

THE PRESENT PERFECT AT THE SEMANTICS/PRAGMATICS INTERFACE: AMERICAN ENGLISH AND BRAZILIAN PORTUGUESE¹

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Abstract

Modern theorists rarely agree on how to represent the categories of tense and aspect, making a consistent analysis for phenomena, such as the present perfect, more difficult to attain. It has been argued in previous analyses that the variable behavior of the present perfect between languages licenses independently motivated treatments, particularly of a morphosyntactic or semantic-syntactic nature (Giorgi & Pianesi 1997; Schmitt 2001; Ilari 2001). More specifically, the well-known readings of the American English (AE) present perfect (resultative, experiential, persistent situation, recent past (Comrie 1976)), are at odds with the readings of the corresponding structure in Brazilian Portuguese (BP), the ‘pretérito perfeito composto’ (default iterativity and occasional duration (Ilari 1999)). Despite these variations, the present work, assuming a tense-aspect framework at the semantic-pragmatic interface, will provide a unified analysis for the present perfect in AE and BP, which have traditionally been treated as semantically divergent. The present perfect meaning, in conjunction with the aspectual class of the predicate, can account for the major differences between languages, particularly regarding iterativity and the “present perfect puzzle”, regarding adverb compatibility.

1 Introduction

The present perfects in American English (AE) and Brazilian Portuguese (BP) are often treated as semantically divergent due to the apparent obligatory iteration of the BP variety.

- (1) a. Mary has sung “Happy Birthday”. (once)
b. A Maria tem cantado “Parabéns”. (várias vezes)
The Maria has sung “Congratulations” (many times)

Sentences like (1a) are most often used to express a single eventuality, although they are compatible with repetition when modified with such adverbs as ‘always’ or ‘many times’. This is contrary to (1b), which cannot refer to a single eventuality, but must express an iteration of singing events. Obligatory iterativity is a phenomenon specific to the present perfect in BP, since the past and future perfects do not force iteration, although they are compatible with repetition as well. Some have characterized the structure’s obligatory iterativity, distinguishing it from the AE present perfect, as being due to a covert habitual operator (Giorgi and Pianesi 1997) or to the selectional restrictions of the present tense morphology in BP (Schmitt 2001). The problem with these analyses is that while the present perfect is characteristically iterative, it can also express single, durative situations, as in (2) (Ilari 2001).

- (2) a. A Maria tem estado doente.
The Mary has been sick
b. Mary has been sick.

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So, besides having the same periphrastic structure (AE, 'have' + past participle and BP, 'ter' + *particípio passado*), the two varieties also present a semantic overlap as shown in (2a) and (2b), whose meanings are equivalent. However, we still have the different readings to account for. The main readings to be considered for AE are the universal and the existential, reduced from Comrie's (1976) traditional four-way distinction, as shown in (3a) – (3d). Universal readings arise when the eventuality described holds true throughout the entire interval within which it is located. Existential readings arise when the eventuality described occurred at least once within the location interval. The existential subsumes a further distinction between resultative, recent past and experiential readings, which merely reflect contextual variants of the same eventuality. The main readings that arise in BP are that of iterativity and durativity or continuity. Iterativity is understood when the situation repeats throughout the location interval and durativity is similar to the universal reading. Below are some examples of the different readings.

(3) AE

- | | | |
|--|---|---------------|
| a. Experiential: John has visited Paris. (once/before) | } | (Existential) |
| b. Resultative: John has arrived. (and is here) | | |
| c. Recent past: I have just graduated from college. | | |
| d. Persistent situation: John has lived in New York for 4 years. (Universal) | | |

BP

- a. Iterative: O Bruno tem ido à Disneylândia. (várias vezes)
 The Bruno has gone to-the Disneyland
 'Bruno has been going to Disneyland'
- b. Durative: A Maria tem sido feliz na Europa.
 The Maria has been happy in-the Europe
 'Mary has been happy in Europe'

In this paper, I will present a unified analysis for the present perfect structures in American English (AE) and Brazilian Portuguese (BP). In section 2, I will review the standard theories on the English present perfect and see how they might work for the BP present perfect, since the very few studies aimed at the BP present perfect have proven to be incomplete. Section 3 will test how the various readings that have been cited in the literature for the English present perfect and those available in the BP present perfect, work in a unified framework. The main property to be reconciled is that of iterativity which will then be tied into adverb restrictions in the next section. Section 4 will discuss the puzzles that arise in both languages regarding adverb compatibility. Section 5 will conclude.

