

Integrating tense, aspect and genericity*

Diana Santos
Grupo de Linguagem Natural do INESC
INESC, Lisboa

1. A common ground

I want to argue here for an integrated treatment of aspect and genericity. My primary motive was the semantics of Imperfeito, a past tense in Portuguese whose main meaning seems to be habitual. (The same happens with simple present both in English and in Portuguese. However, this fact has remained in the shadow due to the notion of "atemporal" truths often invoked to describe the English present.) This seems to indicate clearly that habituality is an aspect, and furthermore an important one for the Portuguese tense and aspect system.

The second motive was the study of a recent overview on genericity [Krifka et al. 92], where much more than I expected implicitly concerned aspect. I thus started to investigate several possible points of contact between tense & aspect and genericity, two traditionally separate fields of linguistics. The first reflections on this matter can be found in [Santos & Viol 93], where, however, only English was discussed. In this paper, I present some more data and a detailed analysis of several facts concerning the Portuguese tense system. I shall nevertheless provide an overview of the conclusions in the paper mentioned above (Sections 2 and 3).

2. The same linguistic subsystem

In [Santos & Viol 93, Chapter 3] we argued that the same grammatical subsystem is used for both tense & aspect and genericity. First, we showed that [Krifka et al. 92], which is purportedly an introduction to genericity, resort essentially to lexical aspect in the introduction of the subject matter: (1) they contend that sentences can be subdivided into generic and particular ones, and that generic sentences have a stative flavor; (2) they use the aspectual class of the predicates to subclassify generic sentences, as can be seen in their classification:

	episodic predicate	stative predicate	episodic stative predicate
generic	habitual	lexical-char. dispositional	
not generic	episodic	lexical-char. non-dispositional	episodic stative

Aspect is thus an integral part of genericity, and, from a practical point of view, a sound and decidable aspectual classification is a precondition for concrete genericity studies.

We overviewed then several linguistic devices, such as tenses, temporal clauses (in particular *when*-clauses), arguments of the clause, temporal adjuncts and quantification, just to conclude that there is no separate grammatical system to convey habituality or genericity. To give a flavor of that discussion here, I will discuss the relationship to nominal quantification. On one hand, the influence of plurality for the aspectual classification of a sentence is well-known since [Verkuyl 72], cf.

John built dams. We pedaled over bridges. (activity or state (habitual))

John built the dams. We pedaled over the bridges. (accomplishments)

On the other hand, the kind of plurals at stake can also help to decide whether a sentence is generic or not, as in

Dodos did not fly. (generic)

The dodos did not fly. (particular)

In general, decisions as to kind denotation of (bare plural) arguments can have an impact in the aspectual classification of the sentence:

M.P.'s protest at embassy. (accomplishment or state (habitual))

Optimists win. (achievement or state (habitual))

[Carlson81] has explained the analogies between the verbal and the nominal domains by proposing that the distinction between definite and indefinite quantification is at work in both cases. In fact, if one maps situations into objects, one finds that events are countable, processes are mass, and states are abstract (see [Bach86, Sandström 93]). Given this parallel, we proposed

in [Santos & Viol 93] that explicit nominal quantification also has a role in the determination of the aspectual value of the whole sentence, in that quantifiers like *most*, *few* and *no* could be (at least partially) responsible for generic readings. In fact, *all*, *most*, *few* and *no* seem to be the nominal counterparts of the sentential *always*, *usually*, *rarely* and *never*, which are widely mentioned as inducing genericity¹.

3. Advantages of an integrated treatment

In [Santos & Viol 93], we addressed the two questions:

- Can the study of genericity also contribute for the study of tense and aspect?
- What have tense and aspect researchers had to say about genericity?

By comparing the two domains, we reached some interesting conclusions, namely, a new view of states and of activities, that I will elaborate below.

3.1. Statives re-analysed: the "stative paradox"

I believe that under the stative label two different realities have been hiding for long, and I dubb them **permanent** versus **temporary** states. Roughly, the first describe a property, an essential fact about something or someone, a characterizing feature; the second describe a contingency, a state of affairs, a temporary fact.

