su habitación, la puerta está cerrada, pero se escucha música desde adentro. Él golpea la puerta y le grita:

'Nicolas gets home and he is looking for Sofia. He calls her, but she does not answer. When Nicolas goes to the bedroom, the door is closed, but he can hear music coming from inside. He knocks on the door and yells to her:'

   a. Est-ás   escucha-ndo muy fuerte esa   música horrible.
      be-PRS.2.SG listen-PROG too   loud   that music   horrendous
      'You are listening that horrendous music too loud.'

   b. Esuch-ás   muy fuerte esa   música horrible.
      listen-PRS.2.SG too   loud   that music   horrendous
      'You are listening that horrendous music too loud.'

   c. Escucha-ste   muy fuerte esa   música horrible.
      listen-PST.PFV.2.SG too   loud   that music   horrendous
      'You listened that horrendous music too loud.'

(5) **Rich experiential context**: Manuela se acaba de mudar y su amiga Romina va a su casa para ayudarla a acomodar las cosas. Romina se encarga de poner los libros en la biblioteca, pero Manuela los quiere en orden alfabético. Entonces, al ver el modo de Romina, le dice:

'Manuela has just moved and her friend Romina comes to her new house to help

her set up the place. Romina is in charge of the bookshelf, but Manuela wants the books in alphabetical order. So, when she sees Romina's way of organizing them, she tells her:'

Poor experiential context: Manuela se acaba de mudar y su amiga Romina va a su casa para ayudarla a acomodar las cosas. Romina se encarga de poner los libros en la biblioteca, pero Manuela los quiere en orden alfabético. Al ver que en la biblioteca hay libros con la letra D, pero que en la mesa todavía hay libros con la letra B, Manuela le dice:

'Manuela has just moved and her friend Romina comes to her new house to help her set up the place. Romina is in charge of the bookshelf, but Manuela wants the books in alphabetical order. When Manuela sees that there are books on the bookshelf with the letter D, but that there are still books on the table with the letter B, she tells her friend:'

a. Est-ás   ordena-ndo   mal   los libros de la biblioteca.
   be-PRS.2.SG organize-PROG wrong the books of the bookshelf
   'You are organizing the books on the bookshelf wrong.'

b. Orden-ás   mal   los libros de la biblioteca.
   organize-PRS.2.SG wrong the books of the bookshelf
   'You are organizing the books on the bookshelf wrong.'

c. Ordena-ste   mal   los libros de la biblioteca.
   organize-PST.PFV.2.SG wrong the books of the bookshelf
   'You organized the books on the bookshelf wrong.'

(6) **Rich experiential context**: Es un día de sol, y Ana y Sofía están arreglando el jardín de la casa de Sofía. Mientras Sofía se dedica a los jazmines, Ana se encarga de los rosales. Al ver que Ana no corta las rosas desde la base, Sofía le dice a su amiga:

'It is a sunny day, and Ana and Sofía are fixing up the garden at Sofía's house. While Sofía takes on the jasmines, Anna is in charge of the roses. When Sofía sees that Ana is not grabbing the roses from their base, she tells her:'

Poor experiential context: Es un día de sol, y Ana y Sofía están arreglando el jardín de la casa de Sofía. Mientras Sofía se dedica a los jazmines, Ana se encarga

de los rosales. Al ver la primera rosa que corta Ana, Sofía le dice a su amiga:

'It is a sunny day, and Ana and Sofía are fixing up the garden at Sofía's house. While Sofía takes on the jasmines, Anna is in charge of the roses. When Sophia sees the first rose that Ana has cut, she tells her friend:'

a. Est-ás   poda-ndo   las rosas un poco cortas.
   be-PRS.2.SG prune-PROG the roses a   bit   short
   'You are pruning the roses a bit too short.'

b. Pod-ás   las rosas un poco cortas.
   prune-PRS.2.SG the roses a   bit   short
   'You are pruning the roses a bit too short.'

c. Podaste   las rosas un poco cortas.
   prune.PST.PFV.2.SG the roses a   bit   short
   'You pruned the roses a bit too short.'

(7) **Rich experiential context**: Manuel y Lucía trabajan juntos en una panadería, y tienen que hacer una torta de casamiento. Una vez que Lucía terminó con el horneado, Manuel está a cargo de la decoración. Lucía se acerca a la cocina a ver el trabajo de Manuel y le comenta:

'Manuel and Lucia work together at a bakery and they have to make a wedding cake. Once Lucia finished with the baking, Manuel is in charge of decorating the cake. Lucia comes to the kitchen to see his work and tells him:'

Poor experiential context: Manuel y Lucía trabajan juntos en una panadería, y tienen que hacer una torta de casamiento. Una vez que Lucía terminó con el horneado, Manuel está a cargo de la decoración. Lucía está en el depósito y no llega a ver la torta en la cocina, pero ve los productos que Manuel va eligiendo, y le dice:

'Manuel and Lucia work together at a bakery and they have to make a wedding cake. Once Lucia finished with the baking, Manuel is in charge of decorating the cake. Lucia is in the warehouse and she does not see the cake from there, but she sees the products that Manuel is picking, and tells him:'

a. Est-ás   decora-ndo   muy bien la   torta.
   be-PRS.2.SG decorate-PROG very well the cake
   'You are decorating the cake very nicely.'

b. Decor-ás   muy bien la torta.
   decorate-PRS.2.SG very well the cake

   'You are decorating the cake very nicely.'

c. Decora-ste   muy bien la torta.
   decorate-PST.PFV.2.SG very well the cake

   'You decorated the cake very nicely.'

(8) **Rich experiential context**: Nicolás va a cenar a la casa de su amigo Sebastián. Cuando llega, Sebastián acaba de poner una tarta en el horno. Se ponen a tomar vino y a charlar. Cuando Sebastián va a traer más vino, Nicolás abre el horno, ve que a la tarta todavía le falta un montón, y le dice a su amigo:

'Nicolas goes to dinner at his friend house. When he gets there, Sebastian has just put a quiche in the oven. They start chatting and drinking wine. When Sebastian goes to look for more wine, Nicolas opens the oven, sees that the quiche stills needs more time, and tells his friend:'

Poor experiential context: Nicolás va a cenar a la casa de su amigo Sebastián. Cuando llega, Sebastián acaba de poner una tarta en el horno. Se ponen a tomar vino y a charlar. Cuando Sebastián va a traer más vino, Nicolás mira su reloj, se da cuenta del tiempo que pasó y le dice a su amigo:

'Nicolas goes to dinner at his friend house. When he gets there, Sebastian has just put a quiche in the oven. They start chatting and drinking wine. When Sebastian goes to look for more wine, Nicolas takes a look at his watch, realizes the amount of time that has gone by, and tells his friend:'

a. Est-ás   cocina-ndo la tarta de espinacas demasiado lento
   be-PRS.2.SG cook-PROG the quiche of spinach   too   slowly

   'You are cooking the spinach quiche too slowly.'

b. Cocin-ás   la tarta de espinaca demasiado lento
   cook-PRS.2.SG the quiche of spinach too   slowly

   'You are cooking the spinach quiche too slowly.'

c. Cocina-ste   la tarta de espinaca demasiado lento
   cook-PST.PFV.2.SG the quiche of spinach too   slowly

   'You cooked the spinach quiche too slowly.'

