# On the Semantics and Pragmatics of Present Tenses\*

## Sobre a Semântica e a Pragmática dos Tempos no Presente

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#### Introduction

The semantics of tense and aspect has enjoyed ever growing attention since the 1970's. Nevertheless, a principled, comprehensive account of the interpretation of the present tense of European languages, such as the examples given in (1) is still presents challenges.

- (1) a. O João nada. (Portuguese)
  - b. Juan nada. (Spanish)
  - c. Jean nage. (French)
  - d. Gianni nuota. (Italian)
  - e. Johan schwimmt (German)
  - f. John swims. (English)

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Ignoring for the while effects that arise if we change *swim* in (1) for verbs of different *Aktionsarten*, present simple verbs alternate at least these values in the languages listed in (1):

- · They are interpretable as sentences describing habits.¹ Or, in the case where the subject is a bare noun as in *fish swim*, a generic. In languages as German and French the simple present form can also be interpreted as a progressive, whereby (1 c) or (1 e) may be interpreted as reporting a fact which is going on concomitant to the utterance of the sentence. The conditions for the availability of that reading are not the same in the two languages, but for now what matters is acknowledging the possibility.
- · A futurate reading is available for simple present cross-linguistically, although its conditions vary from language to language.
- · Somewhat more restricted in frequency, but still universally available throughout natural languages, are what I call here the narrative uses of simple present. They can be divided into two sorts best known as *sportscaster style* and *historical present*. The *sportscaster style* narrates a sequence of events each one roughly concomitant to the time of utterance of the sentence which reports it. The *historical present* narrates a sequence of events in the past.

With so many readings available, the challenge is to know their nature and to propose a semantics for the simple present that at least remains compatible with the phenomena listed above. And also, to give an account of how they arise cross-linguistically in an empirically interesting way. In what follows I will venture a hypothesis for treating simple presents non-reportively. It will focus on attributing a semantic representation for present which is compatible with habituality, and on proposing a semantics-pragmatics interface that accounts for how that value and the reportive sports-caster values arise. The historical present and the futurate values will not be taken up. Also, the main focus will be in Portuguese and English, with only occasional notes about the other languages. I assume the core issues are the same for all theses languages, but for reasons of space will not deal with the issues here.

<sup>&</sup>lt;sup>1</sup> A note of caution about terminology. I will not attempt to be fully precise about terms such as habitual, generic, dispositional and their exact relation with neighbouring concepts such as perfectivity and imperfectivity. I hope to have used them intuitively, clearly and coherently enough throughout.

The paper is divided as follows. Section 1 has an overview of treatment of present simple with reportive definitions within approaches which stemmed from Montague Semantics in the 70's, especially DRT. Notice that although DRT will be used as a representational format here, that does not imply much about the hypotheses that will be defended. The issues we will be interested are assumed throughout the literature. Sections 2 and 3 propose a non-reportive characterisation of the semantics of present simples, as a means of avoiding the problems that arise from using the ontology of eventualities to characterise simple present tenses. By the end of section 3 we will have DRSs for sentences with present simples which are compatible with reportive or non-reportive readings, thus in section 4 it will be argued that Gricean principles as explored by Blutner (2000) can account for how those readings arise.

### THE SEMANTICS OF PRESENT SIMPLE IN FORMAL SEMANTICS

Despite the ambiguity noted above, the semantics of present simple tenses is standardly defined reportively, i.e. saying that the eventuality is true at the utterance time, as can be seen from Bennet and Partee (1978). Thus, the sentence *John swims* is seen as true if at the utterance time it is true that John swims. That means that the semantics of simple present is something like the sportscaster style, which is a highly marked kind of use. The more common non-reportive reading is arrived at by semantic operations over the artificial reportive meaning considered to be the default (even in terms of language acquisition). Another key ingredient in the analysis of the temporal-aspectual property of tenses is assuming events, following the seminal Davidson (1967) and developments such as Bach (1986). With that move come the following two ontological assumptions about the relation of types of eventualities and their relations with time intervals: (i) events are included in the time in which they are claimed to hold; (ii) states overflow the time for which they are claimed to hold.

