Simple Tense

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1. Introduction

In this paper, I want to discuss some properties of the Simple Present tense in English, and compare it to its equivalent in a number of other European languages. It turns out that the English tense is rather special in that it can only refer to now with eventive verbs under a fairly limited set of conditions. These conditions can be summarised under the requirement that the event at issue have Very Short Duration. I shall propose to account for this restriction by requiring that only events that fit into the short duration of the speech time and do not extend beyond it are compatible with the Simple Present in English. In other languages the event does not need to be contained in the speech time interval. Next, I shall look at the use of the Simple Present with stative verbs, and argue that states are compatible with the Simple Present because the have point duration, and therefore are invariably contained within the speech time interval. Certain facts relating to durational adjuncts will reveal a contrast between English and other languages that is highly reminiscent of the contrast found with eventive verbs, and I shall show that they can be accounted for by the same assumptions. Finally, I shall devote some comments to the issue of generic sentences, which combine eventive verbs with a stative interpretation. I shall argue that they should be treated on a par with Individual Level Predicates. First, however, I shall start out by sketching a few background assumptions concerning the nature of tense and aspect in general (section 2). Section 3 deals with the use of the Simple Present with eventive verbs. States will be dealt with in section 4, and generic sentences in section 5.

2. Background

I adopt a Reichenbach-inspired system for the representation of Tense, which assumes three time points and two relations.

(1) time points: S, R, E
relations: precedence (_)
simultaneity (,)

I deviate from Reichenbach, however, in that I shall assume two conceptually different levels in the analysis, which I take to coincide with the tense-aspect distinction (see also Comrie 1985:6).[2] I take the relative ordering of S and R to be determined by tense, whereas the relationship between E and R is a matter of aspect. Aspect itself is a concept which involves two rather distinct notions, one being aspectual class (internal aspect), and another grammatical aspect (external or presentational aspect). Schematically, this gives the following picture:

(2)	**Tense**		**Aspect (external)**	**Aspect (internal)**
	Present:	S,R	Simple	state
	Past:	R_S	Progressive	activity
	Future:	S_R	Perfect	accomplishment
				achievement

The internal aspect (or *Aktionsart*) concerns the well-known four-way aspectual class distinction familiar from the work of Vendler (1967) and Dowty (1979). As far as external aspect is

concerned, we can distinguish simple, progressive and perfect aspect; formally, the latter two are expressed by a combination of an auxiliary and a bound morpheme (BE+ING and HAVE+EN, respectively), whereas the former is characterized by the absence of any grammatical marking.[3] Perfect and progressive aspect may combine to yield the perfect progressive. Tense in English is expressed by bound morphemes for Present and Past, and a free morpheme for the Future (WILL). The bound morphemes may be applied to the free morpheme, yielding a present future and a past future tense.[4] The full system is represented in the table below:

(3)

<table>
<tr><th></th><th>Pst</th><th>Fut</th><th>Simple</th><th>Perfect</th><th>Progressive</th></tr>
<tr><td rowspan="2">Pres</td><td rowspan="2">–</td><td rowspan="2">–</td><td rowspan="2">V
she works</td><td>HAVE V+en
she has worked</td><td>BE V+ing
she is working</td></tr>
<tr><td colspan="2">HAVE BE+en V+ing
she has been working</td></tr>
<tr><td rowspan="2">Past</td><td rowspan="2">+</td><td rowspan="2">–</td><td rowspan="2">V+ed
she worked</td><td>HAVE+ed V+en
ashe had worked</td><td>BE+ed V+ing
she was working</td></tr>
<tr><td colspan="2">HAVE+ed BE+en V+ing
she had been working</td></tr>
<tr><td rowspan="2">(Pres) Future</td><td rowspan="2">–</td><td rowspan="2">+</td><td rowspan="2">WILL V
she will work</td><td>WILL HAVE V+en
she will have worked</td><td>WILL BE V+ing
she will be working</td></tr>
<tr><td colspan="2">WILL HAVE BE+en V+ing
she will have been working</td></tr>
<tr><td rowspan="2">(Past) Fut</td><td rowspan="2">+</td><td rowspan="2">+</td><td rowspan="2">WOULD V
she would work</td><td>WOULD HAVE V+en
she would have worked</td><td>WOULD BE V+ing
she would be working</td></tr>
<tr><td colspan="2">WOULD HAVE BE+en V+ing
she would have been working</td></tr>
</table>

The mapping of these three levels onto syntactic representations is straightforward: Tense is represented at the highest level, i.e. in TP. External aspect occupies a lower projection, call it AspP. Tense and external aspect combine in a completely predictable way in English, as the above table shows. The internal aspect, finally, is a property of the VP (Verkuyl 1972).

As far as the interpretation is concerned, I assume that the semantic contribution of Tense is to specify the relationship of the speech time S to a reference time R. The semantics of external aspect is to specify how E relates to R. Take R to be a point on the time line, represented as ------> in (4). I take E itself to be not so much a point on the time axis, but rather a representation of the aspectual class of the event. Thus an activity like *read* or *run* has no inherent endpoint and has dynamism. The latter property is represented by the dots °°°° in the representation in (4). The absence of boundaries to the event is represented by the absence of the symbols ⌞ (which marks the start of an event) and ⌟ (which marks its end).

(4) Progressive: ----------R----------> John was/is/will be reading.
°°°°°E°°°°°

Progressive aspect presents an event as ongoing, i.e. it implies that E has a certain extension before and after R, i.e. that E surrounds R; the progressive is furthermore restricted to dynamic events; (4) graphically depicts these properties of extension and dynamism. Note that these two

properties are properties of both the internal and the external aspect; put differently, in this case, the external aspect does not add anything that is not already present in the internal aspect of the event. On the other hand, the former does not conflict with the latter either. This is different with the simple (external) aspect, which I shall argue below conflicts with the extension property of the internal aspect, at least as far as most eventive verbs are concerned. Further note that the representation of the relationship between E and R will be identical in the present, past and future tenses: in each case the event E covers an interval extending before and after the reference time. The location of the reference time with respect to the speech time concerns the relationship of R to S, and depends on the particular tense chosen.