(9) **Rich experiential context**: Fernando está estudiando en su cuarto cuando escucha que su hermana Laura pone música y empieza a cantar. La llama desde su cuarto para que baje el volumen, pero ella no contesta. Entonces, Fernando va hasta la habitación de Laura, abre la puerta y le dice:

'Fernando is studying in his room when he hears that his sister has put some music on and has started singing. He calls her from his room so that she turns the volume down, but she does not answer. So, Fernando walks to Laura's bedroom, opens the door, and tells her:'

Poor experiential context: Fernando está estudiando en su cuarto cuando escucha que su hermana Laura pone música y empieza a cantar. La llama desde su cuarto para que baje el volumen, pero ella no contesta. Entonces, sale al pasillo y le grita:

'Fernando is studying in his room when he hears that his sister has put some music on and has started singing. He calls her from his room so that she turns the volume down, but she does not answer. So, he goes out to the hallway and yells to her:'

a. Est-ás   canta-ndo muy fuerte esa   canción, Laura
   be-PRS.2.SG sing-PROG too loud   that song   Laura
   'You are singing that song too loud, Laura.'

b. Cant-ás   muy fuerte esa   canción, Laura.
   sing-PRS.2.SG too loud   that song   Laura
   'You are singing that song too loud, Laura.'

c. Canta-ste   muy fuerte esa   canción, Laura.
   sing-PST.PFV.2.SG too loud   that song   Laura
   'You sang that song too loud, Laura.'

(10) **Rich experiential context**: Ana está viendo televisión en su habitación cuando escucha que su hermano Juan empieza a practicar guitarra en su cuarto. Lo llama desde su habitación para que él cierre la puerta de la suya, pero él no contesta. Entonces, ella va hasta la habitación de Juan y le dice:

'Ana is watching TV in her room when she hears that her brother Juan starts playing guitar in his bedroom. She calls him from her room so that he closes his bedroom's door, but he does not answer. So, she goes to his bedroom and tells him:'

Poor experiential context: Ana está viendo televisión en su habitación cuando escucha que su hermano Juan empieza a practicar guitarra en su cuarto. Lo llama desde su habitación para que él cierre la puerta de la suya, pero él no contesta. Entonces, le manda un mensaje de texto que dice:

'Ana is watching TV in her room when she hears that her brother Juan starts playing guitar in his bedroom. She calls him from her room so that he closes his bedroom's door, but he does not answer. So, she texts him:'

a. Est-ás   toca-ndo   muy fuerte la   guitarra, Juan
    be-PRS.2.SG play-PROG too   loudly the guitar   Juan
    'You are playing the guitar too loudly, Juan.'

b. Toc-ás   muy fuerte la   guitarra, Juan
    play-PRS.2.SG too   loudly the guitar   Juan
    'You are playing the guitar too loudly, Juan.'

c. Toca-ste   muy fuerte la   guitarra, Juan
    play-PST.PFV.2.SG too   loudly the guitar   Juan
    'You played the guitar too loudly, Juan.'

Third person

(1)   **Rich experiential context**: Están Alicia, Claudia, y Mónica en una oficina, sentadas alrededor de una mesa, cada una con su computadora. Alicia se agacha debajo de la mesa. Claudia pregunta por qué Alicia hace eso. Mónica se agacha para ver y dice:

'Alicia, Claudia and Monica are at the office, sitting around a table, each one of them with their own computer. Alicia goes under the table, and Claudia asks why is she doing that. Monica bends down to see and says:'

Poor experiential context: Están Alicia, Claudia, y Mónica en una oficina, sentadas alrededor de una mesa, cada una con su computadora. Alicia se agacha debajo de la mesa. Claudia pregunta por qué Alicia hace eso. Mónica ve que la computadora de Alicia está apagada y dice:

'Alicia, Claudia and Monica are at the office, sitting around a table, each one of them with their own computer. Alicia goes under the table, and Claudia asks why is she doing that. Monica sees that Alicia's computer is off and says:'

    a. Est-á   enchufa-ndo la computadora.
       be-PRS.3.SG plug.in-PROG the computer

       'She is plugging in the computer.'

    b. Enchuf-a   la   computadora.
       plug.in-PRS.3.SG the computer

       'She is plugging in the computer.'

    c. Enchuf-ó   la   computadora.
       plug.in-PST.PFV.3.SG the computer

       'She plugged in the computer.'

(2) **Rich experiential context**: Juan está en una fiesta y está buscando a Pedro. Juan se encuentra con María, la novia de Pedro, y le pregunta si sabe dónde está. María ve a Pedro a través de la puerta de la cocina, lo señala, y le contesta a Juan: 'Juan is at a party and he is looking for Pedro. John runs into María, Pedro's girlfriend, and asks her if she knows where he is. María sees Pedro through the kitchen door, points at him, and tells Juan:'

Poor experiential context: Juan está en una fiesta y está buscando a Pedro. Juan se encuentra con María, la novia de Pedro, y le pregunta si sabe dónde está. María acaba de ver a Pedro agarrando una cerveza de la heladera, y le contesta a Juan:

'Juan is at a party and he is looking for Pedro. John runs into María, Pedro's girlfriend, and asks her if she knows where he is. María has just seen Pedro grabbing a beer from the fridge, so she tells Juan:'

    a. Est-á   toma-ndo   una cerveza en la   cocina.
       be-PRS.3.SG drink-PROG a   beer   in the kitchen

       'He is drinking a beer in the kitchen.'

    b. Tom-a   una cerveza en la   cocina.
       drink-PRS.3.SG a   beer   in the kitchen

       'He is drinking a beer in the kitchen.'

    c. Tom-ó   una cerveza en la   cocina.
       drink-PST.PFV.3.SG a   beer   in the kitchen

       'He drank a beer in the kitchen.'

(3) **Rich experiential context**: María llega a su casa y se pregunta dónde está su hijo. Le pregunta al padre del chico, quien va hasta el cuarto del hijo, abre la puerta, ve la televisión prendida, y le contesta a María:

'María gets home and wonders where her son is. She asks the child's father, who goes to the child's bedroom, opens the door, sees the TV on, and tells María:'

Poor experiential context: María llega a su casa y se pregunta dónde está su hijo. Le pregunta al padre del chico, quien, mientras va hacia el cuarto del hijo, escucha la televisión prendida y le contesta a María:

'María gets home and wonders where her son is. She asks the child's father, who, while going to the child's bedroom, hears the TV on, and tells María:'

  a. Est-á   juga-ndo   a la   PlayStation en su cuarto.
     be-PRS.3.SG play-PROG to the PlayStation in his room
     'He is playing PlayStation in his room.'

  b. Juega   a la   PlayStation en su cuarto.
     play-PRS.3.SG to the PlayStation in his room
     'He is playing PlayStation in his room.'

  c. Jugó   a la   PlayStation en su cuarto.
     play-PST.PFV.3.SG to the PlayStation in his room
     'He played PlayStation in his room.'