In a DRS representation the relation between events and time intervals appears as the condition [e  $\subseteq$  t]. The condition for states appears as [t  $\subseteq$  s]. These are independent from the tense of the verb. Observe their results when interacting with tense: to the left of the arrows, the conditions that a sentence in the past, future or present tense contributes to the DRS it embeds in. To the right of the arrow we see some necessary consequences of those conditions.

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(2) a. past: [t < n, e \subseteq t] \Rightarrow e < n.
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b. **future**:  $[t>n, e \subseteq t] \Rightarrow e>n$ .

c. **present**:  $[t = n, e \subseteq t] \Rightarrow *e \subseteq n$ .

d. **present**:  $[t = n, t \subseteq s] \Rightarrow n \subseteq s$ .

The consequences for past and future are uncontroversial enough. Not so for the present, there is a problem in (2 c). The consequence  $e \subseteq n$  follows from the reportive tense definition [t=n] and the assumption that events are included in their location time  $[e \subseteq t]$ . According to this, if an utterance of *John swims* is to be truthful, the described eventuality of John's swimming has to occur completely within the time of the utterance. In other words,  $[t=n,e\subseteq t]$  gives that the meaning of simple present is the sportscaster style. Since an  $[e\subseteq n]$  reading of *John swims* is very far from the intuitive reading of that sentence, it needs to be banned.

As R, R & K (2005, p. 57) point out that ban is not without its motivation. In the background of all that has been said so far lies an assumption of temporal staticity of discourse: it is assumed that nothing of importance to a discourse changes while it is in progress. But after banning \*[e  $\subseteq$  n], what will we substitute it with? Using the motivation just mentioned K&R (1993, p. 536) correctly claim that we want to interpret simple present according to principle (3):

(3) The eventuality described by a present tense sentence must properly include the utterance time.

The principle (3) amounts to saying that we want simple present to introduce a condition  $[n \subseteq e]$  in the DRS. There are two important consequences. First, the present tense will be predicted to have stative properties, since the eventualities it denotes overflow the time for which they are claimed, just as states do. Second, since the reportive view ([t = n]) and the ontological assumption on the relation between events and temporal intervals ( $[e \subseteq n]$ ) don't add up to the condition  $[n \subseteq e]$ , we must posit that the interpretation of simple present with event verbs is arrived at by the interference of some other factor, i.e., a silent operator. The approach here aims at dispensing with those operators by giving present simple tense a non-reportive definition.

#### TOWARDS A NON-REPORTIVE DEFINITION OF SIMPLE PRESENT

The previous section showed that the reportive view of verb tenses and the ontological commitment concerning the existence of states and events and their relation with time intervals are cornerstones of the standard analysis of the temporal-aspectual properties of verbs in natural languages.

This section will propose an underspecification view of the semantics of verbs, where they are analysed as non-reportive. Their semantic content will be characterised without appeal to the  $[e \subseteq t]$  and  $[t \subseteq s]$  conditions for events and states, respectively. Note, however, that the ontological commitment in those conditions will not be questioned, it simply will not be used.

The first step is to capture the conditions in which simple present sentences felicitously introduce an eventuality into the conversational background. The notion of background brings us close to the notion of presupposition. That is the desired effect. The treatment that comes out from using the conversational background to characterise present tenses is consonant to that spirit, as I will show in the next sections. What we want to find using the common background is some regularity in the felicity conditions of present tense sentences when used with its most natural meaning, the non-reportive. Is that possible?

In fact there is a regularity concerning that which is already quite well-known (see, for example, Smith, 1991), (i) activity and state verbs in the simple present are felicitous when interpreted non-reportively; (ii) while accomplishment and achievement verbs in the simple present are infelicitous when interpreted non-reportively.

