Flavors of the progressive in the New Romania: the perfective progressive periphrasis in Brazilian Portuguese and Argentinian Spanish

Sabores do progressivo na Romênia Nova: a perífrase perfectiva progressivo no português brasileiro e no espanhol argentino

Romina Trebisacce
Universidad Autónoma de Entre Ríos (UADER), Entre Ríos / Argentina
Universidad de Buenos Aires (UBA), Buenos Aires / Argentina
rtrebisacce@gmail.com
http://orcid.org/0000-0003-3587-3234

Victoria Ferrero
Universidad de Buenos Aires (UBA), Buenos Aires / Argentina
victoria_ferrero@hotmail.com
http://orcid.org/0000-0001-6210-5113

Renato Miguel Basso
Universidade Federal de São Carlos (UFSCar), São Carlos, São Paulo / Brasil
rmbasso@gmail.com
http://orcid.org/0000-0003-2580-0365

Abstract: In this paper, we analyze the perfective progressive periphrasis (PPP) in Brazilian Portuguese (BrP) and Argentinian Spanish (AS) in a comparative way. Based on different linguistic tests, we make two statements regarding the PPP in comparison with the imperfective progressive periphrasis (IPP). Firstly, we claim that the PPP has a progressive and perfective meaning. Secondly, we claim that the PPP allows iterative readings when combined with telic events (i.e., achievements in BrP and AS and accomplishments just in AS). We propose a syntactic and semantic analysis which accounts for these observations in a compositional way: while the gerund form expresses a progressive meaning (present in both periphrases), the auxiliary on the PPP expresses a perfective meaning which allows the iterative readings observed in this periphrasis.

Keywords: verbal aspect; actionality; periphrasis; semantics; syntax.

Resumo: Neste artigo, analisamos a perífrase perfectiva progressiva (PPP) no português brasileiro (PB) e no espanhol argentino (EA), de modo comparativo. Baseado em testes linguísticos, fazemos duas afirmações sobre a PPP em comparação com a perífrase imperfectiva progressiva. Em primeiro lugar, afirmamos que a PPP tem significado progressivo e perfectivo. Em segundo lugar, afirmamos que a PPP permite leituras iterativas quando combinada com eventos télicos (*achievements* no PB e no EA e *accomplishments* somente no EA). Propomos uma análise sintático-semântica que dá conta dessas observações de um modo composicional: ao passo que a forma do gerúndio expressa o significado progressivo (presente em ambas as perífrases), o auxiliar na PPP expressão um significado perfectivo que permite a leitura iterativa observada nessa perífrase.

Palavras-chave: aspecto verbal; acionalidade; perífrase; semântica; sintaxe.

Introduction

Differently from English, Portuguese and Spanish have a particular verbal periphrasis, namely a *perfective* progressive periphrasis (PPP), illustrated in examples (1), in contrast with the much more common *imperfective* progressive periphrasis (IPP), in (2):[1]

(1)   a. João esteve correndo. – Portuguese
        b. Juan estuvo corriendo. – Spanish

(2)   a. João estava correndo. – Portuguese
        b. Juan estaba corriendo. – Spanish

(3)   John was running.

The main difference between these two periphrases is the auxiliary verb which can be perfective ('esteve', 'estuvo') or imperfective ('estava', 'estaba'). Note that the English translation for both cases is the same (cf. (3)).

---

[1] In this paper, the first examples (i.e., a.) will always be from Brazilian Portuguese and the second examples (i.e., b.) will be from Argentinian Spanish.

The aim of this paper is to present a contrastive semantic analysis for the PPP, comparing Brazilian Portuguese (BrP) and Argentinian Spanish (AS) data. In order to do that, we focus on two concerns. In the first place, we analyze the aspectual meaning of this periphrasis. Since it is composed of imperfective morphology (realized in the gerund form) and perfective morphology (realized in the auxiliary), one of the main questions of this paper is whether this periphrasis conveys perfective or imperfective meaning. After applying several tests, we conclude that it is not clear the aspectual value of the PPP: while some tests show its perfective meaning, in other ones the meaning expressed seems to be imperfective.

In the second place, and considering the morphological similarity between the PPP and the IPP, we study the meanings these periphrases have when combined with Aktionsart classes (activities, achievements, accomplishments, states, and semelfactives). The meanings resulting from these combinations (in particular, from the combination of the PPP and the IPP with telic predicates) allow us to make some observations about their semantic similarities and differences: while they both (IPP and PPP) behave equally in expressing durative and homogeneous events, just the PPP allows iterative readings.

Regarding these observations, we propose a compositional analysis of the PPP, in which the gerund form expresses progressive meaning and gives rise to durative and homogeneous events and the perfective morphology in the auxiliary expresses a perfective meaning that allows for iterative readings. This model not only can explain why the PPP displays perfective and imperfective meaning, but it can also account for the similarities and differences observed between the PPP and the IPP. In our proposal, durative and homogeneous meaning present in both periphrases is due to progressive meaning in gerund form, while iterative meaning, allowed just in the PPP, is due to the perfective meaning present in the auxiliary's perfective morphology.

This paper is organized as follows. In the first section, we investigate the aspectual status of the PPP – is it perfective or imperfective? Our analysis is based on four main linguistic tests, namely: (i) interrupting an event in the PPP; (ii) closed temporal intervals and the PPP; (iii) temporal progression; and (iv) the culmination of the event. In the second section, we show the interpretations that result from combining the PPP with the different aspectual classes. In both sections, we deal with BrP and

AS data.[2] In the third section, we discuss the similarities and differences between the IPP and the PPP in the two languages investigated, and in the fourth section we summarize the different and similar interpretations of the PPP in BrP and AS. Finally, in the fifth section we propose a semantic analysis for both periphrases, focusing on the PPP. In the Conclusion, we discuss some open questions and our results.

1 What does it take to be perfective?

As we mention in the Introduction, the PPP contains an auxiliary verb in the perfective form and a main verb in the progressive form (i.e., the gerundive form), normally associated with the imperfective aspect. Given this configuration, it could be asked whether the PPP is perfective or imperfective. In other words, what is the (grammatical) aspect resulting from combining a perfective auxiliary with a progressive main verb?[3]

In order to answer this question, we need to determine what should be understood by "perfective" and "imperfective" aspects. A common assumption in the literature is the one based on Klein's (1994) proposal, according to which the perfective aspect involves the time of the event being included in the topic time, and the imperfective aspect involves the topic time being included in the event time. One way of formally capturing these ideas can be found in Bohnemeyer (2014), which presents the formulas below, in which P is a variable for event predicates, $\tau(e)$ represents the event time (i.e., the duration of the event),

---

[2] As for the data presented in this paper, it is important to make some comments. All the examples presented in this paper, as well as the readings we discuss, represent our own intuition. However, since in some cases the readings we point out are not easy to get, we ask different linguists and non-linguists for several semantic intuitions.

[3] Squartini (1998) also investigates the aspectual behaviour of the PPP, given the coexistence of two apparently incompatible aspectual values (perfective and imperfective) in the periphrasis. However, he concludes that the periphrasis is perfective. The progressive information actually affects the actionality of the event, imposing restrictions related to durativity. Rather than an interaction between perfectivity and imperfectivity, the periphrasis would show perfective aspect and a durative actionality value. In this paper, even though we examine the aspectual value shown by the PPP, we also present a systematic comparison between the behaviour of the PPP and the IPP when combined with the aspectual classes. Thus, we explore the different interpretations each one gives rise to in BrP as well as in AS.

t_T represents topic time, and *g* represents the variable assignment function parameter with respect to a model *M*:

(4) $[[PF]]^{M,g} = \lambda P \exists e[\tau(e) \subseteq t_T \wedge P(e)]$

(5) $[[IMPF]]^{M,g} = \lambda P \exists e \ [t_T \subseteq \tau(e) \wedge P(e)]$

The intuition behind (4) is that a perfective event does not evolve past a certain topic time, and the imperfective, as stated in (5), does just the opposite, because an imperfective (ideally) evolves beyond a certain topic time. The examples in (6) and (7) illustrate these points, respectively. While in (6) the event of John painting the picture is included in the topic time (it is presented as closed at a certain topic time), in (7) the event continues beyond the topic time.

(6)   a. João pintou o quadro.
        b. Juan pintó el cuadro.
        John paint $_{.3.Person.Perf}$ the picture.

(7)   a. João estava pintando/pintava o quadro.
        b. Juan estaba pintando/pintaba el cuadro.
        John be $_{.3.Person.Imperf}$ painting/ paint $_{.3.Person.Imperf}$ the picture.

However, to show that the PPP is perfective or imperfective, it is important to go beyond these definitions and investigate their consequences. Therefore, aligned with the definitions in (4) and (5), we use several tests, already employed in the relevant literature (DOWTY, 1979; SQUARTINI, 1998), in order to analyze the perfective meaning.