There have been other proposals for a subclassification of states: I have just described [Krifka et. al. 92]'s three kinds (lexical-characterizing, habituals, and episodic statives); in [Moens 87], also four kinds of states are mentioned: consequent, progressive, habitual and lexical, distinguished in terms of the linguistic process associated with them. Furthermore, in [page 52] he mentions that states that express inalienable properties behave somehow differently than "ordinary" states, in that they resist combination with *for-* or *until-* adverbials:

? *I was quite tall until I met Harry.*

? *The cepteryx was a mammal for several centuries.*

The dichotomy permanent/temporary is also invoked in connection with the *ser/estar* distinction in Portuguese and Spanish: In *Ele é maluco/ Ele está maluco* (He is mad), the sentence with *ser* denotes a property of "him", while the sentence with *estar* denotes a temporary state "he" is in.

This very same distinction has also been invoked to explain the varying acceptance of progressive with English states, see [Bach 81]'s examples:

I live in California/ I am living in California.

Two plus two equals four. / Two plus two are equalling four.*

In the first pair of sentences, progressive highlights temporariness. In the second, a permanent state has no interpretation where temporariness can be called to play a role.

In fact, in tense and aspect studies within the logical semantics framework, two conflicting views of states have subsisted, and according to me, both with convincing arguments. They are simply a partial view, since each theory neglects the other kind of states (and statives).

For the view held in e.g. [Carlson 81], states are attributed the property of being true at moments of time (extendible homogeneously to intervals), in opposition to the other aspectual classes. The examples show that the adherents to this view are dealing mainly with what I call temporary states: *be a full grown man, remember, stand*. The other view reflects the intuition that basically states are independent of time, while events are not, since they presuppose time to be actualized. [Bach 81, page 71] says: "states have an atemporal and abstract quality", and later talks of "the atemporality of states". It is obvious that the states that qualify here are what I call permanent states: *love John, know Physics, equal, know the answer, believe that*.

Now, we can state the "stative paradox": How can, in English, both the simple present and the progressive result in a state while constituting at the same time a well-known minimal aspectual pair? In fact, [Vlach 81] and [Moens 87], among others, argue that the progressive has a stative character, while [Krifka et al. 92] mention that the present tense is an inducer of genericity (habituality) and that habitual sentences are aspectually stative.

The solution of this paradox is the use of two kinds of states, and consider progressives as denoting temporary states, and habituals permanent states. Both analyses are thus tenable. Further examples that motivate this separation will be given in the remainder of this paper.

3.2. Generics and activities

Two basic varieties of genericity are acknowledged: reference to a kind, and propositions expressing a generic property. These tend to be expressed in sentences either with stative predicates (called lexical-characterizing) or with activity ones (in which case they are habitual).

I contend that activities are thus more inherently habitual (or easier to read habitually) than other aspectual classes. Events, on the other hand, have to be "forced" to be activities before they can have an habitual interpretation, cf. *He works at INESC, He runs to school, He dances, ?He kills ants*. That is, an activity only behaves as such when it is used in the progressive². When the progressive is not present, an activity has a generic flavor or is unacceptable (if we refuse to interpret ant-killing as a profession or hobby). This behavior will be explained below.

4. The proposal

Given that states and activities are so intimately connected with genericity that they cannot be treated separately from habituality, I propose to study generic and non-generic sentences at the same level. I will start by an overview of formalizations of habituals. Then I will describe in some detail [Moens 87]'s aspectual network, and its revisions, before I actually use (my version of) it to give a description of several Portuguese and English tense and aspect phenomena.

4.1. Formalizing habituals

In the modern literature on tense and aspect, it is common to consider habitual interpretation a separate problem and neglect it. Model theoretic analyses of habituals are rare. [Carlson 81] exemplifies one such, handling habituality as a second semantic interpretation, brought about by aspectual rules of interpretation that "reduce the truth of a sentence on the relevant secondary sense to the truth of the same sentence in its basic primary sense in periods related in a systematic way to the period of evaluation" [page 42].