We can see that by constituting a scenario where interlocutors A and B are talking about Fred. Suppose interlocutor A knows only that Fred is a male adult who is a friend of B's. Whereas B knows many things about Fred, just as he knows that his interlocutor A does not know those things. We want to verify that in an exchange of the type (4), a sentence X can felicitously instantiate a property to Fred considering A's minimal background.

- (4) A: Me fala do João. /Tell me something about John.
  - B: X
- (5) a. O João fuma / John smokes. (activity)
  - b. ? O João alcança o cume do Aconcágua. / John reaches the peak of the Aconcagua. (*achievement*)

- c. ? O João descobre a América. /? John discovers America. (*achievement*)
- d. ? O João constrói uma casa. / ? John builds a house. (accomplishment)
- e. ? O João come a maçã. / ? John eats the apple. (accomplishment)
- f. O João detesta a Maria. / John hates Mary. (state)
- g. O João mora na Índia. / John lives in India. (state)

The result of this test, which is no news, can be seen in (5) for Brazilian Portuguese and English. States and Activities are felicitous in the nonreportive interpretation of simple present sentences. Accomplishments and achievements aren't.

Notice that the results are identical for English and for Brazilian Portuguese. It seems that they could be extended to Spanish and Italian. And to French and German as well if we are careful enough to exclude the progressive interpretation as will be mentioned in the next section.

Recall that the point of testing the felicity conditions of present tense sentences was to arrive at a principle of interpretation of present tense sentences without relying on the assumptions about the relation of eventualities to the time in which they happen/hold. Thus using the sentences of (5) in the context of (4) gives us the well-known fact that states and activities are felicitous in the non-reportive present tense, while accomplishments and achievements are not.

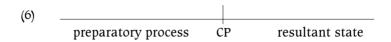
As we saw in (5), felicitous simple present sentences have verbs that are either activities, or states in their *Aktionsart*. Accomplishments are also acceptable if read as non-telic, but in such cases they are reputed to be activities semantically. So we can say that felicitous simple present sentences denote an eventuality which overflows the utterance time.

## AKTIONSARTEN CHARACTERISED AS (ABSENCE OF) CULMINATION POINT

I will argue now that with that we can characterise the regularity discussed in the previous section by using the *Aktionsarten* to motivate the interpretation principle (3). And that if we analyse the *Aktionsarten* in the

terms of the conceptual structure of eventualites proposed by Moens e Steedman (1987, p. 4), we can use the notion of change to interpret present tenses. Using the notion of change is what will permit us to avoid the use of event or state in the characterisation.

Moens e Steedman proposed that events have the structure depicted in (6), where CP is the culmination point of the process, i.e., where the process reaches its result.



The only ontological assumption the nucleus structure requires us to bring into the characterisation is a notion of change. It can be characterised as the point where change occurs: the culmination, where that action ceases and the result of the event obtains.

With (6), the *Aktionsarten* can be characterised in terms of having or not a CP and a preparatory process, as shown schematically in (7) (where x, y z are variables for sub-intervals such that x is earlier than y and z is earlier than z).

- (8) a. states :  $[\neg PREP\_PROC(x) \land \neg CP(y)]$ 
  - b. activities : [PREP\_PROC(x)  $\land \neg CP(y)$ ]
  - $c. \quad accomplishments: [\texttt{PREP\_PROC}(x) \land \ \texttt{CP}(y) \ ]$
  - d.  $achievements : [\neg PREP\_PROC(x) \land CP(y)]$

By characterising the *Aktionsarten* as in (8) gives us that what sets activities/states apart from achievements/accomplishments is having or not a Culmination Point. Activities and State lack Culmination Points. Thus we can say that sentences (5) in the context of (4) are felicitous if they lack a CP (culmination point).