2 Standard approaches

2.1 Extended Now

Standard approaches to the present perfect make use of variations of Reichenbach's (1947) three-point system of tenses: event time, speech time, and reference time. In the present perfect, the event time is located before speech time and the reference time is simultaneous with speech time. Many theorists favor the Extended Now theory (XN), in which the perfect introduces an interval whose left boundary is unspecified and whose right boundary is fixed at the reference time, in the case of the present perfect, speech time (McCoard 1978; Dowty 1979; Iatridou et al. 2003). The eventuality is located somewhere within this interval.

(4) XN



The immediate benefit of the XN theory is that it explains the present perfect's incompatibility with past-time adverbials, known as the “present perfect puzzle” (Klein 1992, 1994). Since the XN interval includes speech time, it is inappropriate for it to be modified by an adverb locating the eventuality in the past. This puzzle shows up in BP as well.

- (5) a. *Lena has worked yesterday.
b. *A Lena tem trabalhado ontem.

Also, XN theories more aptly account for the universal readings with adverbs such as 'since' and 'for'. The different readings are derived from the semantics of the perfect meaning and the meaning of the particular adverbs. An XN analysis defends that universal readings (u-perfects) can only arise with adverbials (Iatridou et al. 2003). While adverbials play an important part in interpreting the present perfect, adverb modification is not a necessary condition for using and understanding it. A resulting drawback of defending the inseparability of u-perfects and adverbs is that one would have to then stipulate ambiguous adverbs to account for ambiguous readings of the u-perfect. Consider the following examples.

- (6) a. John has been sick for two weeks.
b. John has been sick since 1990.

(6a) can be understood as ambiguous between the reading that John is still sick at speech time and the other reading that at some time in the past, John was sick for a period of two weeks. Likewise in (6b), not only can we understand that John's being sick is true for the entire period from 1990 up to and including speech time, it can also be true that at some point between 1990 and speech time, John fell sick and is better now. In situations where no adverb is used, XN theories often resort to covert adverbs to accommodate the notion that u-perfects can only arise with adverbs. This complicates the derivation of an existential reading, which is equally possible, given contextual information or discourse cues. See (7a).

- (7) a. John has been sick.
b. O João tem estado doente.

Theorists consider the BP present perfect to have the particular characteristic of not requiring adverbial modification, as in (7b), setting it apart from other Romance languages (Boléo 1936; Ilari 2001). On the occasions in which the structure is used to express a continuous situation, it is only through adverbial modification that we can get an existential reading, as in (8).

- (8) O João tem estado doente muitas vezes.
The John has been sick many times
'John has been sick many times'

However, this varies across dialects, such that both a universal and an existential reading are possible without adverbial modification. This possibility argues against covert adverbs. Finally, XN analyses generally are not compatible with repetition, not accounting for sentences like (9a), which do not seem to be of the same type as (9b), which are treated as single eventualities of five readings, for example (Iatridou et al. 2003).

- (9) a. Bill has read “The Da Vinci Code” many times.
b. Bill has read “The Da Vinci Code” five times.

Due to these inconsistencies, an XN analysis should be discarded because of its unconvincing cross-linguistic applicability.

2.2 Anteriority

Anteriority-type theories defend an interaction between the three temporal points or intervals involved in the present perfect meaning (Klein 1992, 1994). This type of theory claims that there is an interval located before speech time, within which the eventuality is located. The reference time (Klein's 'topic time') is often claimed to include or equal the speech time.

