Telicity, Stativity and the Progressive in Swedish and English

Abstract

This article discusses the relation between progressive aspect, (a)telicity and stativity in English and Swedish. Progressive aspect is defined as a relation between topic time/reference time (in the sense of Klein 1994) and event time, where topic time/reference time is located inside the event time. The two main contexts of interests are the episodic present tense, as in *we are playing football* and past tense sentences with punctual temporal modifiers that pick out a point in time located within the event, as in *when I arrived, they were playing football*. As is well known, in English the progressive form has to be used in these cases, unless the main predicate is stative. I will argue in this article that in English, only stative predicates and progressives can include a topic time. In Swedish, a simple tense form can be used in progressive contexts, though as will be shown, clearly telic predicates often force the topic time/reference time to be located before the event time (i.e. giving rise to a future or prospective reading), especially in the past, though less clearly so in the present tense. In other words, there is a clear difference between Swedish and English: while the topic time in English only can be located inside stative predicates, the topic time in Swedish can located inside at least all types of atelic predicates. I will claim that the main difference between English and Swedish is that topic time in English always is punctual, while topic time in Swedish at least can span a minimal stage of an event, in the terms of Taylor (1977). Further, I show that the state-event-distinction is relevant for Swedish as well, and whereas all verbs in the progressive tense show typical stative properties, non-stative verbs in the simple past or present tense do not behave like states. The data supports

Taylor's claim that states are true at moments, while activities are only true at intervals.

1 Introduction

Linguists have more or less uniformly agreed that temporal relations should be broken down into three separate levels: tense, (outer) aspect and Aktionsart/inner aspect. These three levels are highly intertwined though, and hard to study in isolation from each other. Tense provides information about how an event or state is temporally located with respect to speech time. For example, in (1), the three tenses of English are given: in (1-a) a state is located before speech time (Past), in (1-b) a state is located at the same time as speech time, and in (1-c) a state is located after speech time (future):[1]

(1) a. He was tired yesterday (Past)

b. He is tired now (Present)

c. He will be tired tomorrow (Future)

Aspect, or viewpoint/outer aspect, provides information about the perspective the speaker take with respect to the event or state. Most commonly, a distinction is made between perfective and imperfective aspect, where the point of view is located within the event in the imperfective aspect, and outside the event in the case of the perfective (see e.g. Comrie 1976 for definitions along these lines). In (2) this distinction is exemplified, where the temporal adverbial provides a specific value for the reference time/topic time. In the past progressive sentence (2-a), this reference time is interpreted as being within the event, while in the simple past (2-b), the topic time is interpreted as being outside (more specifically, before) the event time:

(2) a. John was writing a poem when I arrived (Imperfective/Progressive)

b. John wrote a poem when I arrived (Perfective)

In (2-a), my arriving took place while John was writing a poem, while in (2-b), John wrote a poem after I had arrived.

Finally, aktionsart or inner aspect is related to the shape of the event, for example if the event has an endpoint, if it has duration and if it is dynamic. Since Vendler (1967) four types of aktionsart have been recognized: States (+Duration, −Dynamic, −Endpoint), Activities (+Duration, +Dynamic, −Endpoint), Accomplishments (+Duration, +Dynamic, +Endpoint) and Achievements (−Duration, +Dynamic, +Endpoint).[2] These four classes can be divided into two macro-classes: predicates without an endpoint (States and Activities) and predicates with an endpoint (Accomplishments and Achievements). The former are called atelic predicates, and can be modified by a *for X time*-adverbial, and the latter are called telic predicates, and can be modified with an *in X time*-adverbial. Some verbs are lexically specified for aktionsart/inner aspect, as is the case for most stative verbs (3), while inner aspect is determined by the nature of the verb's arguments and modifiers in other cases, as seen in (4) and (5):

(3) He owned the company for two years/#in two years

(4) a. He ran for two hours (Atelic, Process)
b. He ran to the store in two hours (Telic, Accomplishment)