Since the reading on which this regularity was obtained is the non-reportive reading, we are free to posit that simple present introduces condition  $[n \subset t]$  in the DRS, instead of the more frequently claimed [t = n]. This would amount to changing the CR.S' of K&R (1993, p. 610) from (9 b) to (9 a):<sup>2</sup>

 $<sup>^2\,</sup>$  This is actually a simplification. The substitution of TPpt (Temporal Perspective point) for n has been taken for granted. The rule for that substitution as the triggering configuration can be found in K&R (1993, p. 610).

(9) a. If the Tense of the verb is present then introduce CONDITIONS,

 $[\mathbf{n} \subset \mathbf{t}]$  in the DRS.

b. If the Tense of the verb is present then introduce CONDITIONS $_{\rm K}$ 

[n = t] in the DRS.

The most important feature of (9) is that it allows the repetition of the eventuality within the interval whose existence is asserted. So by positing it as the Construction Rule for simple present, we meet the principle (3) for interpretation for that tense from K&R (1993). Standardly the Construction Rule would be (9 b), which is reportive, and a generic/habitual operator would be posited to meet principle (3). R, R&K (2005) has the details of how things would go about in the lines of (9 b).

Since, as mentioned, the adequateness of the assumption that events are included in their location time was never questioned, the DRS for simple present will still feature the condition  $[e \subseteq t]$ . Thus there are two conditions relevant to temporal interpretation  $[n \subset t; e \subseteq t]$ . Together they say that somewhere within an arbitrarily long interval (t) which properly includes the utterance time (n) there was at least one piece of evidence that supports the existence of events of swimming by John throughout the interval. It says nothing else about those events in their relation to the utterance time. The DRS by Construction Rule (9 a) is (10 a); whereas DRS (10 b) is the standard one by (9 b).

(10) a. [n, j, t, s, x: John(j) & (n 
$$\subset$$
 t) & (e  $\subseteq$  t) e<sub>1</sub>: 'swim'(j)]  
b. [n, j, t, s, x: John(j) & (n = t) & (e  $\subseteq$  t) & s<sub>1</sub>: 'swim'(j)]

In the next section we will see how the value of the sentences become further specified with the  $[n \subset t; e \subseteq t]$  such that habituality and the sportscaster style are derived and also the intuitive entailment conditions hold between these readings.

#### How the readings of present tense arise

Due to its loosely specified nature with  $[n \subset t]$ , the DRS for present tense is compatible with conditions to any of these effects: (i) the eventuality/ies preceding the u.t.; (ii) the eventuality/ies overlapping with the u.t.; (iii) the eventuality/ies being posterior to the u.t.. This section shows that independently motivated principles assumed in bi-directional OT Semantics can correctly supply conditions (ii) once the  $[n \subset t]$  condition is assumed for present tense. Also, the Gricean maxims in the OT framework will permit us to yield the habitual reading as coming from  $[n \subset t]$ : a plural occurrence of eventualities will be presumed to occur in the interval by a principle of informativeness. Since (i) and (iii) correspond to the past and the futurate interpretations we will not take them at issue.

Bi-directional OT Semantics aims at bringing together the tradition of Radical Pragmatics and Optimality Theory. Blutner (2000) argues for an optimality-theoretic framework which captures Gricean maxims and balances informativeness and efficiency in natural language processing. Gricean maxims are formulated as the I-principle, which is the speaker's perspective of comparing different syntactic expressions to convey the meaning intended; and the Q-principle, the hearer's perspective comparing alternative syntactic candidates for a certain meaning. The principles are a metric for optimality and appear as the constraints Avoid Accommodation and Be Strong. Where Be Strong captures the speaker's goal of being informative and strength is based on entailment relations. And Avoid Accommodation is a blocking mechanism as a counterbalance of the demands of the Be Strong. By definition (11 b), the result of optimization under one perspective have influence in structures that compete in the other perspective.