(i)   interruption of the event – combined with "when" clauses, imperfectives result in an interpretation in which the event introduced by the "when" clause occurs within the temporal interval of the imperfective event, but that is not the case with perfective events (BONOMI, 1997);

(ii)   closed interval adverbials – perfectives can naturally combine with closed time intervals, such as 'o dia todo'/ 'todo el día' (*the whole day*), but not imperfectives (Squartini, 1998);

(iii)   temporal progression/succession of events – usually, concatenated perfective events are interpreted in the order of their appearance, whereas imperfective events do not usually impose any temporal ordering (SQUARTINI, 1998);

(iv)   the implied culmination of the event– when an accomplishment is in the perfective, it is implied that the event has culminated, whereas when we take an accomplishment in the imperfective this is not implied (DOWTY, 1979).

In sections 1.1 to 1.4 we will explore these tests using data from BrP and AS, contrasting PPP and IPP, which is by default imperfective. In section 1.5 we present an interim summary of our conclusions.

1.1 Interrupting an event in the PPP

As we can see in (8), only imperfective forms, synthetic or periphrastic, give rise to situations where the event described by the predicate can be interrupted by the event introduced by the "when" clause (i.e., Maria arrived while João/Juan was swimming). In contrast, when the eventuality is expressed by a perfective form (9), this is not possible.

(8)   a. João nadava/estava nadando quando Maria chegou.

      b. Juan nadaba/estaba nadando cuando María llegó.

      John swim$_{.3.Person.Imperf}$/be$_{.3.Person.Imperf}$ swimming when Mary arrived.

(9)   a. ?João nadou quando Maria chegou.

      b. ?Juan nadó cuando María llegó.

      John swim$_{.3.Person.Perf}$ when Mary arrived.

The sentence in (9) is hard to accept. However, if we accept it, we can claim that it can only mean that the event of John swimming immediately succeeds (or precedes) the event of Mary arriving. That is to say, it can never mean that the arriving of Mary occurs within (the duration of) John's swimming event.

If we consider the meaning of perfective and imperfective that we have presented above, data (8-9) easily follow. Given that in the perfective meaning the time of the event is included in a topic time and the event is presented as concluded (or bounded), the eventuality is not available for being interrupted.

If PPP had an imperfective meaning we would expect the same behaviour we have observed in imperfective examples (8) and in (10), below. However, this is not the case, as the sentences in (11) show:

(10)   a. Ontem, João estava pintando o quadro quando Pedro chegou.

      b. Ayer, Juan estaba pintando el cuadro cuando Pedro llegó.

      Yesterday, John be$_{.3.Person.Imperf}$ painting the picture when Pedro arrived.

(11)　　a. ?Ontem, João esteve pintando o quadro quando Pedro chegou.

　　　　b. ?Ayer, Juan　estuvo pintando el cuadro cuando Pedro llegó.

　　　　Yesterday, John be $_{.3.Person.Perf}$ painting the picture when Pedro arrived

　　　　Sentences in (11) are really odd, and the only interpretation available for cases like (11) – if there is any – is the one in which the event of painting a picture immediately precedes (or succeeds) the event of Pedro arriving – both in BrP and in AS. In other words, according to this test the PPP and perfective forms behave similarly.

1.2 Closed temporal intervals and the PPP

　　　　The PPP can combine with durational adverbials, whose function is to delimit the time in which an event takes/took place. As it is shown in the examples below, the periphrasis occurs naturally with "durante x tempo" and "durante x tiempo" (12), with "o dia todo" and "todo el día" (13), or with "até x" and "hasta x" (14).

(12)　　a. Ontem, João esteve trabalhando *durante seis horas*.

　　　　b. Ayer, Juan estuvo trabajando *durante seis horas*.

　　　　Yesterday, John be $_{.3.Person.Perf}$ working for six hours.

(13)　　a. Ontem, João esteve trabalhando *o dia todo*.

　　　　b. Ayer, Juan estuvo trabajando *todo el día*.

　　　　Yesterday, John be $_{.3.Person.Perf}$ working the day whole (the whole day).

(14)　　a. Ontem, João esteve trabalhando *até às sete*.

　　　　b. Ayer, Juan estuvo trabajando *hasta las siete*.

　　　　Yesterday, John be $_{.3.Person.Perf}$ working until seven.

　　　　Delimiting adverbials introduce a closed temporal interval and, as Squartini (1998) argues, the compatibility with these durational phrases is also a test for identifying perfectivity in a verbal form. As we can see in the next examples, establishing a delimited temporal interval where the event takes place is consistent with the perfective value (15). However, it is inconsistent with the imperfective, which rejects these durational adverbials (16) unless some other information is provided, such as a larger context in which the imperfective event can be anchored.

(15)   a. João correu durante duas horas.

       b. Juan corrió durante dos horas.

       John run$_{.3.Person.Perf}$ for two hours.

(16)   a. #João corria/estava correndo durante duas horas.

       b. #Juan corría/estaba corriendo durante dos horas.[4]

       John run$_{.3.Person.Imperf}$/ be$_{.3.Person.Imperf}$ for two hours.

As exhibited, the PPP can be combined with delimited adverbials (17), while the IPP cannot (18). Due to that contrast of acceptability, we can affirm that, as the IPP is imperfective, the PPP shows a perfective value also with respect to this test.

(17)   a. João esteve trabalhando durante seis horas.

       b. Juan estuvo trabajando durante seis horas.

       John be$_{.3.Person.Perf}$ working for six hours.

(18)   a. #João estava trabalhando durante seis horas.

       b. #Juan estaba trabajando durante seis horas.

       John be$_{.3.Person.Imperf}$ working for six hours.

1.3 Temporal progression

It is a well-known fact that the perfective moves the flux of a narrative forward, whereas the imperfective is responsible for description and background (cf. KAMP; ROHER, 1983). This difference appears in contexts in which there is a temporally ordered sequence of events (SQUARTINI, 1998), as exemplified in (19):

(19)   a. João conversou com a Maria, jantou e pensou sobre o seu dia seguinte.

       b. Juan conversó con María, cenó y pensó sobre su próximo día.

       John talk$_{.3.Person.Perf}$ to Mary, have$_{.3.Person.Perf}$ dinner, and think$_{.3.Person.Perf}$ about the next day.

       'John talked to Maria, had dinner and thought about his next day'

---

[4] The symbol "#" indicates that the sentence is pragmatically anomalous. This means that (16) and (18), below, are not acceptable "out of the blue", they need a bigger context, such as "Last year, …", which is not necessary for the perfective forms.

The events in (19), expressed by the perfective forms *conversou/ conversó*, *jantou/cenó* and *pensou/pensó*, are interpreted as succeeding one another in time, whereas the imperfective forms of the same verbs in (20) denote events which are taken to be ongoing simultaneously. That is to say, events in imperfective are not required to be concatenated.

(20)   a. João estava conversando com a Maria, jantando e pensando no seu dia seguinte.

         b. Juan estaba conversando con María, cenando y pensando sobre su próximo día.

         John be$_{.3.Person.Imperf}$ talking to Mary, be$_{.3.Person.Imperf}$ having dinner, and be$_{.3.Person.Imperf}$ thinking about the next day.

         'João was talking to Maria, having dinner and thinking about his next day'

Following the same reasoning of the other tests, if the PPP is perfective, we expect it to behave as the perfectives in (19). However, this is not the case. Sentence (21) is not natural, and if acceptable it does not convey any order among the events:

(21)   a. ? João esteve chegando em casa, (esteve) conversando com Maria, (esteve) jantando e (esteve) pensando no seu dia seguinte.

         b. ? Juan estuvo llegando a casa, (estuvo) conversando con María, (estuvo) cenando y (estuvo) pensando en su próximo día.

         John be$_{.3.Person.Perf}$ arriving home, be$_{.3.Person.Perf}$ talking to Mary, be$_{.3.Person.Perf}$ having dinner, and be$_{.3.Person.Perf}$ thinking about the next day.

1.4 The culmination of the event

We can find another difference between perfective and imperfective when these forms are combined with accomplishments.[5] When the predicate is in the perfective form, as in (22), the implication[6]

---

[5] In section 2.1 we investigate in more detail the combination of telic events with imperfective meaning.

[6] We prefer to use a more neutral form such as "implication" and "implies" because according to some (ALTSHULER, 2013; BASSO, 2007; PIRES DE OLIVEIRA; BASSO, 2010, a.o.) the interpretation that the event is finished which result from combining a telic event with (past) perfective aspect is not an entailment. Since the nature of this interpretation (if it is an implicature or an entailment) is not particularly important here, we will remain agnostic. What is important for us is whether the PPP and the perfective behave similarly.

is that the event has culminated, that is, the picture has been finished. In turn, when someone states (23) it is not implied that the event has culminated. That is to say, whereas (22) implies (24), (23) does not.

(22) a. O João pintou o quadro.
      b. Juan pintó el cuadro.
      John paint$_{.3.Person.Perf}$ the picture.

(23) a. O João pintava/estava pintando o quadro.
      b. Juan pintaba/estaba pintando el cuadro.
      John paint$_{.3.Person.Imperf}$/ be.$_{.3.Person.Imperf}$ painting the picture.

(24) a. O quadro está pintado/terminado.
      b. El cuadro está pintado/terminado.
      The picture is painted/finished.