The perfect aspect does add something to the internal aspect of the event: it presents the event as terminated at the reference time; this is shown by adding a right boundary to the event in (5):

(5) Perfect: ----------R----------> John had/has/will have run.
°°°°E°°°⌋

Perfect Progressive: ----------R----------> John has been running.
°°°°--E--°°°°

This is true, whether the sentence be present, past or future; as before, the relationship of the reference time to the speech time depends on the tense chosen. The interpretation of the perfect progressive is somewhat more complex, and involves both the aspects of extension and termination, which gives an interpretation like that of a temporary standstill (the dotted line (---) under the timeline in (5) represents stativity). Since neither progressive nor perfect aspect is the topic of this paper, I shall not go into the treatment of them any further here. [5]

3. The Simple Present with non-stative Events

Having outlined the general background that I assume, I now turn to a discussion of the Simple Present Tense. In this section, I focus on eventive verbs. Comparing English with other languages, one observes an intriguing difference, as illustrated below:

(6) *What do you do? I read a book.
(7) Wat doe je? Ik lees een boek. (=(6); Dutch)
(8) a. Sten äter ett apple. (Swedish) (exx. from Giorgi & Pianesi 1997:153)
Sten eats an apple
b. Han skriver et brev. (Norwegian)
He writes a letter
c. Ole kommer. (Danish)
Ole comes
(9) ----------S,R---------->
⌊°°°E°°°⌋

These cases involve accomplishments, i.e. telic events with dynamism, as shown in (9), which, by the nature of their internal aspect, extend beyond R. The Simple Present cannot refer to the present time with eventive verbs in English (with a number of exceptions, to which I return), whereas in a language like Dutch cases like (6) are fine. Cross-linguistically, the behavior of English is exceptional, whereas that of Dutch appears to be exemplary for all the languages of the Germanic and Romance domain (Giorgi and Pianesi 1997:154).[6]

Dowty (1979:167ff), following up on Taylor (1977), suggests that (6a) is ruled out because, on the one hand, activity and accomplishment/achievement verbs denote intervals larger than a moment, and, on the other hand, the time of utterance is always a moment.[7] As Giorgi and Pianesi (1997) note, this explanation fails to account for the data in languages other than English, where combinations of the Simple Present Tense and activity/accomplishment/achievement verbs are possible.[8]

A further problem with both the Taylor/Dowty and G&P accounts is that there is a fairly large and fairly heterogeneous class of exceptions to the generalization that the English Simple Present does not combine with eventive verbs. Although generally mentioned, these are rarely accounted for in the literature in the English present tense. These cases include sports commentary, instructions and demonstrations, stories in the historical present, performatives, plot summaries of plays, novels, movies, etc. The following examples are mostly taken from Swan (1995), except where otherwise indicated:

(10) *commentaries*
Smith passes to Devaney, Devaney to Barnes, Barnes to Lucas – and Harris intercepts – Harris to Simms, nice ball – and Simms shoots!

(11) *stories*
a. So I open the door, and I look out into the garden, and I see this man. He's wearing a pink shirt and a policeman's helmet. 'Good morning,' he says…
b. So I'm sitting there on that bench, reading my newspaper, when this guy walks up to me and starts beating me. Suddenly a man in uniform takes me by the arm and asks me what I'm doing there. (Declerck 1991:89)

(12) *stage directions*
Mallinson enters. The girls immediately pretend to be working hard. William assumes a businesslike air, picks up two folders at random and makes for the door. (Quirk et. al. 1985:183)

(13) *instructions, directions and demonstrations*
a. First I put a lump of butter into a frying pan and light the gas; then while the butter's melting I break three eggs into a bowl, like this…
b. OK, let's go over it again. You wait outside the bank until the manager arrives. Then you radio Louie, who's waiting around the corner, and he drives round to the front entrance. You and Louie grab the manager…
c. 'How do I get to the station?' 'You go straight on to the traffic lights, then you turn left…

(14) *performatives*
a. I promise never to smoke again.
b. I agree.
c. I pronounce you man and wife.
d. We thank you for your recent inquiry. (Quirk et. al. 1985:180)

(15) *here comes… etc*
a. There goes our bus.
b. Off you go!

(16) *plot summaries*
a. In Act I, Hamlet meets the ghost of his father. The ghost tells him …
b. In The Scarlet Letter Hester meets her lover in the forest.
c. In chapter 3, Max builds a house.

Despite giving an initial impression of great diversity, I will demonstrate that, with the exception of (16), they all share the property of describing events which have Very Short Duration (VSD), in a way that may preliminarily be represented as in (17): [9]

(17) ----------S,R---------->
⌊⌋
VSD-E

This is most obvious in a case like (10), where very short events are being recounted as they happen. As Swan (1995:446) observes, for longer actions and situations, the Present Progressive is used, even within the register of sports commentary:

(18) Oxford are drawing slightly ahead of Cambridge now; they're rowing with a beautiful rhythm; Cambridge are looking a little disorganized…

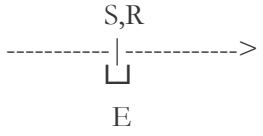
Whereas (10) involves short events that last no longer than the time it takes to describe them, the events in (18) have a longer duration and require the Present Progressive. This invalidates the claim made by Langacker (1982:290) and Michaelis (1998:27) to the effect that, since events like those in (10) are somehow 'stereotyped' or 'scripted', or that they represent 'formulaic occurrences', the usual requirements are relaxed.[10] In the same vein, Schmitt (2001:438) argues that the events in so-called play-by-play accounts (like (10)) lack internal structure, and that they therefore behave like states. Apart from the fact that the events in question certainly do not feel like states, such accounts are questionable because of a case like (18), which shows that events are not randomly compressible in this way. In the account to be presented below, VSD-events fully preserve their dynamic nature, and eventive present tenses in English are principally restricted to VSD-events, ruling out longer ones such as those in (18). I shall come back to this issue below, where I discuss the difference between the actual duration of an event and the manner of presentation of events (i.e. (25) and surrounding discussion).

Stories like (11) likewise show an alternation between Simple Present and Present Progressive, with the former being used for the short events which follow one another in rapid succession and which therefore carry the story forward. The Present Progressive, on the other hand, is used for the events with longer duration, which do not necessarily succeed the other events, and which are easily considered to constitute the background. What is special about these cases, however, is that the events are presented as taking place at the speech time, but this is a fictitious speech time, since the events being recounted are of course in reality past events: "the speaker, as it were, forgets all about time and imagines, or recalls, what he is recounting, as vividly as if it were *now present* before his eyes" (Jespersen 1909, IV, 19—my emphasis, GVW). The speaker pretends to be in the past and views the events from that fictitious past perspective as taking place now. This use of the present as a so-called historic or narrative present is of course not restricted to English. As in the other cases discussed, the speech time and the event time coincide, but the speech time is an imaginary speech time, which is not the actual speech time. A largely similar story can be told about stage directions (12), which describe events being acted out in the fictional universe of the play. Within that universe, however, the events coincide with the time of utterance. The restriction to VSD events also appears to hold here. The same is true of instructions and demonstrations, as in (13). Demonstrations (as in (13a)) typically involve the description of events as they occur. In the case of instructions (i.e. (13b) and (13c)), we rather appear to be dealing with a fictitious speech time, but which, unlike the cases in (11), is situated in the future.