- (11) a. Q-principle: Say as much as you can (given I)

  I-principle: Say no more than you must (given Q)
  - b. bidirectional OT (weak version)
    - (Q) [<A,  $\tau>$  satisfies the Q principle iff <A,  $\tau>$   $\in$  **Generator** and there is no other pair <A',  $\tau>$  *satisfying the I-principle* such that <A',  $\tau>$  is less costly than <A,  $\tau>$ ;
    - (I) [<A,  $\tau>$  satisfies the I principle iff <A,  $\tau>$   $\in$  **Generator** and there is no other pair <A',  $\tau>$  *satisfying*

the *Q* principle such that  $\langle A', \tau \rangle$  is less costly than  $\langle A, \tau \rangle$ :

<A,  $\tau$ > is called *super-optimal* iff it satisfies both the Q- principle and the I-principle.

- (12) a. *AvoidAccommodation*: it counts the number of discourse markers that are involved in accommodation.
  - b. *BeStrong*: it evaluates pairs of form and context <A,  $\tau>$  with stronger outputs  $\tau$  higher than pairs with weaker ones.
  - c. Constraint Ranking: AvoidA >> BeStrong

#### How the Readings Arise with OT Semantics

As said in the opening section, the main problem of simple present is to account for the multiple types of situations which it can be used in. So, what cases exactly do we have to give an explanation for such that their solutions take care of all the others?

With the conditions  $[n \subset t; e \subseteq t]$ , the resulting DRS is tantamount to saying that Fred belongs to the set of swimmers for the interval t. The approach leaves us under-informed with respect to details such as does he belong to the group of swimmers because he swam once? twice? regularly during the interval (say, twice a week for a whole decade)? Did he swim only when it was needed?

Before taking up the issue of how and to which extent such details should be specified, an observation has to be made about evidentiality of simple present in their habitual use. Recall that the reportive view of simple present characterises them as  $[\mathbf{n}=t]$ . The '=' is a deictic element in the definition: it anchors the event to the utterance time  $\mathbf{n}$  as can be seen from (2 c). That means that the evidence for uttering *Fred swims* with the  $[\mathbf{n}=t]$  definition is the deictic identification of the eventuality at the utterance time. As has been underscored, (2 c) renders the sportscaster style of simple present and has to be blocked to render its habitual use. In the sportscaster style then the question of what counts as evidence for the uttering of a simple present sentence is very clear. The same cannot be said about the habitual use. What counts as evidence to say that someone swims (in the habitual sense)?

Let's consider the hypothesis of it being deictic identification of the eventuality at utterance time. This is reasonable for, in unmarked circumstances, if you see Fred swimming right before your eyes you can truthfully and felicitously utter *Fred swims*.<sup>3</sup>

But it is not enough and eventually the following problem will have to be dealt with. The circumstances can easily take one to say *Fred is swimming but he doesn't swim* if it is understood as *Fred is swimming now but he doesn't swim usually*. For example, suppose Fred hates water and he had made bet where if he lost he would have to swim and the sentence is uttered as he is paying the bet. A proposal for simple present has to work around that problem somehow. In the theory proposed here that solution will come when the I and Q principles interact with the conditions introduced by the simple present.

For the moment, the key point is to notice that since the  $[n \subset t]$  definition has no deictic element, there is no need to say that the evidence for uttering a simple present sentence is deictic identification at utterance time. The  $[n \subset t]$  suggests that much weaker evidence can licence *Fred swims*. We will standardly assume that it can be any evidence which the utterer accepts as enough. That assumption has an important consequence. The First it that to licence the habitual use of simple present any acceptable piece of evidence will have equal weight to any other, no matter how strong or weak they are in intuitive terms. Consider these three pieces of evidence:

- (13) a. Overhearing Fred say that he owns goggles;
  - b. Reading in the paper that Fred is a swimming gold-medalist:
  - c. Seeing Fred swim;

Despite the difference in their intuitive strength, they licence the sentence *Fred swims* just the same. So the deictic situation of seeing Fred swim is not stronger than the other more indirect pieces of evidence.