In this sense, if PPP had perfective meaning, we would expect it to behave as (22), that is, to imply the culmination of the event. However, this is not the case.

When someone utters (25), the culmination of the event is not implied. In other words, it could be the case (and it is, in fact, the main interpretation that we have) that John had been painting the picture for a while and had stopped doing it without finishing it.

(25) a. O João esteve pintando o quadro.
      b. Juan estuvo pintando el cuadro.
      John be$_{.3.Person.Perf}$ painting the picture

This point can be further stressed with the use of, for instance, "mas não terminou"/"pero no lo terminó" ("but did no finished it") combined with the examples (22), (25), and also (26), with the IPP:

(22') a. # O João pintou o quadro, mas não terminou.
       b. # Juan pintó el cuadro, pero no lo terminó.
       John paint.$_{3.Person.Perf}$ the picture, but did no finished it.

(25') a. O João esteve pintando o quadro, mas não terminou.
       b. Juan estuvo pintando el cuadro, pero no terminó.
       John be$_{.3.Person.Perf}$ painting the picture, but did no finished it

(26)   a. O João estava pintando o quadro, mas não terminou.
       b. Juan estaba pintando el cuadro, pero no ha terminado.
       John be $_{3.Person.Imperf}$ painting the picture, but did no finished it

This point is somewhat related to what we saw in 1.1, but now the interruption has to do with reaching the *telos* of a telic event. And in this case, the contrast between (22') and (25') shows that the PPP and the perfective do not behave similarly since the *telos* of an accomplishment is not implied to be reached in the case of (25'), which is similar to (26). Let us summarize what we have found so far.

1.5 Interim summary

To summarize, on the one hand, the PPP behaves like the perfective in two respects: (i) an event in the PPP cannot be interrupted by another event, and (ii) the PPP does allow the combination with a durational adverbial introducing a closed temporal interval. On the other hand, it shows a non-perfective behavior regarding two senses: (i) the perfective, with coordinated events, does not convey any order among the events in contexts of temporally ordered sequences; however, the PPP does not move the narrative forward, and (ii) while the perfective implies the culmination of the event (that the *telos* was reached), the PPP does not.

This conclusion is the same for BrP and AS data, but it is not conclusive regarding the aspectual meaning of the PPP, since it sometimes seems to be perfective and sometimes imperfective. In the next section, we will explore the interpretation which results from the combination of the PPP with events from the different Vendlerian classes. This analysis will help us understand the behavior of the PPP, especially with telic events (an important feature for the test in 1.4), and also its differences with respect to the IPP.

2 PPP and actionality

In this section we analyze the behavior of the PPP when combined with different kinds of events. By studying the combination between PPP, IPP and events from different aspectual classes we will be able to reach some partial conclusions about the meaning of these periphrases.

We follow Vendler's famous classification of events, according to which there are four classes which differ in actional values, characterized by features such as telicity (i.e., whether a predicate has a culmination point), duration (i.e., whether a predicate holds in time) and dynamicity (i.e., whether a predicate involves changes, in contrast to a state). These classes are: states, activities, accomplishments and achievements. The literature also recognizes a fifth class, the so called semelfactives, which are atelic and non-durative events.[7] The table 1, adapted from Smith (1991, p. 20), shows these classes according to some relevant semantic features.

TABLE 1 – Types of events

	Telic (culmination point)	durative (holds in time)	Dynamic (involves change)
activities	–	+	+
states	–[8]	+	–
semelfactives	–	–	+
achievements	+	–	+
accomplishments	+	+	+

Source: Authors

In section 2.1, we will analyze telic predicates (namely, achievements and accomplishments) and in section 2.2, atelic predicates (namely, activities, states, and semelfactives).

2.1 PPP with telic predicates

As we have said before, telic predicates present a culmination point, that is to say, among other characteristics, they cannot go on

---

[7] It is widely agreed that there is also a class of "degree achievement", which are events that involve a scalar development, such as "dry", "grow", "fatten". In this paper we will not consider degree achievements, but the conclusions we present can be extended to this class of events as well.

[8] It is worth noting that, although the [Telic] feature is defined as negative for states in the table above, the author mentions that it is an irrelevant specification for eventualities [-dynamic].

indefinitely. Even though achievements and accomplishments both share the telic feature, they constitute different classes because of another semantic feature: their duration. Accomplishments are durative, whereas achievements have no temporal structure (i.e., they have no duration).

Given this difference, literature concerning IPP has claimed that these predicates behave differently when combined with this periphrasis: while accomplishments in IPP have a progressive reading according to which their *telos* is not reached (cf. (27)), achievements have a "preparatory phase" reading (cf. (28)). The same kinds of interpretation are obtained in BrP and AS:

(27)   a. O João estava correndo um quilômetro (mas não conseguiu terminar).

       b. Juan estaba corriendo un kilómetro (pero finalmente no llegó).

       John be $_{3.Person.Imperf}$ running a mile (but he didn't do it).

(28)   a. O João estava chegando ao trabalho.

       b. Juan estaba llegando al trabajo.

       John be $_{3.Person.Imperf}$ arriving at work.

Sentences such as (27), as expected, have a progressive reading, and in these cases, we cannot claim that the *telos* was reached, as it is clear by the information presented in the adjunct. As for data such as (28), these sentences do not describe the event denoted by the predicate but all kinds of previous events connected with the event described by the predicate (for instance, John could be about to cross the entrance, or about to park his car).

Regarding the PPP, accomplishments and achievements also behave in a different way when combined with this periphrasis. However, these predicates in PPP obtain different readings and interestingly these readings are unlike the ones we have observed when combined with IPP. This is another piece of evidence that shows that PPP and non-periphrastic perfectives have differences in meaning, despite some similarities.

Let us begin with accomplishments. As well as with IPP, accomplishments in PPP seem to denote situations in which the *telos* is not reached. For instance, if someone says (29) or (30), we cannot conclude that João/Juan has actually reached the pharmacy or finished preparing lunch:

(29)　a. João esteve correndo até a farmácia. –/–> João correu até a farmácia.
　　　　b. Juan estuvo corriendo hasta la farmacia. –/–>Juan corrió hasta la farmacia.
　　　　John be $_{.3.Person.Perf}$ running to the drugstore.

(30)　a. João esteve preparando o almoço. –/–>João preparou o almoço.
　　　　b. Juan estuvo preparando el almuerzo. –/–> Juan preparó el almuerzo.
　　　　John be $_{.3.Person.Perf}$ preparing lunch.

　　　In addition, they accept continuations that emphasize the non-culmination of the event (such as *but he/she didn't P*).

(31)　a. João esteve correndo até a farmácia (mas não chegou).
　　　　b. Juan estuvo corriendo hasta la farmacia (pero no llegó).
　　　　John be $_{.3.Person.Perf}$ running to the drugstore (but he did not get there).

(32)　a. João esteve preparando o almoço (mas não terminou).
　　　　b. Juan estuvo preparando el almuerzo (pero no terminó).
　　　　John be $_{.3.Person.Perf}$ preparing lunch, but he did not finish it.

　　　Finally, PPP does not allow temporal phrases such as "in x time". Since "in x time" presupposes that the *telos* has been reached (BASSO, 2007; BERGAMINI-PEREZ; BASSO, 2016) and since accomplishments in PPP denote situations where the *telos* is not necessarily reached, combining these predicates with such temporal phrases is not allowed:

(33)　a. ?João esteve correndo até a farmácia em dez minutos.
　　　　b. ?Juan estuvo corriendo hasta la farmacia en diez minutos.
　　　　John be $_{.3.Person.Perf}$ running to the drugstore in ten minutes.

(34)　a. ?João esteve preparando o almoço em dez minutos.
　　　　b. ?Juan estuvo preparando el almuerzo en diez minutos.
　　　　John be $_{.3.Person.Perf}$ preparing lunch in ten minutes.

　　　It is important to mention that both sentences are acceptable in BrP (but not in AS) if one considers not an episodic event but a capacity that João used to have. For instance, for some time in his life, João was able to run to the drugstore in 10 minutes, but he is no longer capable of doing that (this interpretation is made more salient if one uses the adverb 'já'). That is, sentences (33) and (34) are acceptable just in case these

events take place more than once in the past. However, regarding their episodic meaning, neither (33) nor (34) are well construed.

     Data such as (29-34) show that accomplishments in PPP have a similar meaning with what we find in accomplishments in IPP: in both cases the *telos* of the event is not guaranteed to be reached.[9] Therefore, we can conclude that PPP and IPP have the effect of implying that the *telos* of telic events is not reached. This is particularly interesting for the PPP, since it is usually assumed in the literature that telic events in the perfective entail that the *telos* is reached.[10] This is the reason why the perfective is odd when combined with the phrase "and he finally finished it" that seems to be redundant.

(35)   a. ?João pintou um retrato em vinte minutos e finalmente o terminou.

         b. ?Juan pintó un retrato en veinte minutos y finalmente lo terminó.

       John paint$_{3.Person.Perf}$ a portrait in twenty minutes and he finally finished it.

     In contrast, the oddness of (36) is due to the combination of the temporal phrase "in twenty minutes" and the fact that PPP implies the non-culmination of the event, as observed in examples (33-34).