Interestingly, he proposes a distinction which is generally neglected: the one between iterative interpretation, habitual interpretation **and** dispositional interpretation. Carlson states "a habit may or may not involve a disposition, but a disposition need not be manifested in a habit". He classifies both iteratives and habituals as activities, but seems to view dispositions as states

Another proposal, which has the merit of trying to encompass a wide range of temporal-aspectual phenomena, is [Moens 87] aspectual network⁴. Moens models aspect changes as transitions in a network whose nodes represent aspectual values. Habitual states are treated on a par with the other states and with events, therefore, one node stands for habitals. Of transitions resulting in an habitual statement, Moens says "English has no explicit markers and thus can be made freely" [page 51]. A closer inspection of the aspectual network reveals that habitual states have to come out from points⁴, which in turn could have originated from achievements, accomplishments or activities.⁵

Moens mentions the fact that habitual states can be turned into an activity, which can then combine with the progressive auxiliary, denoting "habits in progress" [page 62]:

Max was running a mile in less than 4 minutes until he bought a new watch.

I was walking to work last winter.

He also argues that habitals are stative by applying his most reliable stativity criterion, namely, the accessibility test with punctual temporal expressions [page 99]: a stative expression overlaps with the time described by the adverbial, while iterated activities have to be read inchoatively (cf. last sentence).

When I last saw Harry, he took two lumps of sugar in his tea.

When I met Richard, he sold 2 cars a day.

When I came in, Tina played the sonata several times.

4.2. Moens' aspectual network

4.2.1 The original proposal

The nodes. [Moens 87, page 94ff] considers his aspectual network to be classifying propositions, and chooses as basic propositions of English those denoted by sentences in the simple past, with subjects syntactically and semantically singular. However, he also mentions that "the network can be used to classify all these linguistic units" (smaller units than sentences, such as verbs or verb phrases), by actually classifying sentences whose rest of the constituents does not bring any aspectual changes.

The ontology. Each node represents an aspectual class, of which Moens considers five distinct ones (see previous note). An aspectual class is defined in terms of a nucleus, which maximally comprises a preparatory phase, a culmination point and a consequent state. Aspectual class is equated with event type. Changes in aspectual class add or delete parts to events.

The transitions. The network specifies the transitions among aspectual classes that are possible in English. ([Kent 92] calls them transition types.) Transitions correspond to aspectual operations, which are brought about by the existence of some morphosyntactic device, such as the perfect, the progressive, or a *for*-adverbial. Moens describes specific linguistic operators in a functional way: OPERATOR: aspectual class 1 ---> aspectual class 2. One important detail of Moens' framework is the existence also of unmarked transitions, i.e., transitions that can be made without an explicit clue. In fact, Moens proposes two different kinds of unmarked transitions: (1) the ones brought about by **coercion** (also a key concept in his theory, describing a change of aspectual class brought about by the application of an aspectual operator whose definition requires a different kind of input) and (2) transitions unmarked "all the way down", in which an expression is interpreted as belonging to a different aspectual class without any objective operator to license it (incidentally, this is how Moens handles habituality, see above, section 4.1.).

4.2.2. An example

Moens does not explicit the aspectual import of tense⁶. Nevertheless, I chose to exemplify the import of present tense in his framework, since I believe that tenses are carriers of aspect as well. In my view, the English simple present (in its habitual sense) changes activities into habitual (which I take to mean permanent) states, i.e., PRESENT: activities ---> permanent states. Let us analyse the simple sentence *John runs*. *run* is an activity, since it corresponds to the basic proposition *John ran*. The singular subject does not change aspect, so *John run* is still an activity, and, according to this analysis, simple present turns it then into a permanent state.

On the other hand, the network does not allow for unmarked transitions from accomplishments into activities, and this is how the unfelicity of *John builds a house* is accounted for. Present tense applies to sentences with an accomplishment verb, for instance in

the case *John builds houses*, only if they have been coerced into an activity before, as in this case by the plural object. Moens' "points", on the other hand, allow for unmarked transitions into activities, and therefore *He hiccups* can get an habitual interpretation. The import of the present tense in this case is twofold: Points get coerced into activities that then get transformed into permanent states.

4.2.3. Some revisions

First of all, the ontology in terms of missing/existing parts of an entity nucleus seems to be satisfactory only as far as non-states are concerned: Even though, at first sight, a schema comprising a part of each main aspectual class (respectively, an activity, an event, and a state) cannot fail to be right, the consequent state is not allowed to occur without a culmination, which makes it unusable for modelling states in general (i.e., apart from consequent states). Therefore, states have no real treatment in Moens' theory. According to [Herweg 91], this is a typical shortcoming of an event based approach.