(5) a. He wrote poetry for five hours (Atelic, Process)
b. He wrote a poem in five hours (Telic, Accomplishment)

This paper focuses on sentences where the point of view is located inside the event time, or the state. As mentioned above, the progressive form (i.e., verb + *ing* in the complement of a copula) has to be used in English, in these cases, unless the predicate is stative, as in (6). The telicity of the predicate does not play any role, as seen in (7):

(6) When I arrived at the company, John owned half of the stock

(7) a. He was writing a poem/poetry when I entered the room.

b. He wrote a poem/poetry when I entered the room.

In Swedish, telicity rather than stativity seems to be the crucial feature in most cases. In Swedish, telic predicates can be modified by a temporal PP headed by the preposition *på* ('on', equivalent to English 'in'), but not easily by *i* ('in', equivalent to English *for*) as seen in (8-a). Atelic predicates are preferably modified by *i* ('in'). As shown in (8-a-c), a predicate can get an atelic reading by having the internal argument introduced by a preposition (a conative construction) as in (8-b) or by having a non-quantized internal argument, as in (8-c) (on top of that, many predicates are atelic no matter the nature of the internal argument):

(8) a. Han skrev dikten på fem år/ *i fem år
he wrote poem.DEF in five years/ *on five years
'He was writing the poem for five years/ he worked on the poem for five years'

b. Han skrev på dikten i fem år /*på fem år
he wrote on poem.DEF in five years/ *on five years
'He was writing the poem for five years/ he worked on the poem for five years'

c. Han skrev poesi i fem år/??på fem år
he wrote poetry in five years/on five years
'He wrote poetry for five years/??in five years'

Only atelic predicates can in general surface in statements where the point of view is located inside the event time, as shown in (9-a-c):

(9) a. När jag kom in i rummet skrev Johan dikten
when I came in in room.DEF wrote John poem.DEF
'When I entered the room, he wrote the poem'

b. När jag kom in i rummet skrev John fortfarande poesi
when I came in in room.DEF write he still poetry
'When I entered the room, he was still writing poetry'

c. När jag kom in i rummet skrev John fortfarande på dikten
when I came in in room.DEF write he still on poem.DEF
'When I entered the room, he was still writing the poem'

(9-a) contains a quantized (and definite) direct object. This triggers a telic interpretation of the predicate, and in this case, reference time can not be contained within the event time. Rather, the event of John writing the poem must take place after I have entered the room. In (9-b), a mass noun is used as a direct object, triggering an atelic reading. In this case, my entering must have taken place while John was writing poetry. This reading is forced by the adverb *fortfarande* ("still"), which indicates that the event must have started before my entering (note that this adverb is illicit in (9-a)). In (9-c) the atelic conative construction is used (the direct object is introduced by a preposition, and does not trigger quantization). Here again, the "progressive" reading is triggered.

When it comes to the present tense, English is famous for making the split between stative and non-stative predicates (see Dowty 1979). In the episodic present tense (i.e., non-habitual and non-generic), stative verbs have to come out in the simple form, while all types of non-stative verbs surface in the progressive form:[3]

(10) a. He owns the brewery

b. *He is owning the brewery

(11) a. We are playing hockey

b. #We play hockey (only OK in a habitual reading)

In Swedish, the simple present tense is used for both activity verbs and stative verbs in the episodic present tense:

(12) a. Han äger bryggeriet
he own.PRES brewery.DEF
'He owns the brewery'

b. Vi spelar fotboll
we play.PRES football
'We are playing soccer' (habitual reading is also possible)

Even clearly telic predicates can quite easily be used in the simple present tense in Swedish, giving rise to what seems to be episodic, present tense readings (i.e., readings where the event time coincides with the speech time). Two examples are given below, where the b-examples show that the predicate in question is telic. The a-examples are both felicitous answers to the question *what is he doing?* As can be seen in the English translations, the progressive form has to be used in English in these cases:

(13) a. Han skriver ett brev
he write a letter
'He is writing a letter'

b. Han skrev ett brev på fem minuter/??i fem minuter
he wrote a letter on five minutes/in five minutes
'He wrote a letter in five minutes/??for five minutes'

(14) a. Han äter upp tårtan från igår.
he eat up cake.DEF from yesterday
'He is eating up the cake from yesterday'

b. Han åt upp tårtan från igår på fem minuter/*i fem minuter
he ate up cake.DEF from yesterday on five minutes/in five minutes
'He ate up the cake from yesterday in five minutes/*for five minutes'

For true achievements, a future reading is most commonly triggered when they appear in the present tense, as shown below:

(15) Vi vinner matchen
we win.PRES match.DEF
Pref. 'We will win the match' [4]

In this article, I will propose that all telic predicates get a future shifted reading, and that reference time can never be located inside a telic predicate.[5]

English and Swedish pattern alike when it comes to non-progressive past tenses, i.e., the simple form is used for both telic and atelic predicates.

In the following two sections, I will go through a couple of seminal ideas within the study of tense and aspect. I will start with Reichenbach (1947), and then proceed via Taylor (1977), Dowty (1979), and Bennett and Partee (1978) to Demirdache and Uribe-Etxebarria (2000). In section 4, I will give my analysis of the difference between the English and Swedish temporal systems – a solution that will take ingredients from the aforementioned authors' analyses, but will emphasize reference time/topic time. The main difference between English and Swedish, I will claim, is that reference time/topic time in English always is punctual, while it can span shorter intervals in Swedish. The main claims of the article will be summed up in section 5.

2 Speech time, reference time and event time

Most semanticists working on tense, aspect and aktionsart agree to some extent with Reichenbach (1947) that tense is not straightforwardly explainable as a relationship between a speech time and an event time. A third temporal notion has to be introduced, namely that of reference time (that in later works sometimes has been called assertion time or topic time). The reference time is the point in time from which the event is viewed, and this time connects the speech time with the event time. The reference time can, according to Reichenbach, either precede, follow or coincide with the speech time and/or event time. By introducing reference time, Reichenbach is able to describe the different perfect tenses (or aspects) and distinguish the perfects from the simple tenses. A present perfect differs from the simple past in the following way: In a past sentence, reference time and event time coincide, and they precede the speech time (i.e. an event occurring in the past is viewed from a past point of view), while in a present perfect, reference time and speech time coincide, and the event time precedes them both (i.e. an event occurring in the past viewed from a present point of view). Further, in a pluperfect sentence, all three time points are separate: event time precedes reference time and reference time precedes speech time (the event is taking place in a past before

the reference time). The three different tenses/aspects can formalized in the following way, where (,) means coincide, and (_) means not coincide (i.e. follow or precede depending on the order of the elements, where occurring to the left means precede):

- Past tense: E,R_S (Event time and reference time coincide, and precede speech time)
- Present perfect: E_R,S (Event time precedes reference time, which coincide with speech time)
- Past perfect: E_R_S (Event time precedes reference time which precedes speech time)

When all the three time points coincide, we get the present tense: S,R,E (the order of the elements is irrelevant when they coincide)

However, though the Reichenbachian system manages to explain the difference between the simple forms and the complex perfect tenses, it doesn't tell us anything about viewpoint aspect and aktionsart. A sentence in present tense with a stative verb, surfacing as a simple present (as in (10)) and a sentence in present tense with an activity verb, surfacing as a progressive (as in (11)), will have the same representation: S,R,E. The perfective/imperfective distinction is equally hard to capture in his system. Compare for example a simple past tense sentence with a progressive past tense sentence:

(16) a. He built a house
b. He was building a house

Both sentences will get the same representation: E,R_S. Event time and reference time coincide and precede the speech time in both examples. The only thing the Reichenbachian system, as it looks now, is good for is actually to deal with the perfects[6].