(4) **Rich experiential context**: Juan está en su casa y suena el teléfono. Es alguien que pregunta si puede hablar con su hermano. Juan ve a su hermano con el celular, en el medio de una conversación, y entonces contesta:

'Juan is at home and the phone rings. It's someone asking to talk to his brother. Juan sees that his brother is on his cellphone, in the middle of a conversation, so he tells the caller:'

Poor experiential context: Juan está en su casa y suena el teléfono. Es alguien que pregunta si puede hablar con su hermano. Juan escucha a su hermano en su habitación, en el medio de una conversación, y entonces contesta:

'Juan is at home and the phone rings. It's someone asking to talk to his brother. Juan hears his brother inside his room, in the middle of a conversation, so he tells the caller:'

    a. Est-á   habla-ndo por celular   con un amigo.
       be-PRS.3.SG talk-PROG on   cellphone with a   friend
       'He is talking on his cellphone with a friend.'

    b. Habla   por celular   con un amigo.
       talk-PRS.3.SG on   cellphone with a   friend
       'He is talking on his cellphone with a friend.'

    c. Habló   por celular   con un amigo.
       talk-PST.PFV.3.SG on   cellphone with a   friend
       'He talked on his cellphone with a friend.'

(5) **Rich experiential context**: Es domingo a la mañana y toda la familia se reúne a desayunar en el comedor. Falta Juan en la mesa y su madre pregunta por él. La hermana de Juan lo vio hace un momento en la cocina y entonces contesta:

'It's Sunday morning and the whole family meets for breakfast in the dining room. Juan is not at the table so his mom asks where he is. Juan's sister saw him a moment ago in the kitchen, so she answers:'

Poor experiential context: Es domingo a la mañana y toda la familia se reúne a desayunar en el comedor. Falta Juan en la mesa y su madre pregunta por él. La hermana de Juan se da cuenta de que todavía falta el pan en la mesa y entonces contesta:

'It's Sunday morning and the whole family meets for breakfast in the dining room. Juan is not at the table so his mom asks where he is. Juan's sister realizes that the bread is still not on the table, so she answers:'

    a. Est-á   tosta-ndo   el pan en la cocina.
       be-PRS.3.SG toast-PROG the bread in the kitchen
       'He is toasting the bread in the kitchen.'

    b. Tuest-a   el pan en la cocina.
       toast-PRS.3.SG the bread in the kitchen
       'He is toasting the bread in the kitchen.'

    c. Tost-ó   el pan en la cocina.
       toast-PST.PFV.3.SG the bread in the kitchen
       'He toasted the bread in the kitchen.'

(6) **Rich experiential context**: Ana llega a su casa y busca a su marido; le pregunta a su hija si lo vio en algún lugar. Su hija lo acaba de ver en el living, sentado en el sillón con el diario, y le contesta a su madre:

'Ana gets home and is looking for her husband. She asks her daughter if she has seen him. Her daughter just saw him in the living room, sitting in the couch with the newspaper, so she tells her mom:'

Poor experiential context: Ana llega a su casa y busca a su marido; le pregunta a su hija si lo vio en algún lugar. Su hija ve que el diario ya no está sobre la mesa de la cocina y le contesta a su madre:

'Ana gets home and is looking for her husband. She asks her daughter if she has seen him. Her daughter sees that the newspaper is not on the kitchen table anymore, so she tells her mom:'

a. Est-á   leye-ndo   el   diario   en el   living.
   be-PRS.3.SG read-PROG the newspaper in the living.room
   'He is reading the newspaper in the living room.'

b. Le-e   el   diario   en el   living.
   read-PRS.3.SG the newspaper in the living.room
   'He is reading the newspaper in the living room.'

c. Le-yó   el   diario   en el   living.
   read-PST.PFV.3.SG the newspaper in the living.room
   'He read the newspaper in the living room.'

(7) **Rich experiential context**: Matías y Pedro están en la oficina cuando comienzan a oír unos ruidos que vienen de la calle. Pedro quiere saber qué sucede y le pregunta a Matías, que está cerca de la ventana. Matías se asoma por la ventana y le contesta:

'Matías and Pedro are at the office when they start hearing some noises coming from the street. Pedro wants to know what is happening and asks Matías, who is near the window. Matías looks outside and answers:'

Poor experiential context: Matías y Pedro están en la oficina cuando comienzan a oír unos ruidos que vienen de la calle. Pedro quiere saber qué sucede y le pregunta a Matías, quien sabe que ese día hay un desfile militar. Matías le contesta:

'Matías and Pedro are at the office when they start hearing some noises coming from

the street. Pedro wants to know what is happening and asks Matías, who knows that there is a military parade that day. Matías tells him:'

a. Est-á   pasa-ndo   el   desfile del   Ejército por la   avenida.
be-PRS.3.SG pass.by-PROG the parade of.the Army   on   the street
'The military parade is passing by on the street.'

b. Pas-a   el   desfile del   Ejército por la   avenida.
pass.by-PRS.3.SG the parade of.the Army   on   the street
'The military parade is passing by on the street.'

c. Pas-ó   el   desfile del   Ejército por la   avenida.
pass.by-PST.PFV.3.SG the parade of.the Army   on   the street
'The military parade passed by on the street.'

(8)   **Rich experiential context**: Andrés y su jefe están en la oficina. El jefe ve que Andrés está disperso, así que se acerca a su escritorio y lo increpa. La computadora de Andrés muestra una barra de un proceso en progreso. Entonces, Andrés le dice: 'Andrés and his boss are at the office. The boss sees that Andrés is unfocused, so he calls him out. Andrés' computer shows a progress bar, so Andrés tells him:'

Poor experiential context: Andrés y su jefe están en la oficina. El jefe ve que Andrés está disperso, así que se acerca a su escritorio y lo increpa. La computadora de Andrés está prendida, pero la pantalla está apagada. Entonces, Andrés le dice: 'Andrés and his boss are at the office. The boss sees that Andrés is unfocused, so he calls him out. Andrés' computer is on, but the screen is off. Andrés tells his boss:'

a. Se   est-á   actualiza-ndo el   sistema operativo de la
3.SG.REFL be-PRS.3.SG update-PROG the system   operating of   the
computadora.
computer
'The computer operating system is updating.'

b. Se   actualiz-a   el   sistema operativo de la   computadora.
3.SG.REFL update-PRS.3.SG the system   operating of   the computer
'The computer operating system is updating.'

c. Se   actualiz-ó   el   sistema operativo de la   computadora.
3.SG.REFL update-PST.PFV.3.SG the system   operating of   the computer
'The computer operating system updated.'

(9) **Rich experiential context**: Mónica está con su hija Paloma y su marido Manuel en el zoológico. Van los tres a ver la jaula de los monos. Al llegar, Paloma está medio distraída, así que la madre le señala la jaula y le dice:

'Monica is with her daughter Paloma and her husband Manuel at the zoo. The three of them are going to see the monkeys. When they get there, Paloma is a bit distracted, so her mom points at the monkeys' cage and tells her:'

Poor experiential context: Mónica está con su hija Paloma y su marido Manuel en el zoológico. Van los tres a ver la jaula de los monos, pero Paloma y Manuel se retrasan para comprar un helado. Mónica llega primero a la jaula y desde allí los apura:

'Monica is with her daughter Paloma and her husband Manuel at the zoo. The three of them are going to see the monkeys, but Paloma and Manuel stay behind to buy some ice-cream. Monica gets first to the monkeys' cage and she tells them to hurry up by telling Paloma:'

a. El mono   est-á   comie-ndo una banana en su jaula.
   the monkey be-PRS.3.SG eat-PROG   a   banana in his cage
   'The monkey is eating a banana in his cage.'

b. El mono   com-e   una banana en su jaula
   the monkey eat-PRS.3.SG a   banana in his cage
   'The monkey is eating a banana in his cage.'

c. El mono   comi-ó   una banana en su jaula
   the monkey eat-PST.PFV.3.SG a   banana in his cage
   'The monkey ate a banana in his cage.'