(10) tt = topic time $tsit$ = time of situation tu = time of utterance



In Klein's version, however, the reference time is given a more explicit role as topic time. While the event time and speech time remain virtually the same (Klein's situation time and utterance time, respectively), the topic time refers to the time for which the claim is made. The notion of topic time can be most easily demonstrated by a question/answer scenario, in which the question sets the topic time. In (11), it is possible that the man is still lying on the ground at speech time, but the question limits the answer to the topic time set by the underlined portion.

(11) Q: What did you see when you walked in the room?

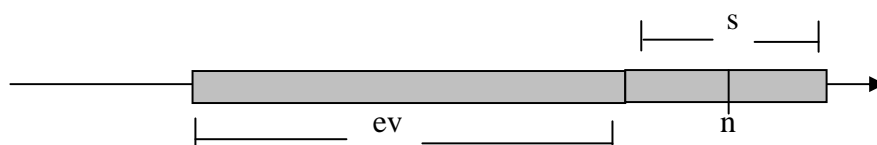
A: A man was laying on the ground.

The tense relation is given by topic time and speech time while the aspect relation is given by event time and topic time. In the present perfect, the topic time is always fixed at the present, thus including speech time. An interesting byproduct of the present perfect definition given above is that it says nothing about the distance between the eventuality and speech time, nor does it say anything about the frequency of intervals. It is Klein's topic time that distinguishes the present perfect from the simple past and the rest of the perfect system. This means that the ambiguity between the universal and existential readings is to be resolved at the level of pragmatics. However, the role of topic time in the lexical classification of verb phrases is indefeasible as Klein does not apply the traditional aspectual distinctions, making the potential for a formal implementation unclear.

2.3 Stativizer

Finally, there are some analyses that treat the perfect as an operator that introduces a state (Kamp and Reyle 1993; de Swart 1998; Nishiyama and Koenig 2004). There are different ways of conceptualizing how the perfect is to introduce the consequent state, but they are conceptually similar to the idea of the eventuality's interval preceding speech time, as in the anteriority theory. The relation between the prior eventuality and the ensuing state can be understood in one of three ways: as one of abutment (Kamp and Reyle 1993; de Swart 1998), causation (Moens and Steedman 1988; Smith 1997), or as introducing a permanent state (ter Meulen 1995).

(12) n = now; speech time s = perfect state ev = eventuality time



As Nishiyama and Koenig (from here on, NK) attest, all three of these types of stative approaches run into problems when the different types of possible inferences are taken into account. NK's examples below show how a stative approach must account for all of these possible inferences (s = perfect state).

- (13) Ken has broken his leg.
 - a. His leg is broken (s)
 - b. Ken is behind in his work (s)
 - c. #Susan is married (s)
- (14) I have seen the key in this room.
 - a. The key is in this room (s)
- (15) I've been in London since last week.
 - a. I am in London (s)

(13a) and (13b) show that we must account for two types of resultant relations: those entailed lexically and those entailed conversationally. We must also be able to exclude those states which have no causal relation, as in (13c), which would not be excluded in a stative theory with abutment. Also, we must allow for inferences which are not necessarily causal as in (14a) and (15a). NK account for these facts by including a free property variable in the semantics of the perfect meaning, whose value is to be determined at the level of pragmatics, guided primarily by Levinson's I-principle of informativeness.

In a sense, Klein's approach could be seen as a type of perfect state theory, such that the topic time serves as a "posttime" or "poststate" of the eventuality in question. This topic time takes over the role of reference time. In NK's analysis, the corresponding structure to Klein's topic time would be the perfect state. However, in NK's definition for the perfect, the original reference time remains, being that the perfect state is introduced specifically by the perfect. The perfect can take any type of eventuality and map it onto the consequent state, which overlaps speech time and thus, reference time. The category of the consequent state is determined pragmatically. This gives the prior eventuality current relevance via inference processes. How we get the relation between the prior eventuality and the consequent state is what makes the difference between NK's analysis and other treatments of the perfects as stativizers. It is not a relation of abutment, causality nor that which entails permanent consequences. It is a relation of inference that motivates the semantic-pragmatic interface. (16) through (18) are paraphrased from NK (2004: 107-8) and show that the perfect state has a semantic and a pragmatic function.