(36)   a. ?João esteve pintando um retrato em vinte minutos e finalmente o terminou.

         b. ?Juan estuvo pintando un retrato en veinte minutos y finalmente lo terminó.

       John be$_{3.Person.Perf}$ painting a portrait in twenty minutes and he finally finished it.

---

[9] Interestingly, there seems to be some differences between the meaning of accomplishments in PPP and in IPP. In AS a sentence such as "La semana pasada, Juan estuvo armando un rompecabezas" ('Last week, John be$_{3PersonPerf}$ making a puzzle') can be interpreted as different events of making (and finishing) a puzzle (preferably, the same puzzle). In AS, this reading is not available with IPP "La semana pasada, Juan estaba armando un rompecabezas" ('Last week, John be$_{3PersonImperf}$ making a puzzle'). As for BrP neither PPP nor IPP – "Na semana passada, João esteve montando um quebra-cabeça" ('Last week, John be$_{3PersonPerf}$ making a puzzle') and "Na semana passada, João estava montando um quebra-cabeça" ('Last week, John be$_{3PersonImperf}$ making a puzzle') – give rise to the mentioned reading. This difference will be revised in more detail in sections 3 and 4. On the other hand, with the same sentence, both the PPP and the IPP in AS as well as in BrP can trigger a reading where there is a non-continuous event of making the same puzzle. We can have an event of P fragmented in different scenes, and they are all temporally located in the interval of one week.

[10] Basso (2007) is an exception and calls the configuration in which a perfective telic event has not reached its telos a case of "detelicization". We will turn to this topic later.

At this point, it is worth noting that this effect of not reaching the *telos* does not seem to be similar to the ones produced in other contexts, such as the temporal phrase "for x time" when combined with perfective events, as in (37). It has been said that the "for x time" phrase has also the effect of detelicizing the perfective telic event it combines with. Since this adverbial only measures the duration of the event, its presence can pragmatically lead to the conclusion that the event has not reached its *telos*. But given that this is an implicature (cf. BASSO, 2007; PIRES DE OLIVEIRA; BASSO, 2010), the continuation with "and he finally finished it" is not semantically prohibited. In this respect, both the perfective and the PPP behave similarly:

(37)   a. João pintou um retrato por vinte minutos e finalmente o terminou.
       b. Juan pintó un retrato por veinte minutos y finalmente lo terminó.
       John paint$_{.3.Person.Perf}$ a portrait and he finally finished

(38)   a. João esteve pintando um retrato por vinte minutos e finalmente o terminou.
       b. Juan estuvo pintando un retrato por veinte minutos y finalmente lo terminó.
       John be$_{.3.Person.Perf}$ painting a portrait for twenty minutes and he finally finished it.

Hence, based on the data presented above, we can conclude that accomplishments in PPP and IPP give rise to progressive, durative, non-telic readings, given that they allow for adjuncts that emphasizes the non-culmination of the events.

Let us consider now achievements, which are telic non-durative events (that is, they have no internal temporal structure). As mentioned before, achievements in IPP not only denote situations where the *telos* is not reached but also describe the preparatory phase of the event denoted by the predicate (i.e., all the activities directly related to the event of winning or waking up).

(39)   a. João estava ganhando a corrida.
       b. Juan estaba ganando la carrera.
       John be$_{.3.Person.Imperf}$ winning the race.

(40)   a. João estava acordando.
       b. Juan estaba despertándose.
       John be$_{.3.Person.Imperf}$ waking up.

As observed by Rothstein (2004), the reason why achievements in IPP denote a preparatory phase is because they describe events without internal structure. According to her account, given that the progressive operator[11] combines with predicates containing stages (or internal structure), when it is combined with achievements the result is the preparatory phase reading. Interestingly, achievements in PPP differ from achievements in IPP in that they can describe two kinds of situations depending on lexical information of the verb: i, one in which there is a repetition of events of P (iterative reading), as in (41); ii. another one in which previous events anteceding P are described (preparatory phase reading), as in (42).

(41) a. João esteve acordando por toda a manhã.[12]
      b. Juan estuvo despertándose toda la mañana.
      John be$_{.3.Person.Perf}$ waking up (the whole morning).

(42) a. João esteve ganhando a corrida.
      b. Juan estuvo ganando la carrera.
      John be$_{.3.Person.Perf}$ winning the race.

The main difference between situations described in (41) and (42) is the fact that only in (41) we can conclude that the event of P took place (multiple times). In (42), in contrast, the event does not need to reach the *telos* (i.e., John could have lost the race after all).

---

[11] Rothstein (2004) follows Landman (1992) in claiming that the progressive operator requires predicates which have stages. More specifically, he claims that an assertion of the form x is VP-*ing* is true iff there is an event *e* going on which is a stage of an event *e'*, where *e'* is in the denotation of the VP. An event *e* is a stage of event *e'* if it develops into *e'*; in this case *e'* is a continuation of *e*. Therefore, for a sentence in the progressive to be true it must be the case that its predicate has events *e* which are stages developing into *e'*. For instance, in order to *John was painting a portrait* to be true we expect *paint a portrait* to have stages, that is, we expect events *e* of *paint a portrait* developing into the event *e'* of *paint a portrait*.

[12] Iterative meaning in sentence (41) can be difficult to get in BrP. However, this meaning is accessible if we imagine a context where João was sleeping but he was interrupted in several moments by different situations. In that case, João has been waking up the whole morning in different moments.

(43)   a. João esteve acordando por toda a manhã $^{??}$(mas não acordou).
        b. Juan estuvo despertándose toda la mañana $^{??}$(pero no se despertó).
        John be $_{.3.Person.Perf}$ waking up the whole morning $^{??}$(but he didn't wake up).

(44)   a. João esteve ganhando a corrida, mas no fim ele não ganhou.
        b. Juan estuvo ganando la carrera, pero finalmente no la ganó.
        John be $_{.3.Person.Perf}$ winning the race, but finally he didn't won.

    We also can detect this in the entailments in (45) and (46).

(45)   a. João esteve acordando por toda a manhã. —> ele acordou
        b. Juan estuvo despertándose toda la mañana —> se despertó.
        John be $_{.3.Person.Perf}$ waking up the whole morning —> he woke up.

(46)   a. João esteve ganhando a corrida por 20 minutos –/–> ele ganhou a corrida
        b. Juan estuvo ganando la carrera por 20 minutos –/–>la ganó.
        John be $_{.3.Person.Perf}$winning the race for 20 minutes –/–> he won the race.

    Given the data above, we make two observations. On the one hand, IPP as well as PPP force achievements to describe durative eventualities (either they describe a preparatory phase or an iterative event). On the other hand, examples (41-46) show that PPP differs from IPP in giving rise to an iterative meaning when it combines with some kinds of achievements.[13] These observations suggest two things. Firstly, that the progressive meaning triggering the durative reading could be expressed by the gerund form, which is present in both periphrases. Secondly, that the difference between the IPP and the PPP (i.e., the fact that only the PPP allows for the preparatory phase reading and for the iterative reading) is due to the aspectual value of the auxiliary form. In this sense, while the duration in both cases would be given by "-ndo" ("-ing") form, the possibility of expressing the iterative reading would depend on the perfective auxiliary 'esteve/estuvo'.

---

[13] As we have already noticed, the PPP gives rise to iterative readings when combined with certain kind of predicates; particularly, achievement denoting a reversible change of state. In a durative situation, this property allows the iteration of the non-durative eventuality, producing the interpretation of a repetition of events. Predicates as "fechar a porta" / "cerrar la puerta" (close the door), "assustar-se" / "asustarse" (get frightened) are also examples that show this property and follow the same behavior.

To sum up, even if achievements in PPP and in IPP are alike in describing durative situations, they behave differently because of the readings they give rise to. Achievements in PPP can describe situations in which the event denoted by the predicate takes place more than just once. Since this interpretation is available only when they are combined with PPP (and not with IPP) it could be the case that this reading is possible because of the meaning of the periphrasis.

2.2 PPP with atelic predicates

Atelic events do not have a culmination point (i.e., a *telos*). One distinctive characteristic of these predicates is that they are homogeneous, that is, they are composed of parts that are considered identical. Among atelic events, we can find activities, semelfactives and states, being the main difference between them the fact that only the last ones are non-dynamic.

The literature on atelic events in English has shown that activities and semelfactives accept the IPP, while states reject it.[14]

(47)   John is running.

(48)   John is knocking the door.

(49)   a. *John is being tall.
        b. *John is hating apples.
        c. *John is knowing French.

In BrP and in AS, states behave in a different way. The IPP can combine with "transient" states (50) (similar to stage level predicates) but they are odd with permanent states (51) (similar to individual level predicates).[15]

(50)   a. João estava sendo bom.
        b. Juan estaba siendo bueno.
        John be$_{.3.Person.Imperf}$ being good.

---

[14] As pointed by and anonymous reviewer, to whom we thank, in some cases IPP with states are acceptable in English. Cf. Guimarães (2017).
[15] Basso and Ilari (2004) provides a deep investigation of progressive states in BrP.