(10) **Rich experiential context**: Marta y Susana esperan a Elsa en la puerta del teatro. Se está haciendo tarde y están preocupadas. Susana se pregunta dónde estará. Marta la ve a Elsa a punto de cruzar la calle y le dice a Susana:

'Marta and Susana are waiting for Elsa at the theater's door. It is getting late and they start to get worried. Susana wonders where she might be. Marta sees Elsa just about to cross the street and tells Susana:'

Poor experiential context: Marta y Susana esperan a Elsa en la puerta del teatro. Se está haciendo tarde y están preocupadas. Susana se pregunta dónde

estará. Marta la llama al celular y, luego de hablar con Elsa, le dice a Susana:

'Marta and Susana are waiting for Elsa at the theater's door. It is getting late and they start to get worried. Susana wonders where she might be. Marta calls Elsa's cellphone and, after talking with Elsa, she tells Susana:'

a. Está   vinie-ndo   para acá en un minuto.
   be-PRS.3.SG come-PROG over here in a   minute

   'She is coming over here in a minute.'

b. Vien-e   para acá en un minuto.
   come-PRS.3.SG over here in a   minute

   'She is coming over here in a minute.'

c. Vin-o   para acá en un minuto.
   come-PST.PFV.3.SG over here in a   minute

   'She came over here in a minute.'

Appendix B: Stimuli for *generalization* studies

First person

(1) **Alternative Supporting Context**: Ana está por salir a correr, y se encuentra en la puerta con su vecina del cuarto piso, que también tiene puesta ropa deportiva. Se saludan, y la vecina le comenta:

'Ana is going out for a run, and she meets her fourth floor neighbor at the door, who is also wearing athletic clothes. They say hi, and her neighbor tells her:'

Alternative Neutral Context: Ana está por salir a correr, y se encuentra en la puerta con una nueva vecina, que también tiene puesta ropa deportiva. Se saludan, y la vecina le comenta:

'Ana is going out for a run, and she meets a new neighbor at the door, who is also wearing athletic clothes. They say hi, and her neighbor tells her:'

   a. Yo est-oy   corrie-ndo tres   veces por semana.
       I   be-PRS.1.SG run-PROG three times a   week
       'I am running three times a week.'

   b. Yo corr-o   tres   veces por semana.
       I   run-PRES.1.SG three times a   week
       'I run three times a week.'

   c. Yo corr-í   tres   veces por semana.
       I   run-PST.PFV.1.SG three times a   week
       'I ran three times a week.'

(2) **Alternative Supporting Context**: Manuel está paseando por Palermo y se encuentra con Ramiro, un amigo al que no ve hace unos meses. Se ponen a conversar y Ramiro le cuenta:

'Manuel is taking a walk around Palermo and he runs into Ramiro, a friend he has not seen in a few months. They start chatting and Ramiro tells him:'

Alternative Neutral Context: Manuel está paseando por Palermo y se encuentra con Ramiro, un compañero nuevo de la facultad. Se ponen a conversar y Ramiro le cuenta:

'Manuel is taking a walk around Palermo and he runs into Ramiro, a new classmate from college. They start chatting and Ramiro tells him:'

a. Est-oy   trabaja-ndo en un restaurante por acá cerca.
   be-PRS.1.SG work-PROG in a   restaurant by   here close
   'I am working at a restaurant near here.'

b. Trabaj-o   en un restaurante por acá cerca.
   work-PRES.1.SG in a   restaurant by   here close
   'I work at a restaurant near here.'

c. Trabaj-é   en un restaurante por acá cerca.
   work-PST.PFV.1.SG in a   restaurant by   here close
   'I worked at a restaurant near here.'

(3) **Alternative Supporting Context**: El escritor García Márquez está dando una entrevista. El entrevistador le pregunta por sus lecturas estos días, y García Márquez le contesta:

'García Márquez, the writer, is giving an interview. The interviewer asks him what are his readings these days, and García Márquez answers:'

Alternative Neutral Context: El escritor García Márquez está dando una entrevista. El entrevistador le pregunta por las lecturas a las que siempre vuelve, y García Márquez le contesta:

'García Márquez, the writer, is giving an interview. The interviewer asks him what are the readings that he always goes back to, and García Márquez answers:'

a. Est-oy   leye-ndo   literatura infantil alemana.
   be-PRS.1.SG read-PROG literature juvenile German
   'I am reading German children's literature.'

b. Le-o   literatura infantil alemana.
   read-PRES.1.SG literature juvenile German
   'I read German children's literature.'

c. Le-í   literatura infantil alemana.
   read-PST.PFV.1.SG literature juvenile German
   'I read German children's literature.'

(4) **Alternative Supporting Context**: Florencia y Juan son compañeros de la facultad. Los dos siempre llegan tarde a clase porque hay mucho tránsito, pero últimamente Juan está llegando a tiempo. Cuando Florencia le pregunta cómo hace, él le dice:

'Florencia and Juan are classmates. Both always get late to class because there is a lot of traffic, but lately Juan is making it on time. When Florencia asks him how he is doing that, he tells her:'

Alternative Neutral Context: Florencia y Juan son compañeros de la facultad. Florencia siempre llega tarde a clase porque hay mucho tránsito, pero Juan siempre lo hace a tiempo. Cuando Florencia le pregunta cómo hace, él le dice:

'Florencia and Juan are classmates. Florencia always gets late to class because there is a lot of traffic, but Juan always make it on time. When Florencia asks him how he does that, he tells her:'

  a. Est-oy   vinie-ndo   en bicicleta para llegar a   tiempo.
      be-PRS.1.SG come-PROG by bicycle   to   arrive on time
      'I am biking to make it on time.'

  b. Veng-o   en bicicleta para llegar a   tiempo.
      come-PRES.1.SG by bicycle   to   arrive on time
      'I bike to make it on time.'

  c. Vin-e   en bicicleta para llegar a   tiempo.
      come-PST.PFV.1.SG by bicycle   to   arrive on time
      'I biked to make it on time.'

(5) **Alternative Supporting Context**: María y Cecilia se encuentran seguido en el gimnasio, pero Cecilia empezó a faltar. Cuando María le pregunta el por qué, Cecilia le contesta:

'María and Cecilia often run into each other at the gym, but lately Cecilia started missing class. When María asks her why, Cecilia tells her:'

Alternative Neutral Context: María y Cecilia se encuentran seguido en el gimnasio, pero Cecilia siempre llega después de que la clase empezó. Cuando María le pregunta el por qué, Cecilia le contesta:

'María and Cecilia often run into each other at the gym, but Cecilia always gets

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there after the class has already started. When María asks her why, Cecilia tells her:'

    a. Est-oy   salie-ndo   tarde del   trabajo.
       be-PRS.1.SG leave-PROG late   from.the work
       'I am leaving work late.'

    b. Salg-o   tarde del   trabajo.
       leave-PRES.1.SG late   from.the work
       'I leave work late.'

    c. Sal-í   tarde del   trabajo.
       come-PST.PFV.1.SG late   from.the work
       'I left work late.'