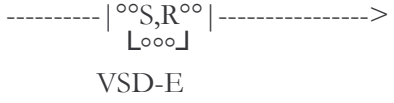
Performatives (14) are another nice case illustrating the isomorphy between the utterance time and the event time: in a very literal way, the progression of the event of pronouncing someone man and wife, for instance, coincides with the utterance time, which itself of course also progresses in time. The examples in (15) likewise involve events which happen simultaneously with the time of utterance.

Cases like those in (10), (11), (14), (15) and (13) seem moreover to invalidate the claim by Goldsmith and Woisetschlaeger (1982) that the Simple Present describes structural properties, not observable phenomena. Whereas I believe that Goldsmith and Woisetschlaeger are correct for a large subclass of the English Present Tense sentences (cf. section 4 below), I disagree with them on the cases just discussed, which describe observable phenomena all right, but those with the special property of having VSD.

How can the restriction to VSD events be accounted for? As far as Dutch/Scandinavian/etc. are concerned, it seems safe to assume that E may extend before and after R, as depicted in (9) above. English presents a more complicated case, in that it is not at all obvious how a distinction could be made between VSD events and others in terms of their relationship to S,R. This is particularly true if we conceive of S as a point with zero duration, or a divider, which divides the time-line into a past and a future portion (Giorgi and Pianesi 1997).

(19)


However short an event is, it will always extend preceding and following S,R, just as in (9). We therefore need to adopt an alternative approach. This approach assumes that S, the speech time, is not to be thought of as a point, but rather as an interval with a certain extension. Needless to say, this temporal extension is very short, but it is nevertheless real. Put differently, S also has the property VSD, rather than being punctual in the mathematical sense, i.e. having zero duration (see also Langacker 1982:286). This seems intuitively plausible: the act of speaking itself is one that takes up a certain amount of time; also, the speech act is dynamic, i.e. each stage of it is different from the preceding and the following stage. These factors imply a certain duration, as I shall argue more extensively below. At the same time, the speech time interval is not arbitrarily long: if a person holds a one hour monologue, the speech time does not have the same extension. Rather, the speech time is a continually shifting interval of minimal length.[11] The restriction to VSD-events observed in the English Simple Present can now be formulated as follows: only events which can be conceived as 'fitting into' the length of the speech time, i.e. which do not extend beyond it, are compatible with the Simple Present in English:

(20)


Formulaically, this can be represented as follows:

(21) English Simple Present tense

$S=R \supseteq E$

Clearly, the requirement that E be contained in S,R is absent from languages like Italian and Dutch, as configurations of the type in (9) are acceptable.

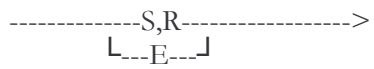
Having formulated the distinction, it would of course be nice to be able to present some deeper explanation for it. A first observation to make is that the difference probably does not reside in any of the properties of the present tense, but should be looked for in the different properties of (external) aspect. This is because I have defined the latter as a specification of how E relates to R, and the relationship of E to R is the domain in which I have just argued that English and non-English are different. In what respect, then, could English simple external aspect be taken to differ from the other languages at issue?

Let us think of the English system of external aspect as involving two binary features, on the one hand extension (before and after R), and completion or termination at R on the other. This gives the following four logical possibilities:

(22)

English	extension	completion
Simple	–	–
Perfect	–	+
Progressive	+	–
Perfect Progressive	+	+

This table gives us a way of approaching the question why the configuration in (9), repeated here, is ruled out in English.

(9)


The negative value for the feature 'extension' in the Simple aspect will imply that E cannot extend beyond the boundaries set by S itself, i.e. must fall within the confines of the speech time, as in (20).

I shall furthermore assume that the other languages at issue have only one binary feature, yielding only two possible categories for external or presentational aspect:

(23)

	completion
Perfect	+
Imperfect	–

In this system, there is no feature 'extension' which could block the configuration in (9); as a result, cases like (7) and (8) are fine. Put differently, the two-category system does not make a distinction between 'simple' and 'progressive' presentational aspect.[12]

A final comment is in order on the issue of the duration of an event. Duration is, first of all, determined by internal aspect. Thus atelic events (activities, eg *run, walk, swim, push a cart, drive a car, tease Mary*) typically lack and end-point and therefore will not be able to occur in any of the VSD contexts sketched above. Telic events may vary in duration, depending, for example, on the size of the internal argument, which provides a measure for the amount, and hence the duration, of verbal activity (eg *run 10 meters* vs *run 10 kilometers, read War and Peace* vs *read the headlines*, etc.; see Vanden Wyngaerd 2001). This fact has its effect on which telic VPs can be construed as being VSD and which cannot, as is shown by the following contrast (e.g. as stage directions):

(24) a. Max sits down on the couch, picks up a paper, reads the headlines, stands up again, and exits.
b. *Max sits down on the couch, picks up a novel, reads *War and Peace*, stands up again, and exits.

A second consequence is that my explanation of (6) ultimately relies on there being a conflict between the properties of the internal aspect (duration) and the requirements imposed by the external aspect (VSD).

But even two identical VPs do not always need to have the same duration. Actual duration of identical VPs is to some extent variable: thus an event like *run a mile* will have a variable duration depending on the speed of the runner, which itself is a function of his or her fitness, the nature of the ground, etc. Such factors consequently allow for a certain degree of freedom in the manner of presentation of an event: the event may be presented as either very short, or as having a certain extension, i.e. as ongoing, as in the following pair, suggested by a reviewer:

(25) a. Magda refuses to let the police in. She closes the door in their face.
b. Magda is refusing to let the police in. She's closing the door in their face.

The reviewer goes on to suggest that manner of presentation rather than actual event duration is the relevant property with the present tense. As the reviewer observes, in (25a) "there is more of a sense of immediacy" than in (25b), which tends to focus more on the internal structure of the event. I would suggest that the sense of immediacy felt in (25a) is due to the fact that the event has VSD, or at least is presented as having VSD. Because actual event duration is to some extent variable, different points of view on an event are possible, and the same event may also be presented as extending beyond the speech time interval, as in (25b). At the same time, not all events have VSD-potential, because the minimal actual duration of some events will, under any circumstance, exceed VSD. For example, there is no way in which events like *run 10 kilometers* or *read War and Peace* could ever appear in the Simple Present, because their actual duration is not compressible in the way required by the present tense (as shown by (24b), for example). In sum, manner of presentation may lead to some amount of variation such as that illustrated by (25), but at the same time such variation is clearly subject to the requirements imposed by the present tense (see (21)).