(51) a. *João estava sendo alto.
      b. *Juan estaba siendo alto.
      John be $_{.3.Person.Imperf}$ being tall.

       When the IPP combines with a non-permanent state, the meaning
is almost like the one of activities: it denotes a situation where the
predicate takes place at intervals of time (and not at every instant of time).
In these cases, non-permanent states behave as non-agentive activities.
       In cases where the IPP is acceptable, namely, (50), the actionality
of the predicate does not suffer any kind of change: the sentence describes
a durative and atelic situation which holds in time. Non-permanent states
(behaving as activities) and states in PPP (cf., (52) and (53)) also keep
their basic aspectual meaning, given that they already are durative and
atelic.

(52) a. João esteve sendo bom.
      b. Juan estuvo siendo bueno.
      John be $_{.3.Person.Perf}$ being good.

(53) a. *João esteve sendo alto.
      b. *Juan estuvo siendo alto.
      John be $_{.3.Person.Perf}$ being tall.

       As for semelfactives, even though they are inherently instantaneous
(i.e., non-durative) and atelic predicates (SMITH, 1991; ROTHSTEIN,
2004), when they combine with certain operators (such as the progressive
one), they can describe atelic and durative situations in which there is
repetition. As we have seen before, when PPP combines with a telic
predicate, the *telos* does not seem to be reached. On the other hand, when
they combine with non- durative predicates, they give rise to durative
situations by iterating the predicate or by focusing on a preparatory phase.
Therefore, since activities, semelfactives and states can describe durative
and atelic eventualities, they are expected to conserve their aspectual
meaning. Hence, they accept durative temporal phrases (*for x time*) and
reject temporal phrases which demand a telos (*in x time*).

(54)   a. ?João esteve correndo em vinte minutos.   (activity)
       b. ?Juan estuvo corriendo en veinte minutos.
       John be $_{.3.Person.Perf}$ running in twenty minutes.

(55)   a. João esteve correndo durante/por vinte minutos.   (activity)
       b. Juan estuvo corriendo durante veinte minutos.
       John be $_{.3.Person.Perf}$ running for twenty minutes.

(56)   a. ?João esteve tossindo em 20 minutos.   (semelfactive)
       b. ?Juan estuvo tosiendo en 20 minutos.
       John be $_{.3.Person.Perf}$ coughing in twenty minutes.

(57)   a. João esteve tossindo durante/por vinte minutos.   (semelfactive)
       b. Juan estuvo tosiendo durante/por veinte minutos.
       John be $_{.3.Person.Perf}$ coughing for twenty minutes.

(58)   a. ?João esteve sendo bom em vinte minutos.   (non-permanent state)
       b. ?Juan estuvo siendo bueno en veinte minutos.
       John be $_{.3.Person.Perf}$ being good in twenty minutes.

(59)   a. João esteve sendo bom durante/por vinte minutos. (non-permanent state)
       b. Juan estuvo siendo bueno durante veinte minutos.
       John be $_{.3.Person.Perf}$ being good for twenty minutes.

   Furthermore, atelic predicates in PPP allow the following inferences, since they denote situations where the *telos* is not reached.

(60)   a. João esteve conversando com um médico → João conversou com um médico.
       b. Juan estuvo conversando con un doctor → Juan conversó con un doctor.
       John be $_{.3.Person.Perf}$ talking with a doctor → John talked with a doctor.

(61)   a. João esteve tossindo → João tossiu.
       b. Juan estuvo tosiendo → Juan tosió.
       John be $_{.3.Person.Perf}$ coughing → John coughed.

(62)   a. João esteve sendo bom → João foi bom.
       b. Juan estuvo siendo bueno→ Juan fue bueno.
       John be $_{.3.Person.Perf}$ being good → John was good.

To sum up, we can sketch the following conclusions. PPP seems to be sensitive to the three aspectual meanings presented in the introduction, that is, dynamicity, duration and telicity. First of all, as well as IPP, this periphrasis requires predicates with some degree of dynamicity. That is the reason why it cannot combine with permanent states. Secondly, it combines with durative predicates. If the predicate it combines with is a non-durative one (achievements or semelfactives, for instance), PPP forces an interpretation in which the situation described is durative, via repetition/iteration or a (durative) preparatory phase. Finally, when PPP combines with telic events, it does not imply that the *telos* is reached, and in this respect it differs from the perfective.

It seems that the PPP and the IPP are very similar, but it is important to note that they are not identical. In the next section, we explore in more detail the differences as well as the similarities between these two periphrases.

3 PPP versus IPP: similarities and differences

The aim of this section is to make a systematic comparison of both periphrases in order to find out the similarities but particularly the differences in meaning they present.

As it has been shown in previous sections, PPP and IPP behave alike in certain contexts. First of all, in both cases when the periphrases are combined with telic predicates, the culmination of the event is not implied. That is to say, the interpretation that the *telos* was reached only arises with the non-periphrastic perfective. Both the PPP and the IPP give rise to a reading where the event could be culminated, but the opposite situation is implied. With respect to the examples below, only in (63) we could affirm that the room is arranged, meanwhile in (64), (65) and (66) the interpretation is that it is not arranged, even though this possibility is also allowed.

(63)   a. João arrumou o quarto ontem.

b. Juan ordenó la habitación ayer.

John arrange$_{.3.Person.Perf}$ the room yesterday.

(64)   a. João arrumava o quarto ontem.[16]
          b. Juan ordenaba la habitación ayer.
          John arrange.3.Person.Imperf the room yesterday.

(65)   a. João estava arrumando o quarto ontem.
          b. Juan estaba ordenando la habitación ayer.
          John be.3.Person.Imperf arranging the room yesterday.

(66)   a. João esteve arrumando o quarto ontem.
          b. Juan estuvo ordenando la habitación ayer.
          John be.3.Person.Perf arranging the room yesterday.

That is the reason why PPP and IPP accept phrases that emphasize that the event has not actually culminated ("but s/he didn't P") and they reject temporal adjuncts that imply the culmination of the event ("in x time"). However, even though PPP has the same effect in implying the non-culmination of the event it combines with, it seems to conserve its perfective meaning since the event (with or without its *telos*) is presented as closed, i.e., as no longer being the case, no longer happening or occurring, as the test in 1.1 with "when" clauses shows.

Second, both periphrases do not move the flux of narrative forward. Hence, when a narrative presents events expressed by these periphrases, they can be overlapped, and they do not have a necessary relation of succession.

Third, the PPP as well as the IPP denote durative situations, and when they are combined with non-durative events (achievements or semelfactives), these periphrases trigger a durative reading, either a "preparatory phase" one or an iterative one. Even though they both describe durative situations, the readings available for each periphrasis are not the same.

---

[16] It is worth noting that the non-periphrastic imperfective in BrP can also have a modal value when combined with a punctual temporal adjunct, besides the imperfective interpretation (restricted to formal written contexts). In contrast to the IPP, which has a pure progressive meaning, a synthetic imperfective form as "João tomava um café agora" ("John have.3.Person.Imperf a coffee now") can also mean "John would have a coffee now". Thus, the sentence with the non-periphrastic imperfective form would have the same interpretation as "João tomaria um café agora". However, AS does not show such a contrast; the differences between the IPP and the synthetic imperfective form are mainly stylistic.

In what concerns the differences between these periphrases, we also already have shown some. The main superficial difference is related to the form of the auxiliary in each construction: while in the IPP the verb "estar" has an imperfective form, in the PPP it shows a perfective morphology. This aspectual contrast present in the auxiliary brings up a differentiated behavior that, we claim, is due to the fact that perfective aspect in the PPP presents the event as closed, whereas the imperfective aspect in IPP does not.

Firstly, unlike the IPP, an event in PPP cannot be interrupted by another event, as we can see in the contrast (67-68).

(67)   a. ? No exato momento em que vi Maria, ela esteve alcançando o pico da montanha.

        b. ? En el exacto momento en que vi a María, ella estuvo alcanzando la cima de la montaña.

In the exact moment I saw Mary, she be$_{.3.Person.Perf}$ reaching the top of the mountain.

(68)   a. No exato momento em que vi Maria, ela estava alcançando o pico da montanha.

        b. En el exacto momento en que vi a María, ella estaba alcanzando la cima de la montaña.

In the exact moment I saw Mary, she be$_{.3.Person.Imperf}$ reaching the top of the mountain.

Second, PPP allows for the combination with delimiting durational adverbs, which establish a closed temporal interval: either "durante x tempo" / "durante x tiempo", that has been presented before, or other kinds of adverbs that describe a delimited period of time.

(69)   a. #João estava pintando o quadro durante três horas.

        b. #Juan estaba pintando el cuadro durante tres horas.

        John be$_{.3.Person.Imperf}$ painting the picture for three hours.

(70)   a. João esteve pintando o quadro durante três horas.

        b. Juan estuvo pintando el cuadro durante tres horas.

        John be$_{.3.Person.Perf}$ painting the picture for three hours.

Third, the iterative meaning that arises with achievements in PPP is due to the same fact: since in the PPP the event is presented as closed,

but also as having duration, the only possibility is for the (individual, singular, or punctual) event to be repeated.