The limits of the Reichenbachian system are due to the fact that it only deals with time points, and not intervals. The idea that language deals with intervals rather than time points has been

around since the early seventies, and originates mainly in work by Barbara Partee. Since then intervals have been used by most semanticists working on issues concerning tense and aspect as we will see in in the subsequent sections of the paper (e.g. Dowty 1979, Parsons 1990 etc).

That events cannot be captured as just a point in time is quite obvious, since most events have duration. Take for example an accomplishment:

(17) He built the house in three years

Here the event 'build a house' is clearly not a point in time, but spans over a longer interval, more exactly, three years. As mentioned above, the reference time could according to Reichenbach either precede, follow or overlap with the event time. In the sentence above, reference time and event time would overlap (E,R_S), in the Reichenbachian sense, since it is a past tense sentence. The sentence above is also telic, that is, it expresses that the event is completed. 'Three years' is the time from the beginning of the building to the time when the house is finished.

When the verb appears in the past progressive, nothing is said about the completion of the event.

(18) He was building the house (for three years)

Here, as well, the event has duration. As we will see in section 3, linguists have taken the reference time to be within the event time in the progressive sentence, while it is either outside or strictly overlapping with the event time in non-progressive/perfect sentences (see Comrie 1976, Demirdache and Uribe-Etxebarria 2000 etc.). The term Reference Time has later been re-named Assertion Time (in Demirdache and Uribe-Etxebarria 2000) and Topic Time (in Klein 1994), I will treat Reference Time, Assertion time and Topic Time as synonyms (even though the particular writers have given slightly different definitions of them). Most linguists agree on the necessity of the having Reference Time in addition to Speech Time and Event Time in order to give an accurate description of Tense, Aspect and Aktionsart. However, Reference Time has mainly been used for explaining the difference between the perfective and the imperfective, while other tools have been

used for separating the perfect tenses from the simple tenses, see e.g. Dowty (1979) and Iatridou et al. (2001) for an Extended Now-analysis of the perfect, and Larsson (2009) for a bi-clausal analysis. The Reference Time/Topic Time will be a crucial element in my analysis of the difference between the English simple tenses and the Swedish simple tense. The perfects will however be left outside, though a Reichenbachian analysis of the perfects is compatible with my analysis.

2.1 Stages in events

The morphological difference seen in English between stative predicates on one hand and non-stative predicates on the other hand is not to be confused with the imperfective-perfective difference that exists in for example the Slavic languages (and many others). Though the progressive is basically "imperfective" in that it denotes a non-completed event, it differs from imperfective forms when it come to stative predicates. Stative predicates in languages that make a clear perfective-imperfective distinction only appear in imperfective aspect since they, like activities, (and accomplishments/achievements in the progressive) do not denote events with an endpoint. The difference between simple tense forms and progressive tense in English should therefore not be described in the same way as a difference between perfective and imperfective verb forms in e.g. the Slavic langauages. In short, the English progressive cannot be said to mark atelicity, since a sentence like *he ran for five minutes* presumably is atelic, nor can it be said to be the only means of locating reference time inside the event time, since a sentence like *when I arrived he owned half of the stock* presumably has reference time within event time.

To capture the progressive, semanticists have once again made reference to the notion of intervals. Taylor (1977) claims that the main difference between states and non-stative predicates is that states are true at points in time, while non-stative predicates are only true at intervals. This idea has lived on in influential work by David Dowty (especially Dowty 1979) and Susan Rothstein (see Rothstein 2004). The main idea is the following: to determine if something is an event of e.g. 'running', one needs access to more than one point in time, since one point involves no movement at all (one frozen moment of running would rather be 'standing' or 'standing on one leg' or 'hovering')

, while one moment will be enough to determine if something is a stative event. For an interval of running to be true, the interval must at least be as large so as to include a minimal stage of running. How large this interval really is, is probably up to pragmatics to decide, as long as it is larger than a moment. Taylor gives the following four postulates to capture the behavior of the different verb classes (from Dowty 1979):

1. If α is a *stative* predicate, then $\alpha(x)$ is true at an interval I just in case $\alpha(x)$ is true at all moments within I.