The above analysis extends to the Simple Past and the Simple Future, with a few differences, however. Tensologically, the Past Tense involves the formula R<S and the Future S<R. As far as external aspect is concerned, one expects the Simple Past and the Simple Future to behave like the Simple Present. At first sight, this expectation is not borne out, as the English cases in (26) do not show the restriction to events with Very Short Duration:

(26) a. Yesterday, I got up, had breakfast, read a book, and then had lunch.
b. Tomorrow, I will read a book.

In these contexts, the event *read a book* is compatible with the Simple Past/Future, in contrast to (6a) above. It has been suggested that there is a sense in which the book-reading event in (26a) is viewed as a punctual one, e.g. in the description of a series of successive events. Dowty (1979:189) suggests that, in cases like this, time may be viewed as 'compressed', 'in that the distinction between moments and intervals larger than a moment is obscured'. I will argue that, rather than involving compression of the event time, a case like (26) involves stretching of the Reference time to denote an interval. In the Present, S=R, and since S is VSD, R is VSD as well. In the Past and the Future, there is no identity requirement, however, but merely a precedence

requirement between S and R. This allows R to denote an interval of arbitrary length. In fact, it would seem that in a case like (26), the adverb (*yesterday/tomorrow*) specifies the length of the interval. As long as a past (or future) event can be taken to fit into that interval in view of its internal aspect, as in (26), the sentence is acceptable. But one can easily construct examples where the event does not fit into the interval R:

(27) a. *Yesterday, I got up, had breakfast, built a house, and then had lunch.
b. In 1996, I built a house.
c. *On May 25 2004/Between 1986 and 1990, I wrote my PhD dissertation.[13]

Schematically, the situation with respect to the Simple Past is as follows:

(28) -------- ┌-----R-----┐ ------S------->
└°°°E°°°┘

This means that I assume that for all the simple tenses in English, the following formula holds:

(29) English Simple tense
R⊇E

4. The Simple Present: States

Let us next turn to the discussion of states, starting out with a case where a contrast can be observed between English and other languages, which is highly reminiscent of the contrast in (6) and (7) above. This contrast concerns the fact that adjuncts specifying the length of a state are incompatible with the English Simple Present, whereas they can co-occur with the Simple Present in Dutch, for example:

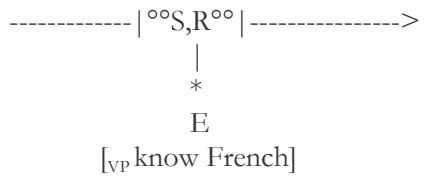
(30) a. *Max lives in Manchester for years.
b. *Betty knows French all her life.
(31) a. Max woont al jaren in Manchester.
'Max has lived in Manchester for years.'
b. Betty kent al heel haar leven Frans.
'Betty has known French all her life.'

Above I argued that the English Simple Present required a particular sort of association between E and R, i.e. one where E is not allowed to extend beyond R. In Dutch, by contrast, such temporal extension is allowed. Something similar appears to be going on in (30) and (31): the state is given a certain temporal extension by means of the adjunct, and such extension is not compatible with the Simple Present in English, but it is in Dutch.

Can this contrast be given the same explanation as before? In order to consider this question, we need to look at states. It is well-known that states in general are compatible with the Simple Present in English:

(32) a. Betty knows French.
b. Susie loves Mary.
c. Henry is ill.
d. The door is open.

This seems at first sight to be in contradiction with our earlier claim that the English Simple Present involves a feature [–extension], as the states in these examples would appear to have a temporal extension that stretches beyond that of the speech time. Hoekstra (1992), however, has proposed that, contrary to appearances, one subclass of the stative predications, the Individual Level Predicates (ILPs), in fact have what he calls 'point duration'. He further suggests that the impression of temporal extension derives from the fact that individual-level predicates describe essential properties of individuals. "[T]o say of John that he knows French would be saying that at a certain point in time, he has the property of knowing French. Given that it is an individual-level predicate, its extension over other instances of John can be taken as an implication" (Hoekstra 1992:159).[14] This may be represented schematically as in (33), where the star (*) is intended to represent point duration.

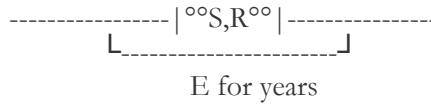
(33)


The lexical content of the VP determines that it ascribes some essential property to the subject at S. Since the property is an essential one, it is reasonable to assume that it holds at times other than S, but this is not strictly speaking something that (32a), and sentences with ILPs in general, assert.

Let us now return to the contrast in (30) and (31), which involve a state accompanied by a *for*-adverbial specifying duration. A number of authors have observed that *for*-adverbials introduce boundedness, both with states and activities (Vet 1980, Moens 1987, Naumann 1995). The following sentences (from De Swart 1998) show that activities with a *for*-adverbial pattern with accomplishments:

(34) a. Andrew was swimming → Andrew swam.
b. Andrew was swimming for three hours ↛ Andrew swam for three hours
c. Eve was drawing a circle ↛ Eve drew a circle.

Let us assume that the durational adjuncts in these sentences are VP-modifiers, i.e. semantically, they modify the denotation of the VP, i.e. the temporal extension of the event (see also De Swart 1998:357). In this respect, these modifiers differ semantically from adverbs like *yesterday* and *tomorrow*, which I take to be tense modifiers. The result will be that the denotation of the VP will be one where the state has temporal extension.

(35)


This situation is not allowed in English by (21), but it is in other languages, as we saw.[15]

Although Hoekstra's proposal was only intended to apply to ILPs and not states in general, I think it can be fruitfully extended in that direction. In fact, Hoekstra (1992) defines the difference between states and dynamic events as follows: dynamic events show temporal progress: each stage or time-slice of the event is different from the preceding and the following ones. States do not show this dynamism: each stage of the state is identical to the other stages. A

straightforward way of accounting for this distinction is to assume that states never have successive stages, but always have point or zero duration (see also Langacker 1982[16]). This generalisation not only applies to ILPs like *intelligent*, but also to stage-level predicates like *ill* and *drunk* and the like. The following generalisation can now be made: anything that has temporal extension has dynamism, and vice versa: anything dynamic has temporal extension.[17]

The difference between ILPs like *intelligent* and SLPs like *drunk* in this analysis is ultimately a lexical difference, not an aspectual or tensological one, as seems plausible. It is therefore not surprising that we find the same contrast with respect to durational adjuncts with SLPs:

(36) a. *They are drunk for two hours.
b. Ze zijn nu twee uur dronken.
'They have been drunk for two hours now.'