- (16) a. Semantic part: the free variable X is a semantic constraint imposed by the perfect form.
- b. Pragmatic part: the value of the free variable X is determined by pragmatic inferences.
- c. Constraint on X : it is an epistemic variable such that it is inferable from the prior eventuality.

This can be translated as (17), which means that there is some eventuality e and some free property variable s such that e is located before speech time and s overlaps with speech time.

- (17) $\exists e \exists s [\phi(e) \wedge X(s) \wedge \tau(e) < n \wedge \tau(s) \circ n]$

How X is determined is guided by Levinson's I-principle of informativeness.

- (18) I-principle:
 - 1. Maxim of minimization: the speaker always chooses the least informative utterance.

2. The hearer enriches the less informative utterance into the most specific interpretation, using world knowledge.

In the following proposal, I will adapt NK's analysis for BP data. To be clear, the following problems that we need to account for are: how to systematize the different readings that arise and how to understand the variable adverb compatibility in AE and BP.

3 Different readings in AE and BP

First, let us get a handle on what types of readings we are trying to account for. As mentioned in the previous section, many theorists defend that the universal reading can only arise in the company of adverbs. We have concluded here that both AE and BP present perfects can be used without adverbial modification. Another point to be made clear regards the fact that the BP present perfect has been cited as having only a universal, and not an existential, reading (Brugger 1978; Squartini and Bertinetto 2000). This conflicts directly with what Amaral and Howe (2005) claim about the BP present perfect, which is that the existential is a subcase of iterativity². This is further proof of the inconsistency of the universal/existential readings in the literature. For these reasons, I propose to abandon the problematic terms 'universal' and 'existential' in favor of 'continuous' and 'noncontinuous'. Continuous readings arise when certain predicates are used to express duration or continuity throughout the interval and whose subevents repeat. Noncontinuous readings arise when certain predicates are used to express iterative situations, repeating whole events.

This way of characterizing noncontinuous readings is compatible with the notion of the presupposition of repeatability that is often associated with the present perfect (Inoue 1979; Smith 1997). That is, the AE present perfect is often used to express one-time occurring eventualities, but there is still some element of repetition that guides its felicitous use. This explains the famous examples in (19) and (20)

- (19) a. ??Einstein has visited Princeton.
 b. Princeton has been visited by Einstein.
- (20) Have you visited the Monet exhibit?

Example (19a) is unacceptable because Einstein is dead and is therefore no longer capable of visiting Princeton again. However, (19b) is more acceptable if we are talking about Nobel Prize winners who have visited Princeton. Moreover, it is only appropriate to ask a question like (20) if: (i) the museum exhibit is still open, so that one can still possibly visit it; and (ii) the person being asked the question is physically capable of visiting the museum exhibit. Hence, the event in question must be repeatable and the referents of the noun phrase must exist at the time of utterance (Smith 1997). This condition of repeatability corroborates the idea that existential-type readings are a subtype of iterative readings. However, this does not mean that the eventuality must repeat at present or any time in the future, as shown by (21a). Even when the eventuality is understood as iterative as in the BP counterpart (21b), continuation can be canceled. So, while the eventualities need not repeat, or continue to repeat, the possibility must be there at speech time.