Second, the fact that basic propositions already carry tense does create a problem for other languages where there is not such an aspect neutral tense. (In fact, it is not even settled for English that past simple be such a tense. I challenge this claim in section 4.3.4.). For all purposes, the use of the network for computing the final aspect could start from a classification of verbs, and have arguments change aspect instead of treating some arguments different from others. (Let me clarify this. Moens has plural arguments changing aspect but singular not. One could also think of singular arguments to activity verbs making them accomplishments (as in *run to the store*), much in the same way of having plural arguments modifying accomplishment verbs making them activities as in *build houses*).

As detailed in [Santos 91b], I believe aspect to be a property of verbs, and, because verbs are essential parts of clauses, inherited by the clause level⁷. I contend moreover that, as more complex expressions containing a verb are being built, aspect values can be produced which are not available at the lexical level. One such non-lexical aspect is precisely habituality, another is

plurality. Seeing the aspectual network as an aspect computing device, only to final nodes of such a process does one need to give a semantic interpretation.

Thirdly, the matter of unmarked transitions is widely controversial. First, it encompasses an empirical claim: [Kent 92] noted that without a broad-coverage analysis of the English tense and aspect system, one cannot decide whether a given transition type is unmarked or marked. Second, the "all the way down" unmarked transitions could be modelled as well as ambiguous aspect classes, as I proposed in [Santos 91b]. Interestingly, this was the path taken by other researchers that tried to formalize [Moens 87] approach, namely [Lascarides 88] and [Kent 92].

The existence of free transitions naturally poses problems for the implementation or even formalization of the aspectual network, because it introduces an element of indeterminism and withdraws from evaluation. I will therefore only use transitions licensed by grammatical or discourse clues. I consider coerced transitions licensed (even though in an "oblique" way) by the operators who coerce them.

However, as far as coercion is concerned, one could also wonder whether an operator defined for more than one output class would not do the same job. I.e., for the example of Section 4.2.2., one could have PRESENT: points ---> permanent states as well. Still, generally one interpretation seems to be more natural or intuitive than the others, so I will continue to use the notion of coercion. (Note, by the way, that Moens accepts (and often resorts to) repeated coercion, i.e., trips around the network invoking more than one unmarked transition.)

4.3. The new (partial) aspectual networks

Given the revisions proposed above, I proceed to present two aspectual networks, a revised one for English and one for Portuguese. Instead of describing transition types, though, I will concentrate on particular aspectual transitions, labelled by the linguistic markers⁸.

My point of departure are the following aspectual classes, which, with the exception of the two kinds of states, have been described in more detail elsewhere [Santos 91a,b]. I make the simplifying assumption that the same aspectual classes are common to English and Portuguese (even though not obviously their members):

temporary states (location in time and space required): *to be hungry, in love, in Paris*
accomplishments (location in time and space greater than a point): *to build a house, write a book, crush an orange*
permanent states (no location required): *to be mad, black, male*
achievements (location in time and space punctual): *recognize, win*
activities (location in time and space greater than a point): *to run, work*
dynamic states (like temporary states or activities): *to live in Paris, stand, hang*
acquisitions (like achievements or temporary states): *to remember, know*
points (location in time and space punctual): *to tap, wink, cough*
series (location in time and space greater than a point): *to crush oranges*

4.3.1. The progressive

The English progressive makes a temporary state out of accomplishments, activities, dynamic states and series. Cf. *he is building a house/houses, he is running, he is living in Paris*. So it is modelled as PROGRESSIVE: activities---> temporary states, while accomplishments, series and dynamic states are defined as being coercible into activities, licensed by the progressive. Apart from the refinement of temporary states, this is also Moens' rendering (see pages 55ff).

To substantiate my claim that the progressive results in temporary states, note that (1) both the sentences involving the (present) progressive and those which are lexically temporary states are read as involving an implicit NOW; (2) in the past tense, both accept punctual temporal adverbials; (3) both do not accept the progressive, except with a three step coercion of the (lexical) states into points, then series and finally activities: cf. *He's being stubborn*.