(71)   a. João esteve acordando por toda a manhã. —> ele acordou

        b. Juan estuvo despertándose toda la mañana —> se despertó.

        John be $_{.3.Person.Perf}$ waking up the whole morning —> he woke up.

Similarly, in AS, accomplishments in PPP can give rise to a reading where it expressed a situation of performing and finishing the same event (over and over) for a period of time.

(72)   a. Juan estuvo armando un rompecabezas la semana pasada.

        John be $_{.3.Person.Perf}$ doing a puzzle last week.

However, this is not allowed with the IPP. (73) can only have two kinds of meanings: (i) it can be the background of a main perfective predicate ('He was making a puzzle when…'); (ii) it can mean that the event of making (but not finishing) a puzzle holds in different moments of the period denoted by the temporal phrase. These two meanings are also present in BrP; thus, with respect to the IPP, they behave similarly.

(73)   a. Juan estaba armando un rompecabezas la semana pasada.

        John be $_{.3.Person.Imperf}$ making a puzzle last week.

We will come back to this difference between AS and BrP in the next section.

4 PPP and IPP in Argentina and in Brazil

In this section we focus on the differences found in the two languages regarding the interpretation of these periphrases. As it has been shown above, differences between BrP and AS are restricted to the PPP. More concretely, as we will see below, they concern the meaning obtained when the PPP combines with telic events.

Let us begin with the interpretation of accomplishments in PPP.

(74)   a. ?João esteve correndo até a farmácia em dez minutos.

        b. ?Juan estuvo corriendo hasta la farmacia en diez minutos.

        John be $_{.3.Person.Perf}$ running to the drugstore in ten minutes.

In BrP, a sentence like (74) became acceptable if taken to express a past ability that João had, in other words, if the event of "John running to the store in 10 minutes" is interpreted as a capacity that John used to have for some time in his life. This non-episodic interpretation is not allowed in AS. In fact, the only way to obtain this non-episodic interpretation in AS is with imperfective morphology on the main verb (i.e., without the periphrasis and the gerund):

(75)   a. Juan corría hasta la farmacia en diez minutos.

        John run$_{.3.Person.Imperf}$ to the drugstore in ten minutes

Another difference between BrP and AS regarding accomplishments in progressive periphrases has to do with the possibility of expressing a non-episodic event of doing/holding and finishing the eventuality expressed by the predicate. As observed above, the main reading of sentences such as (76) is the one in which it is not implied that the *telos* of the event is reached. That is, the one in which the event of John making a puzzle is not finished.

(76)   a. João esteve montando um quebra-cabeça na semana passada.

        b. Juan estuvo armando un rompecabezas la semana pasada.

        John be$_{.3.Person.Perf}$ doing a puzzle last week.

However, as observed in section 3, in AS there is another interpretation for a sentence such as (76.b) according to which John has actually made (and finished) the puzzle. For this interpretation to be obtained it is necessary for the event of making a puzzle to be more than one. That is to say, a sentence such as (76.b) can also mean that John made a puzzle over and over in a bounded period of time (i.e., last week). This interpretation is allowed in AS, but does not arise in BrP.

(77)   a. João estava montando um quebra-cabeça na semana passada.

        b. Juan estaba armando un rompecabezas la semana pasada.

        John be$_{.3.Person.Perf}$ making a puzzle last week.

In AS, (77.b.) could only denote two kinds of situations. Firstly, it can be a background; in this case, the IPP works as a frame for a main perfective predicate introduced by a "when clause" (*Last week, John was making a puzzle, when he realized his dog was missing*). Secondly,

it can mean a unique non-continuous event of making a puzzle (the same puzzle) that holds in different moments of the interval denoted by the temporal phrase; in this case, we have an event of P fragmented in different scenes, they all temporally located in the interval of one week. Thus, in AS, (75.b.) does not give rise to the reading of more than one event of making (and finishing) the puzzle. In this respect, BrP (77.a.) shows the same behavior.

        To sum up, the periphrases differ in BrP and AS in two respects, regarding their meaning when combined with accomplishments. Firstly, in BrP a sentence with an accomplishment in PPP and a temporal adjunct that demands the *telos* (as "em x tempo" / "en x tiempo") gives rise to an (even if hard to grasp) acceptable (past) habitual interpretation; in AS, however, this interpretation is not possible. Secondly, in AS the PPP can trigger the interpretation of more than one event of P, which does not arise with the IPP. In BrP, iterative interpretations with accomplishments are not allowed with the PPP.

        With all this data about the PPP in both languages, we propose a semantic analysis below.

5 A formal analysis

        In this section, we sketch a semantic analysis for the two periphrases, which we claim accounts for the interpretations that we presented above. In order to summarize the discussion presented so far, we repeat here the main readings our analysis should account for. Firstly, we should explain the fact that the imperfective periphrasis as well as the perfective periphrasis give rise to durative and "detelicized" events. As observed in section 2.1, when they are combined with punctual predicates, they give rise to preparatory phase or iterative readings (both of them durative events) and, when they are combined with accomplishments, they give rise to events whose *telos* is not reached. That is to say, our analysis should be able to propose a mechanism, available for the two periphrases, that could derive such readings. Secondly, we should explain the fact that only the perfective progressive periphrasis can give rise to iterative readings with achievements and some accomplishments, as observed in sections 2.1 and 3. That is, the analysis we sketch here should present a mechanism available in the perfective periphrasis – but not in the imperfective one – capable of deriving these iterative readings.

Considering these remarks, we propose a compositional analysis of the progressive periphrases according to which (i) the gerund form, realized in both periphrases, expresses an operator which is the responsible for "detelicizing" and making the event durative – roughly, the result will be a continuous or progressive interpretation, and (ii) the perfective operator in the auxiliary of the PPP is able to make the eventuality iterative. In the following we explain this analysis in more detail.

We claim that the gerund form expresses a semantic operator PROG (78) having the following denotation, as proposed by Rothstein (2004, p. 46-47):

(78) $-NDO(VP) \rightarrow \lambda e.PROG(e, \lambda e'.VP(e') \wedge Ag(e')=x)$.

(79) $|PROG(e,P)|_{w,g}=1$, iff $\exists e' \exists w':<e',w'> \in CON(g(e),w)$ and $|P|_{w',g(e')}=1$ where $CON(g(e),w)$ is the continuation branch of $g(e)$ in w.

In a simplified way, what (79) says is that, for the progressive to be true, there must be a stage *e'* of *e* in a world *w'* that is part of the event *e* in a world *w*; i.e., a progressive event is one which can develop in a bigger event of the same type.

Therefore, when the predicate combines with PROG (expressed by the gerund form) in both cases, PPP and IPP, PROG has two results: (i) it makes the event denoted by the predicate durative because it says that the event must contain stages *e'* of *e*, and (ii) it makes the event "detelicized" given that *e'* must be true in *w'* being *e* (the denotation of the predicate) evaluated in a world *w* which is not necessarily the same as *w'*.[17] In short, PROG results in events that have stages and its true-conditions focus on one stage holding in a world which is not necessarily the word where the denotation of P is evaluated.

---

[17] It is worth noting that the evaluation of *e* (the denotation of the predicate) in a different world from the world at which the stage *e'* is evaluated is what has allowed literature on the subject to avoid the imperfective paradox, noticed since Dowty (1979). If the stage *e'* were evaluated at the same word where the denotation of the predicate is, as proposed initially by Bennett and Partee (1978), the meaning of the progressive would be wrong for telic predicates, since it would have to be the case that the denotation of the predicate is true. That is to say, for *John reading the book* to be true, it would also be true *John read the book* (the denotation of P), but the truth of the denotation of a telic predicate implies that the *telos* is reached, something missing in the meaning of the progressive, since there is no necessity for the *telos* to be reached.

In consequence, being PROG the meaning expressed by the gerund, lets us explain why both periphrases have the same effect on telic predicates: if it takes an accomplishment, it describes a durative event whose *telos* is not (necessarily) reached; if it takes an achievement, it forces a durative temporal structure, via repetition or a preparatory phase, and does not guarantee that the *telos* is reached.

Regarding atelic events, semelfactives and activities do not behave equally. Since the former are instantaneous events, they behave as achievements in that the progressive operator forces a durative temporal structure, in this case only via repetition. As for activities, given that they are homogeneous and durative events, they already have stages. Therefore, their temporal structure does not suffer any change.

Let us now consider the meaning of the perfective auxiliary in order to derive the iterative readings. As presented in section 1, the perfective in the auxiliary is an operator PERF that says that the event has to be included in the topic time.

(80) $[[PF]]^{M,g} = \lambda P \, \exists e[\tau(e) \subseteq t_T \wedge P(e)]$

We claim that the instruction for these cases is the following: for a predicate in the perfective to be true, it must be the case that the event expressed by the predicate is included (i.e., presented as closed) *at least* once in the topic time. That is what allows explaining the two meanings available in AS in sentences such as (81): it can mean that the ongoing event of making a puzzle is included in the topic time (i.e., presented as closed but not necessarily finished) one time or more than one. The possibility of being included more than once is what explains AS iterative interpretation and BrP semelfactive interpretation.