- (21) a. I have visited my parents, but I won't anymore.
 b. Eu tenho visitado os meus pais, mas não vou mais.
 I have visited the my parents, but no I-go more

How we get the readings from the present perfect meaning works like this. The eventuality described in the *ev* interval introduces a consequent state *s*, which overlaps speech time *n*, and

²Amaral and Howe (2005) also deal with subjunctive readings which can have existential readings. This is corroborated by historical data as well.

whose category is determined at the level of pragmatics. So, going back to example (13), an inferable consequent state to Ken's leg being broken are those listed in (13a) and (13b), but not (13c), since it is not inferable from the prior eventuality. Likewise, (14a) and (15a) are appropriate inferences for (14) and (15). Now take a stative predicate as in (22). An appropriate inference is that Bill still be in London at speech time. This means that when the prior eventuality is stative, it may introduce a consequent state of the same nature. This is how we get continuous readings. But this inference is not always necessary with stative predicates since other inferences are possible. For example,

- (22) Bill has been in London since last week.
- a. X(s): Bill is in London.
 - b. X(s): Bill is not too familiar with the tube system.
 - c. X(s): Bill got coverage of the McDonald's bombing.

The first inference is of a lexical nature and the second of a conversational nature. The third inference cancels the continuative nature of the prior eventuality. In this situation, it could be understood that Bill is a field news reporter based in New York. The bombing of a McDonald's in London occurred a week prior to the utterance and some time between the bombing and the utterance, Bill went to London to get coverage of it and has already left. (22) can be uttered felicitously by someone in London³. Turning to examples in BP, let us see how the typical readings relate to aspectual class.

Achievements and accomplishments are noncontinuous

- (23) A Lúcia tem chegado tarde ao escritório. (iterative events)

The Lucia has arrived late to-the office

'Lucia has been arriving late to the office'

- (24) O Paulo tem pintado a casa. (iterative subevents)

The Paulo has painted the house

'Paulo has been painting the house'

(24) means that the target state is not reached at speech time: the house is not completely painted yet.

Activities are noncontinuous

- (25) A Ana tem corrido muito. (iterative events or subevents)

The Ana has run a lot

'Ana has been running a lot'

(25) can be understood as repeating subevents if some accomplishment-like reference exists in the context, like if Ana is running a marathon and it is not over yet. Then it would be understood similarly to (24). Otherwise, as a true activity, it would be understood as iterative events of running. For stative predicates, Amaral and Howe (2005) distinguish stage-level and individual level predicates since they behave slightly differently with respect to iterativity and continuity.

Individual-Level Predicates (ILP) are noncontinuous

- (26) O João tem sido inteligente.

The João has been intelligent.

'João has been intelligent'

³To be uttered felicitously by someone not in London, the sentence would have to read 'Bill has been *to* London since last week'.

This sentence means that João has demonstrated his intelligence on various occasions⁴.

Stage-Level Predicates (SLP) are continuous

(27) A Maria tem estado doente.

The Mary has been sick

'Mary has been sick'

Only these last types of predicates do not force iterativity and continuity holds. An iterative reading is also possible with SLP's, but only with overt adverbial modification (Amaral and Howe 2005), as in (28).

(28) A Maria tem estado doente muitas vezes ultimamente.

The Mary has been sick many times lately

'Mary has been sick a lot lately'

4 Present perfect puzzles

While the AE present perfect is compatible with single readings and iterative readings, BP forces iterative readings in most cases. In AE, we often get iterativity through adverb modification or plural NPs. Since these modifications are not necessary in BP, why is iterativity forced? This is what I will call the “frequency puzzle” and, as outlined above, it refers to the fact that the BP present perfect is incompatible with definite frequency adverbs like 'once' ('uma vez') or 'five times' ('cinco vezes'), but is compatible with indefinite frequency adverbs like 'many times' ('muitas vezes') and 'lately' ('ultimamente'). The traditional “present perfect puzzle”, the incompatibility with past time adverbials will also be dealt with, in section 4.2.

4.1 The frequency puzzle

If a semantic analysis of the present perfect in BP is to stipulate that eventualities described by eventive and ILP predicates must refer to two or more occurrences (instead of 'at least one'), it must also explain why BP speakers cannot specify this number. Ultimately, what one really must explain is why frequency cannot be modified at all, regardless of whether it is one, three or fifty occurrences. It is not false to use the BP present perfect to describe an eventuality that in fact occurred only three times. However, it is infelicitous to specify the three times in the present perfect clause. This leads us to question the generally accepted idea that it is necessarily false to use the present perfect to describe an eventuality that occurs only once. Perhaps it is also just infelicitous. To even begin to answer any of these questions, we must first try to figure out the source of the iterativity.