Despite its obviousness, that first consequence invites a second one which is crucial: just as there is no ranking amongst the types of evidence, there is also no ranking amongst where in the interval they occur. In

<sup>&</sup>lt;sup>3</sup> The fact that it is the same kind of evidence that licences the reportive use need not bother us: choosing between wanting to convey the reportive meaning or the non-reportive one is an aspect of the conversational agent's behaviour that this approach does not aim at capturing.

particular, evidence that occurs concomitant to utterance time has the same weight as evidence that occurs in other points in the interval t. In languages like English and BP which have a concurrent grammatical form to express progress, it doesn't matter if the evidence is concomitant to utterance time. As will be commented, in languages like German and French which lack those forms it happens differently. But the issue cannot be dealt with here for reasons of space.

So far we have captured one element of the habitual meaning of *Fred swims*: that it allows a number of occurrences of the swimming event to be placed at any point in the relevant interval such that there may or may not be coincidence with the utterance time  $\mathbf{n}$ . However, the conditions  $[\mathbf{n} \subset t; \mathbf{e} \subseteq t]$  do not capture another important element of the habitual reading. There is still the need to account systematically for when there are many occurrences of the event within the interval and when there is only one occurrence.

That involves specifying what licences the readings of simple present as many eventualities within the interval and what licences single eventuality readings. In other words, the task is to set the habitual use as in (4) apart from the sportscaster style use. To do that, we have to account for the three following types of cases:

- · Case 1: The conversational agent (call him Agent A) who utters *Fred swims* does so to supply his interlocutor (Agent B) with more information about Fred. This is basically the context of (9) which we considered in the previous section.
- · Case 2: Suppose the sentence *Fred swims* is uttered by the sea as a reaction to Fred having jumped in the water one moment earlier. Such that Agent A utters it while Fred is in the water and swimming.
- · Case 3: Suppose a context like that of Case 2. Plus suppose that at least one of the Agents had assumed that Fred had never swam in his life (and thus was not able to).

In Case 1, we have to say something about allowing or excluding the possibility of the event happening once only. On the one hand, we want to exclude that possibility: if a person swims once only within a long period of time, we normally will not say *(s)he swims* holds for her/him (this is especially clear with respect to smoking: *(s)he smokes* does not hold for one who tried a cigarette once as a teenager and never touched another ever since then). On the other hand, we – at the risk of inconsistency – want to say also that it is possible for the eventuality to have occurred only once. Suppose

that Fred knows in theory how to swim, but that he had never done it except for one time when he saved someone from drowning. With such (perfectly plausible) backstories *Fred swims* would be undoubtly felicitous despite his having done it only once. So we have reasons both for and against excluding the possibility of the event happening only once. Case 3 will provide the necessary clues to decide how to deal with this problem, showing that it lies in the presuppositions the conversational agents have.

For Case 2, given  $[\mathbf{n} \subset t; \mathbf{e} \subseteq t]$ , the task is to exclude that what is being referred to is the event being witnessed. For languages like English and BP, which have a grammaticalised be –ing forms to convey progressive, sentences such as Fred swims are infelicitous to describe the activity Fred is engaged in at utterance time. For contexts like Case 2, present tense sentences will typically be used in the sense of Fred is in the habit of swimming or Fred is able to swim.

As for Case 3, if seeing Fred swim is enough for the agents to reevaluate their assumptions and conclude that they had been wrong, then Case 3 becomes just like Case 2: the sentence *Fred swims* would have been uttered without the negative assumption about Fred's swimming abilities. But re-evaluation need not occur. Suppose it doesn't. That is, suppose that despite seeing Fred swim the agents still maintain that he had never swum before nor did he have the ability to until the moment he jumped in the water. The sentence *Fred swims* will still be felicitous in that case. But how can it be felicitous if, due to the assumptions of the conversational agents, there is only one swimming event to be referred to and no super-interval for the swimming to be inserted in? The bare  $[n \subset t; e \subseteq t]$  conditions cannot capture that: they require the agents to believe that the eventuality could have occurred in other moments.