(6)   **Alternative Supporting Context**: Martín y Laura son compañeros del colegio. Los dos siempre llegan tarde a la mañana, pero últimamente Laura está llegando a tiempo. Cuando Martín le pregunta cómo hace, ella le dice:

'Martin and Laura are classmates. Both of them are usually late to school, but lately Laura is making it on time. When Martin asks her how she is getting there early, she tells him:'

Alternative Neutral Context: Martín y Laura son compañeros del colegio. Martín siempre llega tarde a la mañana, pero Laura lo hace a tiempo. Cuando Martín le pregunta cómo hace, ella le dice:

'Martin and Laura are classmates. Martín is always late to school, but Laura makes it on time. When Martin asks her how she gets there early, she tells him:'

    a. Me   est-oy   levanta-ndo   más temprano para llegar a tiempo.
       1.SG.REFL be-PRS.1.SG wake.up-PROG more early   to   arrive on time
       'I am waking up earlier to make it on time.'

    b. Me   levant-o   más temprano para llegar a tiempo.
       1.SG.REFL wake.up-PRS.1.SG more early   to   arrive on time
       'I wake up earlier to make it on time.'

    c. Me   levant-é   más temprano para llegar a tiempo.
       1.SG.REFL wake.up-PST.PFV.1.SG more early   to   arrive on time
       'I woke up earlier to make it on time.'

(7) **Alternative Supporting Context**: Patricia y Marcelo están por cenar unas milanesas, que a Marcelo le suelen salir muy ricas. A Patricia le parece que últimamente están un poco sosas y le pregunta por qué. Marcelo le contesta:

'Patricia and Marcelo are about to have breaded beef for dinner, which Marcelo makes really well. Lately, Patricia think that the dish is a bit bland, so she asks him why. Marcelo tells her:'

Alternative Neutral Context: Patricia y Marcelo están por cenar unas milanesas, que a Marcelo le suelen salir un poco sosas. Patricia le pregunta por qué siempre tienen ese sabor y Marcelo le contesta:

'Patricia and Marcelo are about to have breaded beef for dinner, which Marcelo makes a bit bland. Patricia asks him why the food always has no flavor, and Marcelo tells her:'

    a. Las   est-oy   prepara-ndo sin   condimentos y   rápido.
       3.PL.F.ACC be-PRS.1.SG prepare-PROG without spices   and fast
       'I am making them fast and with no spices.'

    b. Las   prepar-o   sin   condimentos y   rápido.
       3.PL.F.ACC prepare-PRS.1.SG without spices   and fast
       'I make them fast and with no spices.'

    c. Las   prepar-é   sin   condimentos y   rápido.
       3.PL.F.ACC prepare-PST.PFV.1.SG without spices   and fast
       'I made them fast and with no spices.'

(8) **Alternative Supporting Context**: Manuel y sus amigos están decidiendo qué hacer un domingo. Manuel últimamente está al tanto de todos los eventos culturales que ocurren en la ciudad, y sus amigos le preguntan cómo sabe. Él les contesta:

'Manuel and his friends are deciding what to do on a Sunday. Lately, Manuel knows about every cultural event that happens in the city, and his friends ask him how does he know about them. He tells them:'

Alternative Neutral Context: Manuel y sus amigos están decidiendo qué hacer un domingo. Manuel siempre está al tanto de todos los eventos culturales que ocurren en la ciudad, y sus amigos le preguntan cómo sabe. Él les contesta:

'Manuel and his friends are deciding what to do on a Sunday. Manuel always knows

about every cultural event that happens in the city, and his friends ask him how does he know about them. He tells them:'

a. Est-oy   compra-ndo el diario   los sábados   y   los domingos.
be-PRS.1.SG buy-PROG   the newspaper the saturdays and the sundays
'I am buying the newspaper on Saturday and Sunday.'

b. Comp-o   el diario   los sábados   y   los domingos.
buy-PRES.1.SG the newspaper the saturdays and the sundays
'I buy the newspaper on Saturday and Sunday.'

c. Comp-é   el diario   los sábados   y   los domingos.
buy-PST.PFV.1.SG the newspaper the saturdays and the sundays
'I bought the newspaper on Saturday and Sunday.'

(9)   **Alternative Supporting Context**: Roberto y Alicia están por comer un asado, que a Roberto le suele salir muy rico. Alicia cree que últimamente está un poco soso y le pregunta por qué. Roberto le contesta:

'Roberto and Alicia are about to eat some grilled beef, which Roberto usually cooks really well. Alicia thinks that it is a bit bland lately, so she asks him why. Roberto tells her:'

Alternative Supporting Context: Roberto y Alicia están por comer un asado, que a Roberto no le suele salir muy bien. Alicia le pregunta por qué siempre está un poco soso, y Roberto le contesta:

'Roberto and Alicia are about to eat some grilled beef, which Roberto does not cook very well. Alicia asks him why it is always bland, and he tells her:'

a. Lo   est-oy   cocina-ndo sin   sal y   rápido.
3.SG.M.ACC be-PRS.1.SG cook-PROG without salt and fast
'I am cooking it fast and with no salt.'

b. Lo   cocin-o   sin   sal y   rápido.
3.SG.M.ACC cook-PRS.1.SG without salt and fast
'I cook it fast and with no salt.'

c. Lo   cocin-é   sin   sal y   rápido.
3.SG.M.ACC cook-PST.PFV.1.SG without salt and fast
'I cook it fast and with no salt.'

(10) **Alternative Supporting Context**: Martín se junta en el club con Tomás para jugar al tenis. La volea de Martín ha mejorado mucho últimamente y Tomás lo nota. Martín le comenta:

'Martín and Tomás get together at the club to play tennis. Martín's volley has become much better lately, and Tomás notices it. Martín tells him:'

Alternative Neutral Context: Martín se junta en el club con Tomás para jugar al tenis. La volea de Martín siempre fue muy buena y Tomás le pregunta cómo hace para pegarle tan bien. Martín le contesta:

'Martín and Tomás get together at the club to play tennis. Martín's volley has always been very good, and Tomás asks him how he hits the ball so well. Martín answers him:'

   a. La   est-oy   practica-ndo   media hora en cada clase.
      3.SG.F.ACC be-PRS.1.SG practice-PROG half   hour in each class
      'I am practicing it half an hour in each class.'

   b. La   practic-o   media hora en cada clase.
      3.SG.F.ACC practice-PRS.1.SG half   hour in each class
      'I practice it half an hour in each class.'

   c. La   practiqu-é   media hora en cada clase.
      3.SG.F.ACC practice-PST.PFV.1.SG half   hour in each class
      'I practiced it half an hour in each class.'