The Portuguese progressive does not differ remarkably from its English counterpart. However, it is worthwhile to emphasize that its auxiliary *estar* is, when main verb, the prime example of a temporary state (as opposed to *ser*). There are nevertheless two differences between the two languages. One concerns the 'futate' progressive, not available in Portuguese, which will not be discussed here; the other shows in the lexical class of 'dynamic states' which is far more numerous in English, since it contains all position verbs (e.g. *sit, stand, hang, lie*), to which the progressive applies yielding a temporary state. The corresponding verbs in Portuguese (*sentar, estar de pé, pendurar, deitar*) belong to the class of achievements, and are turned into the corresponding temporary states by another linguistic device, the passive with *estar*:

Ele estava sentado à janela. He was sitting by the window.

4.3.2. The present tense

I have analysed above (section 4.2.2.) the English present tense as creating a permanent state, when applied to activities, dynamic states and series. Cf. *He dances, he lives in Paris, he coughs*. Portuguese present tense behaves like the English one in this respect⁹.

It remains to be argued that habituais do behave as lexical permanent states. For this purpose, note that, in both cases, (1) only scope/durative adverbials are allowed (no punctual ones); (2) the sentences do not need any temporal anchoring, that is, they are quite easily read as properties essentially independent of time or location.

4.3.3. Adverbials with *for*, *durante* and *por*

For-adverbials transform activities and temporary states into accomplishments. Cf. *to be in Paris for two years, to run for two hours*. [Moens 87, pages 50ff] models *for* as FOR: activities ---> accomplishments. Points and temporary states are coerced into activities, and I assume that accomplishments and achievements are priorly coerced into points. Note that the specification of the kind of state models adequately the before unexplained fact that only some states could be coerced into activities.

Portuguese translates *for*-adverbials in a threefold manner: when accompanying present perfect, by present and *haber*-clauses; otherwise, with the prepositions *durante* or *por*. Let us look at some examples involving these prepositions: First of all, while they are felicitous in roughly the same contexts, there is one important exception, noted in [Santos 91a]:

Ele saiu por dez minutos. He left for then minutes.

This sentence is felicitously uttered any time after "he" left, while the corresponding one with *durante* is only allowed after the ten minutes passed and "he" is back again. English *for* has this same behavior, as noted in [Moens 87, page 52], but he discards it as an unrelated use of *for*. My analysis of the example presented is as follows: the achievement is coerced into its result state (namely, "be out/away"), which is of a temporary nature. Thus FOR/POR: temporary states --> accomplishments. In addition, I contend that this description encompasses all uses of *por*, which most naturally occurs with states, activities, dynamic states and acquisitions:

Ele foi professor por dois anos. He was a teacher for two years.

Ele viveu em Lisboa por dois anos. He lived in Lisbon for two years.

Ela trabalhou na IBM por dois anos. He worked for IBM for two years.

Ela correu por dois minutos (mas depois abrandou). She ran for two minutes (but then moved slower)

Ele lembrou-se dela por muitos anos. He remembered her for many years.

To sum up, *por* brings with it the notion of plan and agentivity, and, interestingly, it invokes also a notion of temporariness. Conversely, I analyse *durante* as an operator with the following definition: DURANTE: activities ---> accomplishments. This explains why for dynamic states the difference among *durante* and *por* is negligible, while achievements cannot be input to *durante* through coercion into their result state. The same also happens with acquisitions.

Ela correu durante duas horas e meia. He ran for two and a half hours.

Ele viveu na Holanda durante três anos. He lived in Holland for three years.

Ele fez sapatos durante dezoito anos. He made shoes for eighteen years.

Ela foi missionária durante dois anos. She was a missionary for two years.

4.3.4. Simple past tenses

English past simple, in my opinion, turns accomplishments into achievements, cf. *he built a house, he was in Paris for two years, he ran for two hours*. This is clearly in disagreement with [Moens 87] where past simple is aspect neutral 'par excellence'. On the other hand, I claim it does not modify aspect for states (temporary or permanent): cf. *He was a sailor, He was sitting at his desk*. Activities, in turn, have to be coerced to accept a past simple, and they can be so in two ways, either into habitual states or into accomplishments. Cf. *He ran* with the two possible continuations: *when he was studying at IST* or *as we had arranged beforehand*.