2. If α is an activity verb or an accomplishment/achievement verb, then $\alpha(x)$ is only true at an interval larger than a moment.

3. If α is an accomplishment/acheivemant verb, then if $\alpha(x)$ is true at I, then $\alpha(x)$ is false of all subintervals of I.

4. If α is an activity verb, then if $\alpha(x)$ is true at I, then $\alpha(x)$ is true for all subintervals of I which are larger than a moment.

That achievements and accomplishments are only true at intervals larger than a moment is uncontroversial and fairly self-evident. This is also the source of the so called imperfective paradox:

- 'He is building a house' does not entail 'he has built a house'.

- 'He is running' does entail 'He has run'.

However, since activity verbs do not give rise to the imperfective paradox, it is harder to accept the idea that the interval that is required to make up a minimal stage of an activity is somehow treated differently from a stative interval. The only indication that states and activities are temporally different is that they surface in different ways in the present tense in English. However, in this paper, I will accept the idea that even activity verbs need intervals to be used felicitously.

In the next section, I will present Dowty (1979)'s explanation of the difference between stative verbs and non-stative verbs – an explanation that crucially builds on Taylor's four meaning postulates.

2.2 Speech time and the modality of the progressive

We have seen now that the event time can be bigger than a moment (in fact, it has to be for all non-stative predicates). Reference time, as we will see, presumably can be larger than a moment too (at least in Swedish). However, speech time seems to be just a point in time, and this point can either precede, follow or overlap with the reference time. Now focusing on the present tense, the punctual speech time must overlap with a reference time, which overlaps with an event time. All non-stative predicates are only true at intervals that are larger than a moment (see 2), which means that speech time must somehow be included in the event time, which leads to the conclusion that the event referred to in a present tense sentence has started before speech time, and/or that the event continues after the speech time. When it comes to accomplishments in present tense, it is clear that the event referred to continues and culminates in the future, no matter if it comes in the shape of a progressive (in English) or as simple present tense (as in Swedish), as is showed in the following Swedish sentence:

(19) Vi bygger ett hus
we build.PRES a house
'We are building a house.'

It is not even certain that the house-building event in (19) will ever culminate. It is easy to imagine that something happens that will interrupt the building-event, before it has culminated (e.g., the builders might die before the house is finished. This is the basis for the imperfective paradox. From this Dowty (1979) bases his idea that all imperfectives[7] contain some epistemic modality. Dowty formalizes it in the following way:

- [PROG ϕ] is true at $\langle I, w\rangle$ iff there is an interval I' such that $I \subset I'$ and I is not a final subinterval for I' and there is a world w' for which ϕ is true at $\langle I', w'\rangle$ and w is exactly like w' at all times preceding and including I.

Note that the notion of reference time is absent in the definition. Dowty's solution makes the reference time redundant.

Following Taylor's postulates, it's clear that even with an activity, the speech time cannot be exactly coextensive with the whole interval that make up a minimal activity stage, since speech time is a moment and an activity is necessarily larger than a moment. According to Dowty, even activity verbs that appear in the progressive/imperfective contain modality, i.e. an activity is only true in some world where the event proceeds and end up constituting a minimal stage of the activity denoted by the verb[8]. This explains why activities surface in the present progressive form in English, that is, they contain some modality.