Sentence (36a) is analogous to those in (30), and ruled out for the same reason: simple aspect in English does not permit extension beyond the speech time.

The fact that states have point duration does not imply that they are not linked to the reference time at all. This is obviously true for stage-level states, such as (32c-d), where the state holds at the time specified by the tense, i.e. now in the case of the present, some time in the past for the past tense, and a future time for the future tense. But the same is true for ILP's, which could be called timeless. One possible interpretation of the latter characteristic could be that the predication is not anchored to a reference time at all. However, I do not believe that this is the case. ILP's can be past or future in a variety of circumstances.

(37) a. Dinosaurs ate leaves.
b. Jack had blue eyes.
c. Before retiring, Ann worked for an insurance company.

Past tense ILPs are appropriate when the subject no longer exists, because it has become extinct or has died, or because there has been some change in the characteristics of the individual concerned (on the former of these effects, see Musan 1997). Under analogous circumstances, ILPs can also appear in the future tense

(38) a. Your children will have blue eyes.
b. By the end of this month, everyone on this course will know French.
c. Summers will be wetter, winters warmer.
d. Future generations will work in the service industry.

In much the same way, I take ILPs in the present tense to refer to 'now' or the speech time (see also Carlson 1982).

5. Generic sentences as ILP

Having looked at nonstative events in section 3 and at states in section 4, I now turn to an important use of the Simple Present tense, which combines aspects of both of those discussed earlier. These are the so-called generic or characterizing sentences which are based on dynamic verbs, i.e. cases like those in (39):

(39) a. Rick smokes (cigars).

b. Ann works for an insurance company.
c. Max plays the piano.
d. She runs the marathon in less than 3 hours.

The puzzle posed by such sentences is that their interpretation is stative like that of the ILPs discussed in the previous section, yet the category of the internal aspect of the verbs used in them is clearly dynamic. This is shown by the fact that the very same verbs can be used in dynamic predications:

(40) a. Rick is smoking a cigarette.
b. Ann is working for an insurance company.
c. Max is playing the piano.
d. She is running the London marathon.

Although a full discussion of the issue of genericity would clearly lead me too far afield, I do want to briefly sketch the broad outlines of the account I adopt for these cases. Basically, the proposal I should like to make is that cases like these are to be assimilated to cases of ILP.

Before discussing my proposal, I want to comment briefly on a popular alternative analysis, which assumes that sentences like (39) involve a generic operator which quantifies over episodes (events or situations) that are taken to be constitutive for the meaning of the generic sentence (e.g. Carlson 1977). For example, Giorgi and Pianesi's analysis of *John smokes* goes like this:

(41) Gen t([TP(t,I) $\wedge$ contextually-relevant(I) $\wedge$ TP(s,I)] $\wedge \exists e$ (smoke(e) $\wedge$ Cl(e) $\wedge$ at(e,t))

This is to be read like this: for generically many times t which are a temporal part (TP) of the contextually relevant interval I, where I contains the speech event, there is an event of smoking occurring at t.[18] This analysis is exemplary for an approach which assumes there to be a form of quantification over instances of smoking.

There are numerous problems with such an approach. First, an inductive analysis of this kind does not really explain the stative nature of sentences such as those in (39) above: as already noted, despite involving dynamic verbs, these sentences in fact have all the properties of stative predications. Carlson (1995:232) further points out that, "if the linguistic meaning of a generic is derived from some operation over value substitutions for variables in episodic sentences, then any generic sentence should retain its original aspectual class", which clearly is not the case in examples like (39).[19] He furthermore observes that quantification does not normally have this stativising effect:

(42) a. John pushed carts to Cleveland.
b. Every man pushed a cart to Cleveland.
c. John pushed a cart to Cleveland on two occasions.

All of (42) are eventive; if indeed genericity were to involve some sort of quantification by a generic operator, it is unclear why this type of quantification alone would lead to stativisation.

A further drawback of an analysis of characterising sentences in terms of generic quantification over episodes is that it does not easily generalise to cases of ILP involving lexically stative predicates, such as (43), or all of the adjectival and nominal ILPs, e.g. (44):

(43) a. John knows French.
b. Tap water contains chlorine.
c. An element consists of atoms of only one kind.
(44) a. John is a smoker.
b. John is intelligent.

It seems desirable to give a unified analysis of (39a) and (44a), given that, to all intents and purposes, they have the same meaning. Two options are open at this point: one could take the proposal in terms of generic quantification over instances developed for cases like those in (39) to be fundamental, and try to extend it to cases of ILP as in (44). On the other hand, one could adopt an analysis for ILP of the *be intelligent* type (such as (44b)) which does not involve generic quantification over instances, and then try to extend that analysis to the cases like those in (39). I shall argue that the latter strategy is to be preferred over the former.

Before doing that, however, we need to discuss one further important problem for the quantificational approach, which is that many generic sentences do not involve instances:

(45) This car runs on kerosene.

As noted by Goldsmith and Woisetschlaeger (1982:81), "neither understanding nor substantiating the claim of [(45)] requires any reference to particular events". The car in question might in fact be standing in a museum, and never have actually run at all; a mere knowledge of the car's design suffices for someone to be able to utter (45) truthfully. Carlson (1995:225) makes a similar point, in stating that generic sentences are not in principle based on "any array of observed (or even unobserved) instances"; he gives such examples as the following in evidence:

(46) a. Bishops move diagonally.
b. This machine crushes up oranges and removes the seeds. (said of a new machine to be later destroyed accidentally in shipping)
c. Tab A fits in slot B. (cut-out toy instruction on a cereal box which is thrown out)
d. The Speaker of the House succeeds the vice president.
e. Sally handles the mail from Antarctica. (an unfulfilled office function)

Even without instances, these sentences are perfectly interpretable.