The output of Imperfeito is a permanent state, and activities are its departing point. IMPERFEITO: activities ---> permanent states. In contrast, all accomplishments have to be pluralized. Achievements and points have to be coerced into series and then into activities.

Ele lavava carros. (He was a car-washer.)

Ele dançava no Bolshoi. (He used to dance in Bolshoi.)

Ele reconhecia as pessoas sem esforço, mesmo que não as visse há anos. (He would recognize people effortlessly, even when he had not seen them for years.)

Ele batia à porta com estrondo. (He used to knock at the door noisily.)

As far as states are concerned, Imperfeito is aspect neutral (cf. *Ele era parvo* and *Ele estava parvo*, the permanent and the temporary version of *He was stupid*), respectively.

Perfeito, on the other hand, seems to change states and activities into events, while leaving events unchanged. As far as states are concerned, it makes them temporally bounded, which implies a change of state, and, therefore, an event.

Ela esteve doente. (She was temporarily sick but later she recovered)

Ela foi Católica. (She has been a Catholic but changed her creed)

In addition, it coerces the habitual state into a temporary state. PERFEITO: temporary state ---> achievements. Activities in Perfeito are in general ambiguous between a habit that is no longer (i.e., a permanent state, which gets turned into the event of having changed), and a bounded occurrence of the activity, i.e., an event, as is the case with Past simple.

Ele correu (na Fórmula 1). He has been a F-1 driver once or He drove in a contest.

4.3.5. Present perfect and Pretérito Perfeito Composto (PPC)

As far as the English present perfect is concerned, I follow [Sandström 93, pages 120ff] in ascribing it two analyses. The first represents the so-called 'resultative perfect': PRESENT PERFECT: achievements ---> permanent states, and is commonly described as asserting a result state. By making it a permanent state, I account for its unfelicity with temporal adverbials, e.g., **he has written a book last year*. The other interpretation of the English perfect, referred to in the literature as 'extended now' is given as PERFECT: activities ---> temporary states. This explains why the following are felicitous English sentences: *He had been living in Boston for three years in the 1st September 1992/that evening/now*.

Looking now at the Pretérito Perfeito Composto (PPC), it is interesting to note that [Comrie 85, page 81] describes it as habitual. I see it rather as an operator mapping series into

temporary states (holding at a period that stretches until 'now'), i.e., PPC: series ---> temporary states. The motivation for this analysis can be seen in the following examples:

Ele tem comprado muitos livros. He has been buying many books.

Ele tem andado cansado ultimamente. He has been tired lately.

Ele tem estado em casa. He has been at home lately.

Ele tem corrido. He has been running lately.

The last three examples require the notion of a phase for states and activities (unindividuated event types), proposed in [Herweg 91] and [Sandström 93]. These are coerced into points by the existence of the PPC, and then turned into series. Given that the last example sentence involves a set of distinct runs, it motivates the separation of the two classes of activities and series.

5. Final remarks

What I presented above is an analysis of tenses and temporal devices in simple sentences. The narrative realm behaves differently, as is clearly demonstrated by [Sandström 93]. Therefore, the fact that stative *Quando*-clauses in Imperfeito do not denote an habitual state, e.g., in *Quando ele construía a casa, o telhado desabou* (when he was building the house, the roof fell down), does not constitute a valid counterexample to the theory.

Second, it should be clear that I have only discussed the aspectual import of tenses in this paper. Their referential, deictic and anaphoric, use was not even mentioned.

I hope to have presented convincing evidence for a description of natural language that treats tenses and other aspectual devices at the same level as habituality. By doing this, I also hope to have given an adequate description of some peculiarities of English and Portuguese within such an integrated framework. Evidently, a lot of work remains to be done, especially concerning the empirical validity of my claims.

References

- Bach, Emmon. "On Time, Tense, and Aspect: An Essay in English Metaphysics", in Peter Cole (ed.), *Radical Pragmatics*, Academic Press, 1981, pp.63-81.
- Bach, Emmon. "The algebra of events", *Linguistics and Philosophy* 9, 1986, pp.5-16.
- Bennett, Michael. "Of tense and aspect", in Philip Tedeschi & Annie Zaenen (eds.), *Syntax and Semantics, Volume 14: Tense and Aspect*, Academic Press, 1981.
- Bennett, Michael, & Barbara Partee. "Toward the logic of tense and aspect in English", Indiana University Linguistics Club, 1978.