(81)   a. João esteve montando um quebra-cabeça (algumas vezes) na semana passada.

    b. Juan estuvo armando un rompecabezas (una y otra vez) la semana pasada.

    John be$_{.3.Person.Perf}$ making a puzzle (over and over) last week.

As for the interpretation of achievements with the perfective operator, we claim that since the time span created by the PROG operator is bigger than the instantaneous event, the event time is included more than once in the topic time, giving rise to the iterative interpretation (when the "preparatory phase" interpretation is not available).

(82)   a. João esteve fechando a porta por toda a manhã.

   b. Juan estuvo cerrando la puerta toda la mañana.

   John be $_{.3.\text{Person.Perf}}$ closing the door (the whole morning).

   In contrast, given that the imperfective meaning states that the topic time must be included in the event time (83), it is not possible for sentences like (84-85) to denote an iterative event. In these cases, the ongoing event denoted by the predicate must evolve beyond a certain topic time.

(83) $[[\text{IMPF}]]^{M,g} = \lambda P \, \exists e \, [t_T \subseteq \tau(e) \land P(e)]$

(84)   a. João estava montando um quebra-cabeça.

   b. Juan estaba armando un rompecabezas.

   John be $_{.3.\text{Person.Imperf}}$ making a puzzle.

(85)   a. João estava fechando a porta.

   b. Juan estaba cerrando la puerta.

   John be $_{.3.\text{Person.Imperf}}$ closing the door.

   To sum up, while the homogeneous and durative structure is due to the progressive operator placed in the gerund form, the iterative reading available for the perfective periphrasis (but not for the imperfective one) depends on the meaning of PERF, which states that the event time should be included *at least* one time in the topic time ($\tau(e) \subseteq t_{T'}$).

   Concerning the syntax of these periphrases, we claim that the gerund form (as well as all non-finite forms) is a cluster of phrases that includes a defective TP, which is semantically null[18] but syntactically necessary in order to be bound to the TP$_1$ above it;[19] an AspP, which is

---

[18] Being semantically null is expressed by an identity function that takes a function and returns the same function.

[19] The presence of TP in constructions such as the ones studied in this paper could be discussed since this form does not seem to present information of that kind. We claim that its presence is needed because there are some instances of gerunds expressing a different time than the one expressed in the main predicate (i.e., "Estudando todas as noites, João pôde passar no exame"/"Estudiando todas las noches, Juan pudo aprobar el examen" ('Studing all nights, John could pass the exam')). We claim that when TP$_2$ is bound by TP$_1$ we have constructions where the gerund and the main predicate constitute the same predication, for instance, in cases of periphrases.

responsible for the imperfectivity (in the case of gerund); and, finally, the vP-VP domain where the lexical and descriptive content is. The progressive operator we presented in this paper is located in the head of AspP. Therefore, "-ndo" ("-ing") in ASP is a function that takes a $<s,t>$ and returns the sets of events of P that are ongoing event. That is, it specifies the domain of events.

(86)   Gerund form for "Juan armando rompecabeza"/"João montado quebra-cabeças"
        John making   puzzles

$$
\begin{array}{c}
TP_2 \\
\diagdown \\
T_2 \qquad AspP_2 \\
\diagdown \\
Asp_2 \qquad vP \\
\text{-ndo} \qquad \diagdown \\
DP \qquad\qquad VP \\
Juan \qquad\qquad \diagdown \\
V \qquad\qquad DP \\
arma\text{-} \qquad rompecabezas
\end{array}
$$
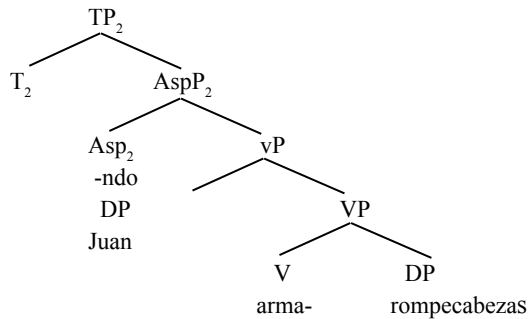
The auxiliary, in turn, is represented syntactically as a VP whose complement is a defective TP (it always takes a verbal phrase) and without a vP above it (there is no need to insert a subject). This prevents the auxiliary from having an argument structure. On the contrary, the auxiliary VP does have full TP and AspP, and it is in AspP that we found the denotation of perfective and imperfective presented in this paper. Semantically, the auxiliary VP takes a $<s,t>$ and returns the same type if the verb is a copulative one. That is to say, if the auxiliary has no lexical content (i.e., if it is a copula) the head of VP is an identity function.

(87) Auxiliary form

$$
\begin{array}{c}
TP_1 \\
\diagdown \\
AspP_1 \\
\diagdown \\
Asp_1 \qquad VP_1 \\
\text{-ba} \qquad \diagdown \\
V_1 \qquad TP_2 \\
esta\text{-}
\end{array}
$$
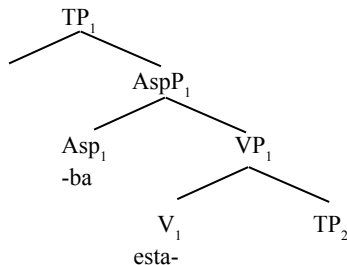
Therefore, the semantic derivation of a sentence such as (84) would be as follows:

(88)   a. João esteve montando um quebra-cabeça. ("montar um quebra-cabeça" = MQC)

b. Juan estuvo armando un rompecabezas.

John was making a puzzle.

$$\text{AspP}_1{}^{20}$$
$$\exists e[\tau(e) \subseteq t_T \wedge \text{PROG}(e, \lambda e'.\text{MQC}(e') \wedge \text{Ag}(e', J))]$$

Asp_1 VP_1

$\lambda P \exists e[\tau(e) \subseteq t_T \wedge P(e)]$ $\lambda e.\text{PROG}(e, \lambda e'.\ \text{MQC}(e') \wedge \text{Ag}(e', J))$

V_1 TP_2

$\lambda f_{<s,t>}.f_{<s,t>}$ $\lambda e.\text{PROG}(e, \lambda e'.\ \text{MQC}(e') \wedge \text{Ag}(e', J))$

T_2 AspP_2

$\lambda f_{<s,t>}.f_{<s,t>}$ $\lambda e.\text{PROG}(e, \lambda e'.\ \text{MQC}(e') \wedge \text{Ag}(e', J))$

Asp_2 vP

$\lambda e.\text{PROG}(e, \lambda e'.\text{VP}(e') \wedge \text{Ag}(e')=x)$ $\lambda e.[\ \text{MQC}(e) \wedge \text{Ag}(e, J)]$
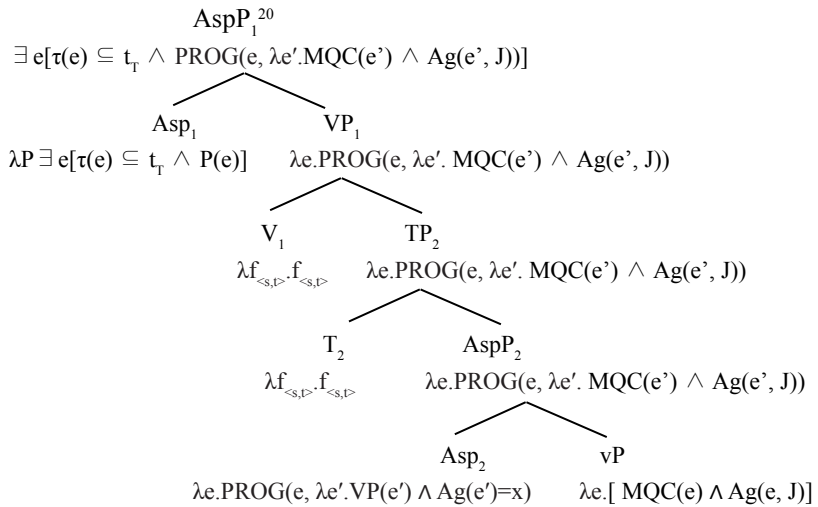
As we can see in (88), Asp_2 (i.e., the progressive operator expressed by –ndo) takes the vP (containing the VP), which is the event of making a puzzle, and returns the set of ongoing events of making a puzzle. Since T_2 and V_1 are semantically null, they express an identity function. Then, Asp_1 (i.e., the perfective operator expressed by the auxiliary) takes the set of ongoing events of making a puzzle, expressed by the VP_1, and returns that the event time of making a puzzle should be included at least once in the topic time. We can see this derivation below:

---

[20] It is worth mentioning that some parts of the representations for the semantic calculus are intentionally omitted, for the sake of simplicity.