Dowty's proposal has two advantages. First, he doesn't need to use reference time to deal with the imperfective/perfective difference, since the difference is rather in modality. Secondly, he can explain why activity verbs surface as progressives in the present tense. However, this analysis is hard to transfer to Swedish. In Swedish, as we have seen above, the simple form is fine in present tense, and it is also fine in the "progressive" past, as seen in (20):

(20) a. Vi spelar fotboll
we play.PRES football
'We are playing soccer' (habitual reading is also possible)

b. När jag kom in i rummet åt han fortfarande glass
when I came in i room.DEF ate he still ice cream
'When I entered the room, he was still eating ice cream'

One possibility is of course that simple present and past tense always are ambiguous between a modal/progressive meaning, and a non-progressive meaning. Another way of saying this is that the progressive operator is phonologically null element. This would not be unexpected in any sense – we know that in both English and Swedish, simple tense forms can be used for in both habitual and perfective sentences, so the simple past and present tense in Swedish could easily have developed to cover the progressive as well.[9] However, as we have seen earlier, only atelic predicates can get progressive interpretations in Swedish, as shown by the nonprogressive interpretation of telic predicates in such contexts, repeated below:[10]

(21) När jag kom in i rummet skrev han dikten
when I came in in room.DEF wrote he poem.DEF
'When I entered the room, he wrote a poem'

Dowty's formulation of the progressive would have to be re-written, so that it only covers atelic predicates in Swedish. It is not clear how to do this. I will claim that the Swedish simple tenses, in their ongoing readings, do not have the semantics and syntax of the English progressives. Rather, the difference between English and Swedish lies in the properties of the reference time/topic time. I will however remain agnostic to the claim that progressives contain a modal operator. The point I want to pick up on is rather that the progressive in English has the same distribution with respect to tense as states. In the next section I look at a proposal that is similar to Dowty's proposal, that says that the progressive is a derived stative, and thereby can be true at moments, just like underived states.

2.3 The progressive as a state

Another way of capturing the English progressive is to say that it is a derived state. This has been proposed by e.g. Bennett and Partee (1978) and Parsons (1990). Bennett and Partee (1978) give the following truth conditions for the progressive:

> 'John is building a house' is true at I if and only if I is a moment of time, there exists an interval of time I' such that I is in I', I is not an endpoint for I', and John builds a house is true at I'.

This analysis is inspired by the fact that progressives and simple stative verbs have the same distribution. Below I give four contexts where the simple form of stative verbs and the progressive form of non-stative verbs can be used, but where the simple form of non-stative verbs is illicit:

1. Present tense, episodic reading:

(22) a. He owns half of the stock.

b. He is playing tennis.

c. # He plays tennis.

2. Past tense with reference time inside event time:

(23) a. When I arrived, he owned half of the stock.

b. When I arrived, he was playing tennis.

c. # When I arrived, he played tennis.

3. Epistemic modality, present tense (see Ramchand 2009 for discussion)

(24) a. John must really hate getting up early. (epistemic reading possible)

b. John must be swimming. (epistemic reading possible)

c. # John must swim. (only deontic, future)

4. Complement of punctual ECM-verbs (from Hallman 2009):

(25) a. The inspector revealed/discovered Max to be a liar.

b. The inspector revealed/discovered Max to be lying.

c. *The inspector revealed/discovered Max to lie.

As far as I have been able to discover, there is no syntactic context in English where a stative verb is licit, and a progressive is not. In other words, they seem to have the same syntactic properties, or possibly, stative verbs have a subset of the syntactic properties of the progressives. We can now ask if stative verbs in Swedish only have a subset of the syntactic properties of the activity verbs, or if they in addition have any unique properties. If they don't have any unique syntactic properties, we should either just count them as a subclass of the activity verbs, or we could specu-

late that all (atelic) activity verbs can be turned into stative predicates, without the addition of any visible morphology. It turns out to be quite tricky to actually tell if stative predicates have syntactic properties that activities lack. With respect to the four points above, we have already seen that states and activities pattern alike in the first two points in Swedish (present progressive and past progressive). The judgements are less clear when it comes to epistemic modals and ECM-complements, but as I will show, stative predicates do after all have some unique syntactic properties.