Second person

(1) **Alternative Supporting Context**: Pablo va a ver a su médico de cabecera, a quien conoce desde hace años. Después de pesarlo y hablar sobre la dieta de Pablo, el médico le dice:

'Pablo goes to see his primary care physician, who he has known for years. After measuring his weight and talking about his diet, the physician tells him:'

Alternative Supporting Context: Pablo va a ver a su médico de cabecera, a quien aún no conoce. Después de pesarlo y hablar sobre la dieta de Pablo, el médico le dice:

'Pablo goes to see his primary care physician, who he has not met yet. After measuring his weight and talking about his diet, the physician tells him:'

    a. Vos est-ás   comie-ndo sano   a la noche.
       You be-PRS.2.SG eat-PROG healthy at the night

       'You are eating healthy at night.'

    b. Vos com-és   sano   a la noche.
       You eat-PRS.2.SG healthy at the night

       'You eat healthy at night.'

    c. Vos comi-ste   sano   a la noche.
       You eat-PST.PFV.2.SG healthy at the night

       'You ate healthy at night.'

(2) **Alternative Supporting Context**: María retomó danza después de unos meses y está yendo más regularmente. Después de un par de clases, el profesor le dice:

'María picked up ballet after a few months off, and now she is going to class more often. After a few lessons, her professor tells her:'

Alternative Neutral Context: María es una nueva alumna de danza, que empezó a ir hace dos semanas. Después de un par de clases, el profesor le dice:

'María is a new ballet student, who started going to class two weeks ago. After a few lessons, her professor tells her:'

    a. Est-ás   baila-ndo   bastante bien la coreografía.
       be-PRS.2.SG dance-PROG pretty   well the routine

       'You are dancing the routine pretty well.'

    b. Bail-ás   bastante bien las coreografías.
       dance-PRS.2.SG pretty   well the routine

       'You dance the routine pretty well.'

    c. Baila-ste   muy   bien las coreografías.
       dance-PST.PFV.2.SG pretty well the routine

       'You danced the routine pretty well.'

(3) **Alternative Supporting Context**: Alicia volvió a tomar clases de tenis después de unos meses y está yendo al club más seguido. Después de un par de clases, la profesora le dice:

'Alicia started taking tennis lessons again after a couple of months, and now she is going to the club more often. After a couple of lessons, her professor tells her:'

Alternative Neutral Context: Alicia es una nueva alumna de tenis, que empezó

a ir al club hace una semana. Después de un par de clases, la profesora le dice:

'Alicia is a new tennis student, who started going to the club one week ago. After a couple of lessons, her professor tells her:'

a. Le   est-ás   pega-ndo muy bien a la pelota.
3.SG.DAT be-PRS.2.SG hit-PROG very well to the ball

'You are hitting the ball very well.'

b. Le   peg-ás   muy bien a la pelota.
3.SG.DAT hit-PRS.2.SG very well to the ball

'You hit the ball very well.'

c. Le   pega-ste   muy bien a la pelota.
3.SG.DAT hit-PST.PFV.2.SG very well to the ball

'You hit the ball very well.'

(4) **Alternative Supporting Context**: Martín volvió a clases de natación después del invierno, y está yendo dos veces por semana. Después de un par de clases, la profesora le dice:

'Martín started taking swimming lessons again after the winter ended, and is now going twice a week. After a couple of lessons, his professor tells him':

Alternative Neutral Context: Martín acaba de empezar clases de natación en el club del barrio hace dos semanas. Después de un par de clases, la profesora le dice:

'Martín has just started taking swimming lessons at the local club two weeks ago. After a couple of lessons, his professor tells him:'

a. Est-ás   nada-ndo muy bien y rápido.
be-PRS.2.SG swim-PROG very well and fast

'You are swimming fast and really well.'

b. Nad-ás   muy bien y rápido.
swim-PRS.2.SG very well and fast

'You swim fast and really well.'

c. Nada-ste   muy bien y rápido.
swim-PST.PFV.2.SG very well and fast

'You swam fast and really well.'

(5) **Alternative Supporting Context**: Mariano acaba de volver a los entrenamientos de fútbol después de una breve lesión. Después de verlo en la cancha un par de veces,

el director técnico le dice:

'Mariano has come back to soccer practice after a brief injury hiatus. After seeing him play a couple of times, the coach tells him:'

Alternative Neutral Context: Mariano acaba de entrar a un nuevo equipo de fútbol y empezaron los entrenamientos. Después de verlo en la cancha un par de veces, el director técnico le dice:

'Mariano has joined a new soccer team, and weekly practices have just started. After seeing him play a couple of times, the coach tells him:'

  a. Est-ás   ataja-ndo muy bien y   con precisión.
     be-PRS.2.SG catch-PROG very well and with precision

     'You are catching the ball really well and with precision.'

  b. Ataj-ás   muy bien y   con precisión.
     catch-PRS.2.SG very well and with precision

     'You catch the ball really well and with precision.'

  c. Ataja-ste   muy bien y   con precisión.
     catch-PST.PFV.2.SG very well and with precision

     'You caught the ball really well and with precision.'

(6) **Alternative Supporting Context**: Valeria retomó sus clases de pintura después de un tiempo. Luego de un par de clases, la profesora le dice:

'Valeria has started taking painting lessons again after a break. After a couple of meetings, her professor tells her:'

Alternative Neutral Context: Valeria es una nueva alumna de pintura en las clases de los sábados. Luego de un par de clases, la profesora le dice:

'Valeria is a new painting student on Saturday classes. After a couple of meetings, her professor tells her:'

  a. Est-ás   pinta-ndo muy bien y   con buena técnica.
     be-PRS.2.SG paint-PROG very well and with good technique

     'You are painting really well and with a good technique.'

  b. Pint-ás   muy bien y   con buena técnica.
     paint-PRS.2.SG very well and with good technique

     'You paint really well and with a good technique.'

    c. Pinta-ste   muy bien y   con   buena técnica.
       paint-PST.PFV.2.SG very well and with good   technique
       'You painted really well and with a good technique.'

(7)   **Alternative Supporting Context**: Ana volvió a sus clases de piano después de unos meses. Después de sólo un par de clases, el profesor le dice:

'Ana started taking piano lessons again after a few months break. After just a couple of lessons, her professor tells her:'

Alternative Neutral Context: Ana es una nueva alumna de piano en la escuela de música. Después de sólo un par de clases, el profesor le dice:

'Ana is a new piano student at the music school. After just a couple of lessons, her professor tells her:'

    a. Est-ás   toca-ndo   muy bien y   con   buena técnica.
       be-PRS.2.SG play-PROG very well and with good   technique
       'You are playing really well and with a good technique.'

    b. Toc-ás   muy bien y   con   buena técnica.
       play-PRS.2.SG very well and with good   technique
       'You play really well and with a good technique.'

    c. Toca-ste   muy bien y   con   buena técnica.
       play-PST.PFV.2.SG very well and with good   technique
       'You played really well and with a good technique.'