Many theorists agree that the perfect in English outputs a state regardless of the type of eventuality described by the perfect (Dowty 1979; Kamp and Reyle 1993; Michaelis 1998; de Swart 1998). Let us assume for now that the perfect in BP outputs a state as well. Since the rest of the perfect system behaves similarly in both languages, this is not such an implausible assumption.

There are many ways languages can encode aspect and, taking a hint from Klein (1994), one can expect that some languages focus on certain parts of events while other languages focus on other parts of events. For example, in complex telic events, English tends to focus on the initial state such that the lexical properties of the final state are projected into the “posttime” (Klein 1994). In the case of the present perfect, the posttime is the perfect state. So, for a

⁴This seems to reflect some kind of coercion from an individual-level predicate to a stage-level predicate, but the output appears eventive, not stative. I am not sure what the nature of this coercion would be and so I leave it up to future research.

sentence like 'Mary has entered the room', the immediate lexical inference is that she is in the room. Now, given the fact that the BP present perfect has often been characterized as an imperfective, or a perfective with imperfective properties (Squartini and Bertinetto 2000), we can say that BP focuses on ongoing action leading to the final state. This way, the lexical properties to be projected into the “posttime”, or the perfect state, are those of continuation.

Therefore, we can maintain that both perfects output a state, but the difference is in what kind of state is introduced. In AE, the perfect most likely introduces some resulting state of the prior eventuality. In BP, the perfect most likely introduces the beginning of a state of continuation, and in the case of eventives, iterativity. More specifically, the lexical inferences that can be derived from the prior eventuality will corroborate the idea that AE outputs a resultant state and BP outputs an iterative state. While conversational inferences, discourse cues and context can give us an array of other inferences, we are concerned only with the lexical for now. Let us look at some examples. The BP examples and perfect state inferences are direct translations of the AE examples and inferences.

(29) American English

Aspectual Class	Eventuality	Lexical X(s)
Achievement	John has arrived late to work.	John is here and is late. #John arrives late
Accomplishment	John has painted his house.	The house is painted/complete. #John paints his house.
Activity	John has run.	John is disposed to run. #John runs
Individual-level	John has been smart.	??John is smart. John is not always smart.
Stage-level	John has been sick.	John is sick. John is not sick.

(30) Brazilian Portuguese

Aspectual Class	Eventuality	Lexical X(s)
Achievement	O João tem chegado tarde.	#O João está aqui e está atrasado. O João chega tarde.
Accomplishment	O João tem pintado a sua casa.	#A casa está pintada/completa. O João pinta a sua casa.
Activity	O João tem corrido.	O João está disposto a correr. O João corre.
Individual-level	O João tem sido inteligente.	??O João é inteligente. O João não é sempre inteligente.
Stage-level	O João tem estado doente.	O João está doente O João não está doente.

The right hand columns show the lexical inferences that can and cannot be derived from the prior eventuality. In achievements and accomplishments, the opposite kinds of perfect states are inferable from the prior eventuality. In AE, the perfect state inferences reflect resultant states and do not allow for a generic or repetitive reading, while BP does. In activities, one can infer in AE about the general disposition of the agent while in BP, one can infer, again a generic or repetitive reading as well as disposition. The inferences in individual-level and stage level predicates are the same. In BP, the generic or habitual inference is always cancelable with 'mas não mais' ('but not anymore'), to show that the iterative state output by the perfect does not have to be true at speech time. What must still be met, though, is the condition of repeatability as mentioned in section 3. In order to confirm that the consequent state continues or not, it must be possible for it to continue. AE and BP behave similarly with statives because the result of a state and the continuation of a state are the same.