Another ramification of Case 3 brings yet more problems. Suppose Fred's one and only swim happened yesterday and that the agents not only did not change their negative assumptions but also that they believe that Fred will never swim again nor have the ability to. Somewhat surprisingly, this ramification of Case 3 would make *Fred swims* infelicitous (even if reportively since the swim happened previous to the utterance time).

It now has to be shown that the I-principle, the Q-principle and the constraints AvoidAccomodation and BeStrong can account for the habitual readings in those Cases and for the entailment relations between the competing sentences. By looking at Cases 1 and 2 together it is clear that simple present does not accept that the witnessed event be referred to. The problem Case 3 can also accept that solution once it is taken into account that it involves previous assumptions.

#### Accounting for the 3 Cases

For Case 1 we have to say how the present conditions  $[n \subset t; e \subseteq t]$  arrive at expressing habituality. And show that, to arrive at the marked reportive reading, presuppositions would have to be accommodated making the reportive reading be predicted as more costly.

The speaker's perspective is trivial for this Case. (S)He wants to convey that, in the interval which the utterance time is a part, Fred swam a certain amount of times perhaps with regular frequency. The proposed, non-reportive, conditions for simple present will give him the strongest possible result given what (s)he wants to convey. From the hearer's perspective, upon hearing *Fred swims* and not seeing Fred nor any sign of him swimming at the utterance time (as had been specified for this scenario), (s)he will prefer the habitual interpretation over the reportive or the progressive (the assumption that the speaker is truthful is as good evidence as any). On the other hand, for her/him to hear *Fred swim* and interpret it reportively or as a progressive in this scenario (s)he would have to assume that the event was concomitant to the utterance time (i.e. accommodate presuppositions to that effect) thus those interpretations would also come out more costly.

Now, recall Case 2. At uttering *Fred swims* the speaker A wants to convey the idea that Fred is in the habit of swimming as in Case 1. The event of Fred swimming at utterance time that A is witnessing is enough evidence for the habituality. If speaker A wants to be maximally informative with respect to this context and to her/his communicative intentions, the alternative would be to use the Progressive sentence *Fred is swimming*. However, on any account, it would refer to the swimming event witnessed during utterance time. So to use the be - ing in this situation wanting to convey a habituality (s)he would have to undo the presupposition that had been supplied extra-linguistically by the direct witnessing of the event. Thus, given habituality is what (s)he wants to convey and that the swimming is being witnessed, the be - ing would be more costly.

Suppose agent B, the hearer, has just heard Agent A utter *Fred swims*. Given that, with  $[n \subset t; e \subseteq t]$ , any evidence of Fred swimming is evidence of swimming for the interval, to interpret that the utterance refers to the event being witnessed you would have to add a presupposition to that effect. That makes the interpretation of the utterance *Fred swims* as a progressive more costly.

To put the two perspectives in terms of OT tableaux:

A		Avoid Accommodat.	BeStrong		Avoid Accommodat.	BeStrong
Fred swims	:#* #*					*
Fred is swimming		*	*	sir		
Interpretations		Habitual			Progressive	

The point of view of the speaker starts from an interpretation and finds the expression which is less costly passing through the *BeStrong* square. Optimality is indicated by 'Þ'. The point of view of the hearer starts from the linguistic form and finds an interpretation passing through the AvoidAccommodation square. Optimality is indicated by '3". Each view checks that there is no alternative expression that satisfies the other view and ranks higher than it according to Blutner's definition of weak optimality in (11). The asterisks '\*' indicate the more costly option in relation to the other, given the interpretation. So, as an example, the speaker wanting to convey habituality prefers Fred swims since it is less costly with respect to BeS*trong* and because the alternative expression is more costly from the hearer's perspective too (upon hearing *Fred is swimming* while witnessing the event he would have to accommodate the presupposition that it is not the witnessed event which is being talked about). The hearer prefers to intepret *Fred* swims as a habitual because although they have the same cost from her/his perspective, (s)he assumes the speaker is making the strongest statement possible relative to the condition introduced in the DRS by the expression, thus progressive would be weaker than habitual.