(8)   **Alternative Supporting Context**: José volvió a tomar clases de inglés con el mismo profesor de siempre después del verano. Después de un par de clases, el profesor le dice:

'José resumed his English lessons with the same teacher he had before the summer. After a couple of classes, his teacher tells him:'

Alternative Neutral Context: José empezó a tomar clases de inglés con un nuevo profesor después del verano. Después de un par de clases, el profesor le dice:

'José started taking English lessons with a new teacher after the summer ended. After a couple of lessons, his teacher tells him:'

    a. Est-ás   habla-ndo   muy bien y   con   buen vocabulario.
       be-PRS.2.SG speak-PROG very well and with good lexicon
       'You are speaking English really well and with a good lexicon.'

    b. Habl-ás   muy bien y   con buen vocabulario.
       speak-PRS.2.SG very well and with good lexicon

       'You speak English really well and with a good lexicon.'

    c. Habla-ste   muy bien y   con buen vocabulario.
       speak-PST.PFV.2.SG very well and with good lexicon

       'You spoke English really well and with a good lexicon.'

(9) **Alternative Supporting Context**: Sofía retomó sus clases de poesía ahora que empezó la facultad otra vez. Después de sólo un par de clases, su profesor le dice: 'Now that she is back in college, Sofía started taking poetry classes again. After just a couple of lessons, her professor tells her:'

    Alternative Neutral Context: Sofía es una nueva alumna en las clases de poesía de la facultad. Después de sólo un par de clases, su profesor le dice: 'Sofía is a new student in the poetry class in college. After just a couple of lessons, her professor tells her:'

    a. Est-ás   escribie-ndo muy lindo e   interesante.
       be-PRS.2.SG write-PROG very nice and interesting

       'You are writing very nicely and interestingly.'

    b. Escrib-ís   muy lindo e   interesante.
       write-PRS.2.SG very nice and interesting

       'You write very nicely and interestingly.'

    c. Escribi-ste   muy lindo e   interesante.
       write-PST.PFV.2.SG very nice and interesting

       'You wrote very nicely and interestingly.'

(10) **Alternative Supporting Context**: Isabel volvió a su práctica de yoga de los martes después de un año. Después de observarla un par de clases, la profesora le dice: 'Isabel resumed her Tuesday yoga classes after a one-year break. After looking at her for a couple of classes, her instructor tells her:'

    Alternative Neutral Context: Isabel acaba de empezar a practicar yoga, y es una nueva alumna en las clases de los martes. Después de observarla un par de clases, la profesora le dice:

'Isabel has just started practicing yoga; she is a new student in the Tuesday classes.

After observing her for a couple of classes, her instructor tells her:'

   a. Est-ás   hacie-ndo todas las poses muy bien.
      be-PRS.2.SG do-PROG   all   the poses very well

      'You are doing all the poses really well.'

   b. Hac-és   todas las poses muy bien.
      do-PRS.2.SG all   the poses very well

      'You do all the poses really well.'

   c. Hici-ste   todas las poses muy bien.
      do-PST.PFV.2.SG all   the poses very well

      'You did all the poses really well.'

Third person

(1)   **Alternative Supporting Context**: Andrea y Paula son amigas y están conversando. Mariano, uno de los hijos de Paula, se acaba de mudar a Estados Unidos, y Paula le cuenta a Andrea que, desde que se mudó:

'Andrea and Paula are two friends who are chatting. Mariano, one of Paula's sons, has just moved to the US, and Paula tells Andrea that, since he moved:'

Alternative Neutral Context: Andrea y Paula se acaban de conocer y están conversando acerca de sus hijos. Mariano es uno de los hijos de Paula, y Paula le cuenta a Andrea:

'Andrea and Paula have just met, and they are talking about their kids. Mariano is one of Paula's sons, and Paula tells Andrea that:'

   a. Mariano est-á   juga-ndo al   básquet   dos veces por semana.
      Mariano be-PRS.3.SG play-PROG to.the basketball two times per week

      'Mariano is playing basketball twice a week.'

   b. Mariano jueg-a   al   básquet   dos veces por semana.
      Mariano play-PRS.3.SG to.the basketball two times per week

      'Mariano plays basketball twice a week.'

   c. Mariano jug-ó   al   básquet   dos veces por semana.
      Mariano play-PST.PFV.3.SG to.the basketball two times per week

      'Mariano played basketball twice a week.'

(2) **Alternative Supporting Context**: Pedro y Tomás están conversando acerca del clima y las estaciones. El invierno comenzó hace unos días y Pedro comenta:

'Pedro and Tomás are talking about the weather and the seasons. Winter has just started a few days ago, and Pedro says:'

Alternative Neutral Context: Pedro y Tomás están conversando acerca del clima y las estaciones. Ambos viven en la Patagonia; Pedro desde que era chico, y Tomás sólo hace unos meses. Pedro le comenta que ahí:

'Pedro and Tomás are talking about the weather and the seasons. Both live in Patagonia —Pedro, since he was a boy, and Tomas, since a few months ago. Pedro tells Tomás that there:'

    a. Est-á   anochecie-ndo más temprano lamentablemente.
       be-PRS.3.SG get.dark-PROG more early   unfortunately
       'It is getting dark earlier unfortunately.'

    b. Anochec-e   más temprano lamentablemente.
       get.dark-PRS.3.SG more early   unfortunately
       'It gets dark earlier unfortunately.'

    c. Anochec-ió   más temprano lamentablemente.
       get.dark-PST.PFV.3.SG more early   unfortunately
       'It got dark earlier unfortunately.'

(3) **Alternative Supporting Context**: Lucía y Daniela están charlando acerca del clima y las estaciones. El verano está por empezar y Lucía comenta:

'Lucia and Daniela are talking about the weather and the seasons. Summer is about to begin, and Lucia says:'

Alternative Neutral Context: Lucía y Daniela están charlando acerca del clima y las estaciones. Lucía vivía antes en Puerto Madryn y comenta que allí:

'Lucia and Daniela are talking about the weather and the seasons. Lucía used to live in Puerto Madryn, and she tells Daniela that there:'

    a. Est-á   amanecie-ndo más temprano lamentablemente.
       be-PRS.3.SG get.light-PROG more early   unfortunately
       'It is getting light earlier unfortunately.'

    b. Amanec-e   más   temprano lamentablemente.
       get.light-PRS.3.SG more early   unfortunately
       'It gets light earlier unfortunately.'

    c. Amanec-ió   más   temprano lamentablemente.
       get.light-PST.PFV.3.SG more early   unfortunately
       'It got light earlier unfortunately.'

(4) **Alternative Supporting Context**: Laura y Cecilia llevan a sus hijos al club a practicar tenis. El hijo de Laura ha mejorado mucho su revés y Cecilia lo nota. Laura le contesta:

'Laura and Cecilia take their kids to the club for tennis lessons. Laura's son has improved his backhand a lot, and Cecilia mentions it. Laura tells her:'

Alternative Neutral Context: Laura y Cecilia llevan a sus hijos al club a practicar tenis. El hijo de Laura siempre ha pegado un muy buen revés y Cecilia le pregunta cómo hace. Laura le contesta:

'Laura and Cecilia take their kids to the club for tennis lessons. Laura's son has always had a great backhand, and Cecilia asks Laura how he has learned it. Laura tells her:'

    a. Est-á   entrenan-ndo dos veces por semana.
       be-PRS.3.SG train-PROG   two times per week
       'He is training twice a week.'

    b. Entren-a   dos veces por semana.
       train-PRS.3.SG two times per week
       'He trains twice a week.'

    c. Entren-ó   dos veces por semana.
       train-PST.PFV.3.SG two times per week
       'He trained twice a week.'