This problem arises even more pressingly for the case of ILPs based on nominal and adjectival predicates, supposing one wanted to extend the quantificational analysis to those cases. Thus it hard to see what the situations quantified over could be with predicates like the following (Krifka et.al. 1995:38 and Carlson 1995:232):

(47) be married, be a bachelor, own, be thirty years old, be a student, be male, be a natural satellite of the Earth, be a mammal

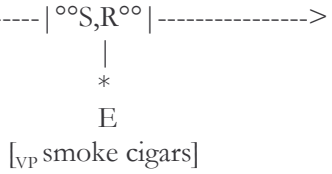
This problem is even more acute in the case of predicates which apply only to kinds, such as *be rare/widespread/common/extinct/etc.*. This circumstance has not stopped people from trying to extend the generic quantification analysis from cases involving lexically episodic verbs (such as the ones in (39)) to all cases of ILP. Thus Krifka et.al. (1995) propose an analysis of (43a) in terms of generic quantification over hypothetical instances of 'showing knowledge of French'.

(48) λxGEN[x,s;](x in s; x shows knowledge of French in s)[20]

Similarly, Chierchia (1995) presents an analysis of *John is intelligent* as involving generic quantification over situations in which John is. Though Chierchia's representation of ILP is formally quantificational, it is far from clear what the content of the quantification is, both with respect to the operator, the restrictor and the variable bound by the operator.

Given the difficulties inherent in such an approach, I shall instead argue that the unification should go the other way round, i.e. take the cases of ILP involving lexically stative predicates as basic, and extend the analysis of those to cases involving lexically dynamic verbs.

How can sentences involving dynamic verbs acquire an interpretation as an ILP, which is, by definition, a state? And how does the stativity come about? Above, I defined stativity in terms of point duration. Let us assume that dynamic VPs have the option of being interpreted statively, i.e. as having point duration:

(49)


While this may at first sight appear to be an *ad hoc* move, one can in fact observe other instances outside the domain of generic sentences where such a 'stativity shift' occurs. Consider a verb like 'run', which would be classified as dynamic on all accounts. Yet contexts abound where this verb receives a stative interpretation:

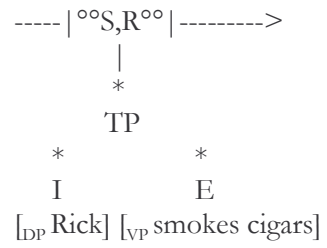
(50) a. The road runs through the village.
b. The exhibition runs at the Norwegian Folk Museum in Oslo.
c. Opening hours run from 11.30 until midnight.
d. The text in the ad runs something like this: 'Don't mess with Texas!
e. Conan Doyle's stories ran in 'The Strand' magazine.
f. The contract runs for a year.
g. Diabetes appears to run in families.

Why is there stativisation in cases like (50)? Observe that all of the subjects in (50) are inanimate. In Rooryck and Vanden Wyngaerd (1998) it is argued that language encodes a difference between animate and inanimate NPs as regards the representation of time-slices: animate NPs can either be viewed as individuals, i.e. in abstraction from times and locations, or as consisting of successive spatio-temporal stages. Inanimate NPs lack this distinction. It so appears that the spatio-temporal make-up of the subject affects the interpretation of the predicate: if the subject is inanimate, the predicate is stative.[21] The same is true for an animate subject which is viewed at the level of the individual: no internal temporal structure is present and the predicate is necessarily stative. Additional cases illustrating this phenomenon are given below (from Rooryck and Vanden Wyngaerd 1998 and Oehrle 1976, respectively):

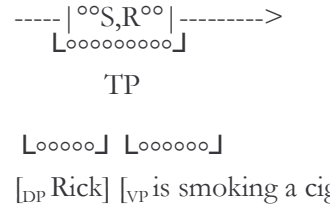
(51) a. John (just) stated that empty categories must be properly governed.
b. The ECP (*just) stated that empty categories must be properly governed.
(52) a. Nixon (just) gave Mailer a book.
b. The book (*just) gave Nixon an ulcer.

In (51a), the subject is animate and the verb dynamic; in (51b) the subject is inanimate and the predicate necessarily stative. Similarly, in (52a) the subject is an animate Agent and the predicate dynamic, whereas in (52b) the subject is an inanimate Cause and the predicate stative.

As the name suggests, ILP involves a consideration of the subject as an individual. An individual can be defined as an entity which is considered abstracting away from its internal temporal structure. Under the conception I am defending here of stative predicates as having zero duration, the same is true of the predicate: the internal temporal make-up of the verb phrase is ignored. This necessarily results in a stative interpretation. In other words, verb phrases are subject to the same possibilities that exist for noun phrases; in particular, they have the possibility of being viewed as punctual, i.e. abstracting away from their internal temporal structure. Schematically, this can be represented as follows:

(53)


Under the dynamic interpretation, the situation is the opposite: the VP is considered as consisting of successive temporal stages, corresponding to a similar series of successive temporal stages in the subject:

(54)


Why should there be this connection between the interpretation of the VP and the subject? Let us look at (54) first. One could say that this is a graphical representation of Carlson's observation that stage-level predicates predicate something of a spatio-temporal stage of the subject: the successive temporal episodes of the VP are predicated of successive temporal episodes of the subject. These stages cannot be predicated of the individual since the individual does not possess stages. In a similar vein, an individual-level predicate can only be predicated of an individual, as in (53), not of a spatio-temporal stage.[22]

Clearly, the remarks in this section can only serve as a first approximation of the issue of generic sentences, an issue that cannot possibly be treated satisfactorily within the space of this article. I have merely attempted here to sketch the general approach which I think should be taken, as well as added a few observations which I feel ought to be relevant for its solution.

6. Conclusion

In this paper, I have first set out a few basic assumptions concerning what I take to be the proper treatment of tense and aspect: tense is basically a deictic notion, whereas aspect concerns the temporal structure of an event. Next, I looked at the use of the Simple Present tense in

English and other languages such as it is used to refer to events happening now. The English tense was shown to be restricted to events with Very Short Duration. Stative predications also occur happily in the Simple Present in English, which was attributed to their zero duration character. Finally, I discussed the issue of characterising or generic sentences based on dynamic verbs, arguing that they are to be analysed on a par with cases of ILP.

Notes

[1] The material in this paper was presented at the 19th Comparative Germanic Syntax Workshop at CUNY, New York (June 2004), and at the University of Antwerp conference 'On the expression of Time and Space' (September 2004); I wish to thank the audiences at those conferences for their useful remarks and suggestions. The paper has alse benefited a great deal from the comments of two anonymous reviewers, as well as those by the editors of this volume. All remaining errors are my own.

[2] Reichenbach's system suffers from a number of shortcomings. Bouchard (1984) has observed that in the system proposed by Hornstein (1977), which is based on Reichenbach, there is no predictable way of associating a particular combination of S, R, and E with any given syntactic form: "we are not given any procedure to recognize the effective realization of these basic tenses in the syntax of the grammar" (1984:92). Moreover, various authors have pointed out that not all natural language tenses imply an ordering of the three time-points S, R and E relative to one another, the Future Perfect being a case in point.