Now for Case 3, where the Agents have extra assumptions. As in the other Cases, *Fred swims* says that somewhere within an arbitrarily long interval which includes the utterance time there was one piece of evidence of swimming by Fred that serves as support for a generalisation of the behaviour throughout the interval. Suppose speaker A with the assumption that Fred had never swum in his life. By seeing him swim it is verified that Fred has the ability to swim. So for this case the competing sentences are: *Fred swims* and *Fred can/knows how to swim*. The latter sentence will thus come out less costly.

Suppose now the hearer B, who knows that A had assumed until now that Fred could not swim, hears A utter *Fred swims*. To interpret it as a habitual B would have to either: (a) assume – contrary the initial hypothesis for this case – that A had no negative assumptions about Fred's swimming abilities; (b) assume that A held contradictory assumptions about Fred, such as that Fred had and had not swum. Both cases involve accommodating presuppositions to arrive at the interpretation. But at hearing *Fred swims* the habitual interpretation is stronger: it accounts for the fact that the hearer will 'reason' that the speaker revised his assumptions not only about Fred's ability to swim, but changed his mind about Fred not having swum before.

Now suppose B hears A utter *Fred can/knows how to swim*. In that case the fact that they know extra-linguistically (they see) that Fred is swimming is evidence for the ability, so no accommodation is necessary, the presupposition is bound extra-linguistically. On the speaker's perspective the ability reading is also stronger because it describes the explicit context more fully.

## (15) Tableau 2

		Avoid Accommod.	BeStrong		Avoid Accommod.	BeStrong
Fred swims		*	*	#>	*	
Fred can swim.	59°				*	*
Interpretations		Fred is able to swim		H	Fred frequently swims.	

This section has shown how conditions [n  $\subset$  t; e  $\subseteq$  t] and the bidirectional OT framework can be made to capture the habitual use of simple present.

#### Conclusion

This paper argued for a non-reportive approach to present tenses which integrates semantics and pragmatics. By dealing with core cases still in a programmatic\ way, it argues for changes in central assumptions about the semantics of verbs.

#### ABSTRACT

This paper presents a theory of the semantics and pragmatics of present tenses. In DRT, and throughout the literature in the field, simple present tenses are treated reportively: they introduce a condition saying that the time of utterance and the interval for which the eventuality is claimed are identical. That renders the correct interpretation for sentences where the eventualities are states. In sentences where the eventuality is an event, the habitual meaning of present tense has to be captured by adverbial(-like) operators. I will argue for a non-reportive treatment of simple present event sentences, where the utterance time is a proper subpart of the interval the eventuality is claimed for. The habitual and the sportscaster values of present tenses will be rendered in the interaction of the non-reportive condition with Gricean principles within an OT Semantic framework.

Key-words: present tenses; (non)-reportive; semantics-pragmatics interface.

#### RESUMO

Este artigo apresenta uma teoria para a semântica e pragmática dos presentes simples. A DRT e a literatura em geral vêem os presentes simples como "reportivos": trazem para a representação uma condição dizendo que o momento de fala e o intervalo ao qual a eventuality se sobrepõem são idênticos. Esse tratamento engendra a interpretação correta para sentenças em que a eventuality é um estado. Em sentenças em que a eventuality é um evento, a habitualidade como valor semântico tem de ser capturada por operadores de natureza adverbial. Eu vou defender uma caracterização das sentenças com presentes simples em que o momento de fala é um subconjunto do intervalo ao qual a eventuality se sobrepõe. Valores semânticos "não-reportivos" (i.e., disposicionais) e valores semânticos reportivos (como o "estilo narrador esportivo") serão ocasionados pela interação da [n ⊂ t] introduzida pelo presente simples com princípios griceanos modelados de acordo com a semântica da teoria da optimalidalidade.

Palavras-chave: presente simples; (não)-semelfactivo; interface semântica-pragmática.

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