Summing up, both AE and BP perfects are compatible with resultative and continuous inferences, but in AE the resultative property is encoded lexically while the continuous is not, and in BP, the continuous property is encoded lexically, while the resultative is not. The AE perfect introduces the end of a perfect state and the BP perfect introduces the beginning of an iterative state⁵.

A common test for whether an eventuality can occur in the present perfect in BP is if it is compatible with 'ultimamente' ('lately'). This ties in well with the analysis here since the iterative perfect state that yields a habitual or generic inference is located at speech time. Since the iterative state only begins after the prior eventuality, the genericity is delimited by the introduction of this state, giving us a sense of 'lately' instead of 'always'. 'Always' ('sempre') is also compatible with the BP present perfect, but must be made explicit.

If the above line of reasoning is true, then we also have an explanation for why the BP present perfect is incompatible with definite frequency adverbs, regardless of whether the frequency refers to one or more. The iterative state is compatible with those adverbs that can iterate with the eventuality and is not compatible with definite frequency adverbs which would have scope over the eventuality. So, while (31) may refer to three particular instances, it was not the speaker's intention to assert this when using the present perfect. Likewise, if the eventuality only refers to one occurrence, it would be inappropriate to use the present perfect since an iterative state is always introduced by eventive predicates in the perfect. Definite frequency adverbs are acceptable when in contexts of indefinite repetition, as in (32).

- (31) a. A Brenda tem beijado.
 The Brenda has kissed
 'Brenda has been kissing (lately)'
- b. *A Brenda tem beijado três vezes.
 The Brenda has kissed three times
 'Brenda has kissed three times'
- (32) Eles têm nos visitado três vezes por semana.
 They have us visited three times per week
 'They have visited us three times a week'
- (33) a. Brenda has kissed.
 b. Brenda has kissed three times.

⁵The notion of the BP perfect introducing the beginning of an iterative state was first suggested to me informally in a personal communication with Telmo Mória (2005).

In the AE counterparts, (33a) has an 'at least once' reading, given that the lexical property to be projected into the perfect state is that of Brenda being in the poststate of kissing. The nature of the perfect state as a resultative is what allows for modification of frequency as in (33b). Summing up, the frequency puzzle is due to the fact that the perfect in each language introduces states of different categories.

4.2 The past adverb puzzle

The original "present perfect puzzle" as dubbed by Klein (1992, 1994) refers to the incompatibility of the present perfect with past time adverbs. This puzzle is shared by both AE and BP.

- (34) a. *O Chris tem chegado ontem.
b. *Chris has arrived yesterday.

Positional adverbs can modify either the reference time or the event time for any kind of eventuality. This is more easily demonstrated with the past perfect.

- (35) a. Chris had left **yesterday**. (reference time)
b. Chris wasn't in his hotel room this morning. He **had left** yesterday. (event time)

Modification of one or the other time interval depends on lexical specification and context. Many XN theories resolve this by the fact that an interval including the speech time, cannot be modified by a past-time adverb. This, however, excludes all positional adverbs (McCoard 1978, Dowty 1979, Pancheva and Stechow 2004). If the positional adverb is indefinite, it is compatible with the present perfect.

- (36) a. Chris has worked at 9 o'clock.
b. O Chris tem trabalhado às 9 horas.
(37) a. Chris has worked on Sundays.
b. O Chris tem trabalhado nos domingos.

The incompatibility of the present perfect with definite positional adverbs in the past results from the reference time already being modified in terms of position, by speech time in the present tense. So, positional adverbs cannot modify both the reference time and the eventuality time simultaneously, unless there is some reason to do so. This constraint, known as the present perfect puzzle, disappears once we distinguish definite from indefinite positional adverbs.

5 Concluding Remarks

The analysis outlined here, while of an informal nature, argues for a unified analysis of the present perfect in American English and Brazilian Portuguese. Adopting a perfect state framework based on Nishiyama and Koenig (2004), the present perfect meaning in both languages is semantically uniform and their differences are explained by a pragmatic divergence. The sources of both the frequency puzzle and the past adverb puzzle can be derived from the semantics and pragmatics of this present perfect meaning.

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