(i) J'aurai fini.
I will have finished

Comrie (1981, 1985:70), Bouchard (1984) and Vikner (1985) have argued that the meaning of the future perfect does not impose a relative ordering of S and E. This can easily be achieved by distinguishing two distinct levels, which allows S and E to be unordered relative to one another:

(ii) Level I: S_R
Level II: E_R

In the system I adopt, the same effect is achieved by taking the relationship of R to S (Level I in Bouchard's system) to be a matter of tense, and the relationship between E and R (Bouchard's Level II) one of aspect.

[3] A reviewer asks how the notion of simple aspect is to be understood, i.e. as a morphological or a semantic notion. Morphologically, simple aspect is the absence of any grammatical marking of aspect. Semantically, its interpretation differs from language to language, as will be argued below: in English, simple aspect involves a double negative requirement (lack of extension and lack of completion), whereas other languages have a mere perfect-imperfect opposition (see the diagrams in (22) and (23) below and the surrounding discussion).

[4] One could object that the presence of two future tenses is somehow due to the periphrastic nature of the English future tense, which is expressed through the combination of a modal and a bare infinitive, rather than morphologically. A closer look at data from other languages, however, reveals that this approach cannot be correct. Even languages that have a morphological future tense, like French, allow the combination of past and future tense:

(i)	Past:	(il) arriv+ait	'(he) arrived'
	Future:	(il) arriv+er+a	'(he) will arrive'
	Past Future:	(il) arrive+er+ait	'(he) would arrive'

Reichenbach calls the latter tense the posterior past, noting that it is a tense "which grammar does not officially recognize as a tense" (1947:298). Its interpretation appears to be one involving two reference points, as in:

(ii) a. I did not expect that he would win the race.
b. John left for the front. He would never return.

The first or matrix event is located in the past, establishing a past reference point, relative to which the second or embedded event is located in the future (Comrie 1985:75).

[5] The distinction between internal and external aspect is not original, nor do previous authors necessarily use the same terms to refer to the same distinction (see e.g. Smith 1991, Hoekstra 1992, Depraetere 1995, De Swart 1998).

Overall, the system adopted here is very much like the one proposed by De Swart (1998), who distinguishes the following syntactic and semantic hierarchy:

(i) [Tense [Aspect* [eventuality description]]]

Schmitt (2001) is also based on De Swart (1998).

[6] A reviewer suggests that the Present Tense in Portuguese has the same properties as the Present Tense in English, a claim also made in Schmitt (2001). The apparent source of this claim, Oliveira and Lopes (1995), does indeed contain a number of examples of eventive sentences where the Present Tense is used deictically, i.e. to refer to the speech time, in contexts which are similar to those used in English (e.g. sports commentary, performatives, instructions and demonstrations, etc.). The surrounding discussion is somewhat less unambiguous, however: "Except for these two types of contexts [i.e. sports commentary and performatives-GVW], it is *difficult* to find any form of the Present with a strict deictic value in contemporary European Portuguese" (Oliveira and Lopes 1995:105; my emphasis-GVW). Later on in the same paper, they note that "[w]ith accomplishment predicates, the Simple Present is *rarely* used" (1995:109; my emphasis-GVW), and they assign a question mark to the examples illustrating this claim:

(i) a. ?O João escreve um romance.
'João writes a novel.'
b. ?A Patricia pinta o carro.
'Patricia paints the car.'
c. ?O João viaja até Faro.
'João travels to Faro.'

But clearly, this situation contrasts sharply with the one in English, where such sentences are *never* used. Portuguese rather seems to pattern with Dutch, where cases like (7) also alternate with 'progressive' variants, and where the latter are clearly preferred over the variants with the Simple Present:

(ii) A: Wat ben je aan het doen?
What are you at the do.inf
'What are you doing?'
B: Ik ben een boek aan het lezen.
I am a book at the read.inf
'I am reading a book.'

Nevertheless, given a minimal context, cases like (7) are certainly not ruled out. I conclude that Portuguese resembles Dutch more than it does English in this respect.

[7] A reviewer finds this comment 'a bit unfair' towards Dowty because in none of the Dutch cases 'a description of the event and its result is possible', suggesting that 'Dowty's intuition is not correct'. I think the cases in (10) to (15) do invalidate this intuition, which moreover I have been unable to find in anything approaching the formulation given by the reviewer in Dowty's text.

[8] Giorgi and Pianesi (1997) (henceforth G&P) present an account which is slightly more complicated, but which ultimately boils down to the same restriction as proposed by Dowty. G&P argue that the English eventive predicates are special in that they are inherently perfective. This is in turn a result of the absence of agreement features on English verbs; for the derivation to converge, the categorial features [+V,–N] need to be supplemented with the feature [+Perf], for reasons that we shall not go into here. As a result, "a verb in English is always perfective" (1997:164). These assumptions account for (6), modulo a following step in the argument. In short, perfective events are closed and closed events cannot be simultaneous with punctual ones; since the utterance time is punctual, (6) is ruled out. The claim that perfective events cannot be simultaneous with the speech time follows from G&P's punctuality constraint:

(i) A closed event cannot be simultaneous with a punctual event.

The process of closure involved in perfectivisation amounts to adding a boundary to a process, without, however, affecting the temporal properties of the process. In other words, a closed event can be decomposed into a processual part and a boundary. An essential characteristic of a process is that it has temporal structure. By definition, punctual events lack temporal structure. While these assumptions explain why (i) should hold, it seems that Giorgi and Pianesi's account is in essence no different from the Taylor/Dowty account mentioned earlier: the speech time is punctual, and eventive predicates are nonpunctual. The nonpunctual character essentially derives

from the processual part contained in a perfectivised eventive predicate. Crucially, G&P's account also suffers from the same defect as Dowty's: it fails to account for the fact that in languages other than English, eventive predicates do combine with the Simple Present Tense. In those languages, verbs are not inherently perfective, so that only the processual part of the event remains, and it is precisely this processual part which G&P take to be incompatible with the speech time. Put differently, if perfective events are considered to be incompatible with the speech time on account of the temporal structure, present events are incompatible a fortiori, since they only consist of the processual part. A further problem concerns the fact that the languages in which the equivalent of (6) is possible also include Mainland Scandinavian (see (8) above), which, from the point of view of verbal morphology are even more impoverished than English, raising the question why these verbs are apparently not inherently perfective.