- Carlson, Lauri. "Aspect and Quantification", in Philip Tedeschi & Annie Zaenen (eds.), *Syntax and Semantics, Volume 14: Tense and Aspect*, Academic Press, 1981.
- Comrie, Bernard. *Tense*, Cambridge University Press, 1985.
- Cooper, Robin. "Tense and discourse location in situation semantics", *Linguistics and Philosophy* 9, 1986, pp.17-36.
- Freed, Alice F. *The Semantics of English Aspectual Complementation*, Dordrecht: D.Reidel, 1979.
- Herweg, Michael. "A Critical Examination of Two Classical Approaches to Aspect", *Journal of Semantics*, Volume 8, Number 4, 1991.
- Krifka, Manfred, Jeff Peltener, Greg Carlson, Alice ter Meulen, Godehard Link, Gennaro Chierchia. "Genericity: an Introduction", version 5 (final), 10/21/92, to appear.
- Lascarides, Alexandra. "A Formal Semantic Analysis of the Progressive", PhD dissertation, University of Edinburgh, 1988.
- Moens, Marc. "Tense, Aspect and Temporal Reference", PhD thesis, University of Edinburgh, 1987.
- Moens, Marc & Mark Steedman. "Temporal Ontology and Temporal Reference", *Computational Linguistics*, Vol 14, Number 2, June 1988, pp.15-28.
- Sandström, Görel. *When-clauses and the temporal interpretation of narrative discourse*. PhD dissertation, DGL-UUM R 34, Department of General Linguistics, University of Umeå, 1993.
- Santos, Diana. "Contrastive tense and aspect data", INESC Report No. RT/57-91, October 1991.
- Santos, Diana. "Para uma classificação aspectual dos verbos portugueses", *Actas do 7. Encontro da Associação Portuguesa de Linguística* (Lisboa, 7-8 October 1991), pp.389-401.
- Santos, Diana & Wilfried Meyer Viol. "The generic spell", INESC Report No. RT/38-93, August 1993.
- Vendler, Zeno. *Linguistics in Philosophy*, Ithaca: Cornell University Press, 1967.
- Verkuyl, Henk. *On the Compositional Nature of the Aspects*, Dordrecht: D. Reidel, 1972.
- Vlach, Frank. "The semantics of the progressive", in Philip Tedeschi & Annie Zaenen (eds.), *Syntax and Semantics, Volume 14: Tense and Aspect*, Academic Press, 1981, pp.271-92.

* This paper would not exist without the visit of Wilfried Meyer Viol to INESC who made me aware of the world of generics. I thank Eva Ejerhed for bringing Sandström's dissertation to my attention, and Jan Engh for his valuable comments. I am grateful to Junta Nacional de Investigação Científica (JNICT) for a PhD grant.

¹[Bennett & Partee 72, page 26] even describe one sense of *usually* as 'most a out of every b'. And [Bennett 81] analyses bare plural generics by postulating a "sweep" transformation that erases precisely this kind of frequency adverbs.

²Of course, for this remark to make sense, one has to share the opinion that habituals are not aspectually activities. This is my view, but for instance [Carlson 81] treats habituals as activities.

³A detailed presentation of this framework will be given in the next section. Here I am only concerned with his treatment of habituals.

⁴i.e., punctual non-resultative events such as *tap*, *wink*, etc.

⁵Even though Moens uses a terminology of his own, I will use throughout this paper the Vendlerian terminology [Vendler 67], with the addition of *points* from Moens and later *series* from [Freed 77].

⁶In fact, in [Moens & Steedman 88], it is even stated that tenses have a rather different character, being concerned with temporal reference.

⁷[Moens & Steedman 88, page 17] also end up talking about the "uninstantiated propositions" associated to verbs.

⁸Due to lack of space, this paper will omit the figures and only present some transtions, so the networks are only partial.

⁹With the proviso that the import of *have*-clauses is first dealt with, since *have*-clauses make the sentence particular, located in time, and thus non-generic and non-instrumental.