Starting with modals, it is absolutely clear that epistemic readings are most easily available for stative verbs and copular constructions, as shown in (26) for the the modal *måste* ('must'): [11]

(26) a. Detta bröd måste innehålla tillräckligt med fiber
this bread must contain sufficient with fibers
'This bread must contain enough fibers' (- let's buy it!)

b. Han måste verkligen älska sin fru
he must really love REFL.POSS wife
'He must really love his wife' (judging from the amount of flowers he sends her)

c. Kakan måste vara klar nu
cake.DEF must be ready now
'The cake must be ready now'

Future oriented deontic readings are also possible in the sentences above, given the right context (i.e., 'the next type of bread we produce, must contain enough fibers to count as a healthy bread', etc.). For non-stative verbs, deontic interpretations are often preferred, but given the right context, epistemic, present tense oriented readings are possible. Assume that you are standing outside a big building, and you can hear from inside a lot of balls bouncing, and people running around. In this context, you can very well utter:

(27) De måste spela fotboll därinne
they must play football there.in
'They must be playing footbal in there'

So, once again, atelics are patterning with states in Swedish. Note that in English, in this very context, the main predicate has to surface in the progressive form. When it comes to telic predicates, it is even harder to get the epistemic reading. The best context I can come up with is the following: you see a slightly blurred picture of a man holding something green in his hand, and holding his hand quite close to his mouth. Someone asks you, what the man in the picture is doing, and you answer:

(28) (??) Han måste äta ett äpple
he must eat an apple
int. 'He must be eating an apple'

Even in this context, I find the above sentence slightly marked, compared to the perfectly grammatical (27) (a future or habitual deontic reading of (28) is of course possible). (28) improves considerably, in the epistemic use, when the object is introduced by a preposition (i.e., in the conative construction, 'eat on an apple'), which triggers an atelic reading. In short, the modal *måste* is not sensitive to the state-activity distinction. If anything, it cares about telicity, though even that is not clear.

The modal *borde* ('should'), is more picky. As shown below, it gives epistemic readings with lexical stative verbs, and copular constructions:

(29) a. Detta bröd borde innehålla tillräckligt med fiber
this bread should contain sufficient with fibers
'This bread should contain enough fibers' (- let's buy it!)

b. Kakan borde vara klar nu
cake.DEF should be ready now
'The cake should be ready now'

For activity verbs, the epistemic reading is impossible or very hard to get. If we change the modal in (27) to *borde*, and give the same context as above, it seems like the the epistemic reading is impossible:

(30) De borde spela fotboll därinne
they should play football there.in
'They should be playing footbal in there'

The most salient, or perhaps only, reading of (30) is a counterfactual one, i.e., they should play football in there but they don't.

However, even stative verbs with experiencer subjects seem to trigger deontic readings of the modal *borde*:

(31) Han borde verkligen älska sin fru
he should really love REFL.POSS wife
'He should really love his wife'

The most salient reading of (31) has a deontic flavor: it his moral duties to love his wife. It seems like the the deontic flavor *borde* is always the most salient one, or the only possible one, when the subject is animate. (This is not true for stative auxiliary verbs however, like *have* and *be*.) In that case, we learn nothing about the difference between stative and eventive verbs. It should be noted that it is not only the quality of the modality that is the issue here. What is further important is the temporal interpretation. In (30), an episodic present tense interpretation is hard to get. The most salient interpretation of (30) is a counterfactual interpretation, i.e., 'they should play football in there, but they don't'. The counterfactual reading is the most salient one in (31). Adding the adverbial *vid det här laget* ('at this point'), improves the epistemic, factual readings for stative predicates, as shown in (32):

(32) a. Vid det här laget borde han äga merparten av aktierna
'At this point, he should own the majority of the stock (taking into account the skillful businessman he is)'

b. Vid det här laget borde han älska sin fru
'At this point, he should love his wife. (given the time they have been married)'

For activity verbs, the epistemic reading is still hard to get, and the deontic reading has preferably a counterfactual interpretation:

(33) (??)# Vid det här laget borde de äta efterrätt.
At this point, they should be eating dessert. (given the time they started the dinner)

While I find (32-a-b) perfectly grammatical, (33-c) is highly still marked. As an answer to the question: 'do you think they will finish eating soon?', a much better answer would be (34-b), where a perfect of an inceptive verb is used.