(5) **Alternative Supporting Context**: Ana y Cecilia están charlando acerca del clima y las estaciones. El verano comenzó hace unos días y Cecilia comenta:

'Ana and Cecilia are talking about the weather and the seasons. Summer started a few days ago, and Cecilia says:'

Alternative Neutral Context: Ana y Cecilia están charlando acerca del clima y las estaciones. Ana se acaba de mudar donde vive Cecilia, y ella le comenta que allí:

'Ana and Cecilia are talking about the weather and the seasons. Ana has just moved to where Cecilia lives, so Cecilia tells her that there:'

a. Est-á   oscurecie-ndo   más tarde afortunadamente.
   be-PRS.3.SG get.dark-PROG more late   luckily

   'It is getting dark later luckily.'

b. Oscurec-e   más tarde afortunadamente.
   get.dark-PRS.3.SG more late   luckily

   'It gets dark later luckily.'

c. Oscurec-ió   más tarde afortunadamente.
   get.dark-PST.PFV.3.SG more late   luckily

   'It got dark later luckily.'

(6) **Alternative Supporting Context**: Alicia y su marido están conversando acerca de que su hijo Manuel últimamente se queda dormido a la mañana. El marido no sabe por qué y Alicia le dice que Manuel:

'Alicia and her husband are talking about his son Manuel, who has been oversleeping lately. Alicia's husband does not know why his son is doing that, so Alicia tells him that Manuel:'

Alternative Neutral Context: Alicia y su marido están conversando acerca de que su hijo Manuel siempre se queda dormido a la mañana. El marido no sabe por qué y Alicia le dice que Manuel:

'Alicia and her husband are talking about his son Manuel, who always oversleeps in the morning. Alicia's husband does not know why his son does that, so Alicia tells him that Manuel:'

a. Se   est-á   acosta-ndo   muy tarde, casi   a medianoche.
   3.SG.REFL be-PRS.3.SG go.to.bed-PROG very late   almost at midnight

   'Manuel is going to bed too late, almost at midnight.'

b. Se   acuest-a   muy tarde, casi   a medianoche.
   3.SG.REFL go.to.bed-PRS.3.SG very late   almost at midnight

   'Manuel goes to bed too late, almost at midnight.'

c. Se   acost-ó   muy tarde, casi   a medianoche.
   3.SG.REFL go.to.bed-PST.PFV.3.SG very late   almost at midnight

   'Manuel went to bed too late, almost at midnight.'

(7) **Alternative Supporting Context**: Mónica va a buscar a su amiga Carmen al aeropuerto, que vuelve después de unos años a Buenos Aires. Cuando se suben al auto, Mónica le comenta a Carmen que desde que hicieron la nueva autopista:

'Mónica goes to pick up her friend Carmen at the airport, who is coming back to Buenos Aires after a few years. When they get into the car, Mónica tells Carmen that since they built the new highway:'

Alternative Neutral Context: Mónica va a buscar a su amiga Carmen al aeropuerto, que vuelve después de unos años a Buenos Aires. Cuando se suben al auto, Mónica le comenta a Carmen que, al igual que cuando ella vivía allí:

'Mónica goes to pick up her friend Carmen at the airport, who is coming back to Buenos Aires after a few years. When they get into the car, Mónica tells Carmen that, just as when she lived there:'

  a. El viaje hasta casa me   est-á   lleva-ndo media hora en total.
     the trip until home 1.SG.DAT be-PRS.3.SG take-PROG half   hour in total
     'The trip home is taking me half an hour.'

  b. El viaje hasta casa me   llev-a   media hora en total.
     the trip until home 1.SG.DAT take-PRS.3.SG half   hour in total
     'The trip home takes me half an hour.'

  c. El viaje hasta casa me   llev-ó   media hora en total.
     the trip until home 1.SG.DAT take-PST.PFV.3.SG half   hour in total
     'The trip home took me half an hour.'

(8) **Alternative Supporting Context**: Juan lleva a su hijo Antonio a la escuela una mañana, y la maestra lo intercepta y le comenta que Antonio ha mejorado mucho sus notas. Entonces, Juan le comenta que:

'One morning, Juan takes his son Antonio to school. Antonio's teacher runs into him and tells him that Antonio has improved his grades a lot. So, Juan tells her:'

Alternative Neutral Context: Juan lleva a su hijo Antonio a la escuela una mañana, y la maestra lo intercepta y lo felicita porque Antonio tiene notas muy buenas. Entonces, Juan le comenta que:

'One morning, Juan takes his son Antonio to school. Antonio's teacher runs into

him and congratulates him because Antonio has very good grades. So, Juan tells

her:'

   a. Antonio est-á   estudia-ndo todas las tardes.
      Antonio be-PRS.3.SG study-PROG all   the afternoons

      'Antonio is studying every afternoon.'

   b. Antonio estudi-a   todas las tardes.
      Antonio study-PRS.3.SG all   the afternoons

      'Antonio studies every afternoon.'

   c. Antonio estudi-ó   todas las tardes.
      Antonio study-PST.PFV.3.SG all   the afternoons

      'Antonio studied every afternoon.'

(9) **Alternative Supporting Context**: Graciela y una amiga están conversando acerca de que a su hijo Matías últimamente le va mejor en el colegio. Graciela le comenta a su amiga que eso es porque:

'Graciela is talking to a friend about how his son Matías is lately doing better at school. Graciela tells her friend that this is because:'

Alternative Neutral Context: Graciela y una amiga están conversando acerca de que a su hijo Matías siempre le va muy bien en el colegio. Graciela le comenta a su amiga que eso es porque:

'Graciela is talking to a friend about how his son Matías always does well at school. Graciela tells her friend that this is because:'

   a. Se   est-á   junta-ndo   a estudiar con amigos.
      3.SG.REFL be-PRS.3.SG get.together-PROG to study   with friends

      'He is getting together to study with friends.'

   b. Se   junt-a   a estudiar con amigos.
      3.SG.REFL get.together-PRS.3.SG to study   with friends

      'He gets together to study with friends.'

   c. Se   junt-ó   a estudiar con amigos.
      3.SG.REFL get.together-PST.PFV.3.SG to study   with friends

      'He got together to study with friends.'

(10) **Alternative Supporting Context**: Marina llega tarde al trabajo y su jefa le pregunta por qué. Marina le dice que desde que empezaron las obras en los túneles:

'Marina is getting late to work and her boss asks her why. Marina tells her that since the construction started in the tunnels:'

Alternative Neutral Context: Marina llega tarde al trabajo y su jefa le pregunta por qué. Marina le dice que se le rompió el auto y ahora que viene en subte:

'Marina is getting late to work and her boss asks her why. Marina tells her that since her car broke and she started taking the subway:'

a. El   subte   est-á   tarda-ndo cuarenta minutos en total.
   the subway be-PRS.3.SG take-PROG forty   minutes in total
   'The subway is taking forty minutes.''

b. El   subte   tard-a   cuarenta minutos en total.
   the subway take-PRS.3.SG forty   minutes in total
   'The subway takes forty minutes.''

c. El   subte   tard-ó   cuarenta minutos en total.
   the subway take-PST.PFV.3.SG forty   minutes in total
   'The subway took forty minutes.''

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