[9] The sentences in (16) represent a different case: it will be obvious that (16c), for example, does not describe a VSD event. At the same time, it is also obvious that the events described by these sentences do not relate to the utterance time at all, i.e. they are not deictically anchored to the speech time. This clearly sets them apart from the other uses of the Simple Present. Instead, it seems as if the events at issue are anchored to a location, which is usually overtly mentioned in a PP (*in Act I, in The Scarlet Letter, in chapter 3*, etc.). There furthermore appears to exist a requirement, not dissimilar from the one be discussed below, to the effect that the event at issue be contained in the location. This suggests interesting avenues for the analysis of temporal relationships in terms of spatial concepts, which we hope to pursue elsewhere.

[10] Michaelis (1998:26) argues that the events in these reports fill slots in highly ritualised scripts, supporting her argument with the following example:

(i) Jones hits a high fly to left field. Ryan chases it. ??A streaker appears on the field.

This sequence does indeed have a flavour of slight deviance, which one could indeed account for in terms of requirements imposed by the 'script'. But that fact in and of itself does not tell us why the present tense is usable in such cases. Observe that replacing the present by the progressive in the final sentence of (i) does not appear to improve the sequence. Michaelis goes on to argue that these events are construed as lacking internal structure. But as will be argued in the text, although there can indeed be some variability with respect to way the length of events is perceived or construed, such variability is not limitless (see (25) and surrounding discussion).

[11] Dehaene (1997) observes that memorising numbers and the like often involves the mental rote repetition of a sequence of elements within a fixed temporal interval (e.g. a telephone number). That is, short term memory is not limited in the number of elements it can contain, but is temporally limited. Languages which monosyllabic names for the numbers, like Chinese, therefore allow more digits to be remembered in short-term memory than languages with phonologically more complex number names, since less of those will fit into the same temporal interval. For concreteness, one might assume that the notion of VSD that I propose is to be identified with the temporal length of this short term memory, which is obviously crucially involved in the act of speaking.

[12] Zagona (1992) ties the availability of present-moment readings to the presence of verb movement, noting that the correlation holds in Germanic and Romance, though not in Chinese and Korean. Schmitt (2001) develops an alternative account of the English/non-English contrast in terms of De Swart's (1998) analysis. The account states that the English present tense selects for states only, whereas in non-English present T selects for homogeneous predicates (states and activities). Moreover, the latter languages have a coercion operator which 'coerces' an accomplishment into an activity reading. All languages have a coercion operator converting accomplishments into habitual readings. Such an account in terms of selection restrictions imposed by T on its complement does not really explain why the English situation is so rare cross-linguistically, however. It also forces one to assume, somewhat counterintuitively, that the cases in (10) through (15) are stative. Moreover, the introduction of the powerful mechanism of the coercion operator raises the question why this mechanism is as restricted as it is, e.g. why activities and accomplishments in English cannot be converted into states to satisfy the selection requirement of English T. In this connection, a reviewer raises the learnability issue: how does the learner of English figure out the relevant properties of the English present tense? Whilst I have no answer to offer to this question at this stage, it seems to me that this problem is not unique to the account I am proposing.

[13] A reviewer points out that (0c) seems fine if one considers those fields of academic inquiry where dissertations could easily be written in a day, and likewise for (0a) if building a house uses techniques that drastically shorten building time. These observations actually confirm our claim that the adverb specifies the interval within which the event must fit. The point is that, if the building time does exceed the one-day interval specified by *yesterday*, then, even if the subject did some house-building within that interval, the sentence is unacceptable.

[14] Comrie (1985:39-40) proposes something analogous for habitual sentences.

[15] A. Henry (p.c.) points out that in Belfast English, the restriction exemplified by (30) does not hold, i.e. it is possible to say things like:

(i) I'm here two weeks/since Wednesday.

Still, the equivalent of (6) continues to be ruled out in this dialect, suggesting that the two phenomena may not have a common explanation.

[16] The present account differs from Langacker's in that he considers stative predications containing verbs (e.g. *hate, resemble*, etc.) to be imperfective rather than stative. There is little, if any, empirical evidence to support such a move, however.

[17] A clear exception to this are sentences where temporal extension is contributed by an adjunct, such as (31) above. The generalization only holds at the lowest VP-level, therefore.

[18] The closure operator Cl represents the inherently perfective nature of all English eventive predicates. In an eventive sentence like *John eats an apple*, the logical representation

(i) $\exists e \exists t \exists x[\text{eat}(e) \wedge \text{Theme}(e,x) \wedge \text{apple}(x) \wedge \text{Agent}(e,\text{John}) \wedge \text{Cl}(e) \wedge t=S \wedge \text{at}(t,e))$

involves some sort of identity of e and S, which leads to ungrammaticality on account of G&P's punctuality constraint (see note 8). In a generic sentence, however, their analysis does not establish a direct link between the event and the speech time. Instead, (41) requires that S be a part of the temporal interval which also includes e.

[19] A reviewer states that it would be good if it could be shown explicitly that sentences of the type in (39) do not retain their original aspectual class under the relevant operation. The obvious answer to this is that there is no evidence at all showing that they do retain their aspectual class.

[20] The formula (48) instantiates the following general schema:

$\mathbf{Q}[x_1,\ldots,x_i;y_1,\ldots,y_i]$ (**Restrictor** $[x_1,\ldots,x_i]$; **Matrix** $[\{x_1\},\ldots,\{x_i\}, y_1,\ldots,y_i]$)

Where $x_1,\ldots,x_i$ are the variables to be bound by **Q**, and $y_1,\ldots,y_i$ are the variables to be bound existentially with scope just in the matrix.

[21] A reviewer points out that it cannot be right to say that, if the subject is inanimate, the predicate is stative, given such cases as *Sweat was running down his forehead*. However, as discussed in Rooryck and Vanden Wyngaerd (1998), the distinction between animate and inanimate NPs is to a certain extent flexible, in that inanimate things may be viewed as animate, i.e. as evolving through time, particularly if they show the property of internally driven or autonomous movement, or if they possess technological complexity. The former appears to be the case in the example mentioned by the reviewer.

[22] States can be predicated of spatio-temporal stages of individuals, but only if they are adjectival (e.g. *be ill, happy, drunk*, etc.). That is, there all stative verbs are individual-level (e.g. hate, love, know French, etc.), including the states based on dynamic verbs discussed here. Put differently, there are no stative sentences of the type *John happies*, meaning *John is happy*. See Langacker (1982) for a possible account of this restriction.

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