(89)   a. $[[vP]] = \lambda e.[MQC(e) \wedge Ag(e, J)]$

b. $[[Asp_2]] = \lambda e.PROG(e, \lambda e'.VP(e') \wedge Ag(e')=x)$

c. $[[AspP_2]] = \lambda e.PROG(e, \lambda e'.VP(e') \wedge Ag(e')=x)(\lambda e.[MQC(e) \wedge Ag(e, J)])$
$= \lambda e.[PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))]$

(...)

d. $[[VP_1]] = \lambda e.[PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))]$

e. $[[Asp_1]]^{M,g} = \lambda P \exists e[\tau(e) \subseteq t_T \wedge P(e)]$

f. $[[AspP_1]] = \lambda P \exists e[\tau(e) \subseteq t_T \wedge P(e)] (\lambda e.[PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))])$
$= \exists e[\tau(e) \subseteq t_T \wedge PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))]$

As for the imperfective progressive periphrasis, the derivation is exactly like the one presented in (88), except for denotation of Asp_1, which takes the set of ongoing events of making a puzzle, expressed by the auxiliary in VP_1, and returns the meaning that states that the topic time should be included in the event time of making a puzzle.

(90)

$AspP_1$

$\exists e[t_T \subseteq \tau(e) \wedge PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))]$

Asp_1 VP_1

$\lambda P \exists e [t_T \subseteq \tau(e) \wedge P(e)]$ $\lambda e.PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))$

V_1 TP

$\lambda f_{<s,t>}.f_{<s,t>}$ $\lambda e.PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))$

T_2 $AspP_2$

$\lambda f_{<s,t>}.f_{<s,t>}$ $\lambda e.PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))$

Asp_2 vP_2

$\lambda e.PROG(e, \lambda e'.VP(e') \wedge Ag(e')=x)$ $\lambda e.[MQC(e) \wedge Ag(e, J)]$

(91)   a. $[[vP]] = \lambda e.[MQC(e) \wedge Ag(e, J)]$

b. $[[Asp_2]] = \lambda e.PROG(e, \lambda e'.VP(e') \wedge Ag(e')=x)$

c. $[[AspP_2]] = \lambda e.PROG(e, \lambda e'.VP(e') \wedge Ag(e')=x)(\lambda e.[MQC(e) \wedge Ag(e, J)])$
    $= \lambda e.[PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))]$

(...)

d. $[[VP_1]] = \lambda e.[PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))]$

e. $[[Asp_1]]^{M,g} = \lambda P \exists e[t_T \subseteq \tau(e) \wedge P(e)]$

f. $[[AspP_1]] = \lambda P \exists e[t_T \subseteq \tau(e) \wedge P(e)] (\lambda e.[PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))])$
    $= \exists e[t_T \subseteq \tau(e) \wedge PROG(e, \lambda e'.MQC(e') \wedge Ag(e', J))]$

To sum up, while the progressive meaning in –ndo allows us to explain the similar behavior of both periphrases (i.e., it makes events durative and homogeneous), the alternation between perfective and imperfective meaning in the auxiliary is what explains the differences between IPP and PPP regarding iterative readings.

6 Concluding remarks

In this paper, we have analyzed the perfective progressive periphrasis (PPP) and the imperfective progressive periphrasis (IPP) in Argentinian Spanish (AS) and in Brazilian Portuguese (BrP), emphasizing in the differences they present when combined with the Vendlerian aspectual classes; in particular, with telic events. We have proposed a compositional model that can account for the similarities and differences they show: while the gerund form (present in both periphrases) expresses a progressive meaning that gives rise to durative and homogeneous events, the auxiliary in PPP expresses a perfective meaning that allows for iterative readings.

In order to describe the behavior of the PPP in BrP and in AS, and its differences with respect to the IPP, we firstly discussed the aspectual value of the periphrases, in section 1. We showed that considerations over the perfectiveness or imperfectiveness of the periphrasis are inconclusive, since it behaves as perfective with respect to some tests and as imperfective with respect to other tests. Secondly, in section 2, we studied the interpretations arisen when they combine with the aspectual classes. We showed that while progressive periphrases do not change the temporal structure of atelic events, the combination of these periphrases with telic events gives rise to durative progressive (i.e., non-telic) readings. We also

observed that the main difference between the IPP and the PPP is that the latter can give rise to iterative readings, not allowed with the IPP. That is, with telic predicates, both the IPP and the PPP trigger an interpretation in which the *telos* is not reached, but the particular readings they give rise are different. On one hand, with achievements they both result in a durative event, but with a different nature: while the IPP triggers only a preparatory phase reading, the PPP can also trigger an iterative reading. The same mechanism is available for accomplishments: while both trigger detelicized events interpretations, only the PPP can also give rise to an iterative reading, as data from AS shows. The particular differences between AS and BrP are studied in section 4.

Considering these observations, we have proposed a formal model that allows us to account for the fact that, while both the IPP and the PPP give rise to durative progressive events, only the PPP triggers iterative interpretations, which are not allowed with IPP. As we pointed out in the compositional analysis, the gerund form "-ndo", realized in both periphrases, is responsible for the durative progressive meaning, meanwhile the different interpretations (e.g., the possibility of iteration with the PPP) are due to the aspectual value of the auxiliary. In particular, we proposed that the gerund expresses a progressive operator PROG (following ROTHSTEIN, 2004), which states a durative an ongoing event. On the other hand, we claimed that the perfective value of the auxiliary is an operator PERF that includes the time of the event in the topic time at least once. Thus, this mechanism allowed us to account for the progressive readings of the PPP, since the event is presented as closed but not necessarily completed. At the same time, we could account for the iterative readings of the PPP, impossible with the IPP, by claiming that, following the instruction of the PERF operator, the event time must be included in the topic time once or more than once.

Authorship statement

Romina Trebisacce and Victoria Ferrero were responsible for the Argentinian Spanish data and Renato Basso, for the Brazilian Portuguese data. The syntactic analysis was developed by Romina Trebisacce and Victoria Ferrero, and the semantic counterpart was developed by Renato Basso. Together they organized and structured the text, and came up with the final analysis. The whole process was collaborative.

References

ALTSHULER, D. G. There Is No Neutral Aspect. *Semantics and Linguistic Theory*, Ithaca, NY, v. 23, p. 40-62, 2013. DOI: https://doi.org/10.3765/salt.v23i0.2681

BASSO, R. M. *Telicidade e detelicização:* semântica e pragmática do domínio tempo-aspectual. 2007. 288f. Dissertation (Master in Linguistics) – Instituto de Estudos da Linguagem, Universidade Estadual de Campinas, 2007.

BASSO, R. M.; ILARI, R. Estativos e suas características. *Revista Brasileira de Linguística Aplicada*, Belo Horizonte, v. 4, n. 1, p. 15-26, 2004. DOI: https://doi.org/10.1590/S1984-63982004000100003

BENNETT, M.; PARTEE, B. H. *Toward the Logic of Tense and Aspect in English*. Bloomington: Indiana University Linguistics Club, 1978.

BERGAMINI-PEREZ, J. F.; BASSO, R. M. Adjuntos temporais e measure phrases: uma proposta semântica. *Cadernos de Estudos Lingüísticos*, Campinas, v. 58, n. 2, p. 345-367, 2016. DOI: https://doi.org/10.20396/cel.v58i2.8647159

BOHNEMEYER, J. Aspect vs. Relative Tense: The Case Reopened. *Natural Language & Linguistic Theory*, [*S.l.*], v. 32, n. 3, p. 917-954, 2014. DOI: https://doi.org/10.1007/s11049-013-9210-z

BONOMI, A. Aspect, Quantification and When-Clauses in Italian. *Linguistics and Philosophy*, [*S.l.*], v. 20, n. 5, p. 469-514, 1997. DOI: https://doi.org/:10.1023/A:1005388230492

DOWTY, D. *Word Meaning and Montague Grammar*. Dordrecht: Kluwer Academic Publishers, 1979. DOI: https://doi.org/10.1007/978-94-009-9473-7

GUIMARÃES, P. A. L. *Verbos de estado e morfologia de progressivo*: um estudo comparativo entre o português do Brasil e o inglês dos Estados Unidos da América. 2017. 202f. Dissertation (Master in Linguistics) – Faculdade de Letras, Universidade Federal do Rio de Janeiro, 2017.

KAMP, H.; ROHRER, C. Tense in Texts. *In*: BÄUERLE, R.; SCHWARZE, C.; VON STECHOW, A. (ed.). *Meaning, Use and Interpretation of Language*. Berlin; New York: de Gruyter, 1983. p. 250-269.

KLEIN, W. *Time in Language*. London: Routledge, 1994.

LANDMAN, F. The Progressive. *Natural Language Semantics*, [*S.l.*], v. 1, n. 1, p. 1-32, 1992. DOI: https://doi.org/10.1007/BF02342615

PIRES DE OLIVEIRA, R.; BASSO, R. M. Sobre a semântica e a pragmática do perfectivo. *Revista Letras,* Curitiba, v. 81, p. 123-140, 2010. DOI: https://doi.org/10.5380/rel.v81i0.17327

ROTHSTEIN, S. *Structuring Events*. Oxford: Blackwell, 2004. DOI: https://doi.org/10.1002/9780470759127

SMITH, C. S. *The Parameter of Aspect*. Dordrecht: Kluwer Academic Publishers, 1991.

SQUARTINI, M. *Verbal Periphrases in Romance:* Aspect, Actionality, and Grammaticalization. Berlin: Mouton de Gruyter, 1998. DOI: https://doi.org/10.1515/9783110805291.