(34) Vid det här laget borde de ha börjat med efterrätten.
'At this point, they should have started with the dessert'

The "sitta å"-construction can also give epistemic readings in the right context:

(35) Vid det här laget borde de sitta å äta middag på Grand Hotel.
at this here point should they sit å eat.INF dinner at Grand Hotel
'At this point they should be at the Grand Hotel eating dinner' (given that they usually go there on Fridays)

Let us for now at least conclude that *måste* and *borde* show slightly different selectional properties: *måste* can get an epistemic, present tense interpretation when embedding both stative and and eventive predicates, while *borde* does not easily get an epistemic, present tense (non-counterfactual) interpretation with eventive verbs

Summing up the the discussion about modals, it is hard to find a really sharp distinctions between eventive verbs and stative verbs.[12] Though, as we have seen, it is much harder to get present tense, epistemic readings of modals with eventive verbs in their complement, than with stative verbs. In English on the other hand, a progressive marked verb and a stative verb always equally easily trigger a present tense epistemic interpretation of the modal. Let's take that as an indication

that the simple infinitival of an activity verb in Swedish does not have the same properties as an infinitival progressive in English.

The fourth context where only stative verbs and progressives are licit in English is the complement of punctual ECM-verbs like *reveal* and *discover* (see (25)). In Swedish, none of these verbs can take ECM-complements. The closest we get in Swedish is the reflexive ECM/Raising verb *visa sig* ('show REFL'), which is more or less equal to the English construction 'turned out to INF'. A search in the Swedish tagged corpus PAROLE (http://spraakbanken.gu.se/parole/) on the string "visa/'visade/visar/visat sig V" ("Show(inf/pres/past/part) sig Verb") gives you around 700 hits. The most common verb in this context is *vara*, followed by *ha*. Otherwise, stative lexical verbs like *innehålla* ('contain') and *betså av* ('consist of') are also quite common. Only one or two of the predicates following *visa sig* could not easily occur in the simple present tense in English, showing that this construction clearly prefers stative verbs.

If we take the verb *lie*, as was used in (25) above for English ECM-constructions, the difference in grammaticality is not very strong, though the copula + NP complement (36-a) is clearly preferred over the verbal complement (36-b). The non-raising version is also perfectly fine with a full verb:

(36) a. Han visade sig vara en lögnare.
han showed REFL be a liar
'He turned out to be a liar'

b. ?Han visade sig ljuga.
he showed REFL lie.INF
int. 'He turned out to be lying'

c. Det visade sig att han ljög
it showed REFL that he lied
'It turned out that he lied'

The fairly mild effect seen above might be because of the inference from a habitual, or possibly stative, interpretation of *ljuga* in (36-b). If however an episodic reading is forced, an eventive verb seems to be outright ungrammatical. If we take (37) as a starting point, setting a context that forces an eventive reading, it turns out that a stative/copula verb is fine in the complement (37-a), while

an eventive verb is not. The eventive verb is however fine in the non-raising version (37-c):

(37) Jag letade efter min kollega...

I went looking for my colleague...

(38) a. Han visade sig vara på sitt kontor
he showed REFL beINF on REFL.POSS office
'He turned out to be in his office'

b. *Han visade sig undervisa
he showed REFL teach.INF
int. 'He turned out to be teaching'

c. Det visade sig att han undervisade
It showed REFL that he teach.PAST
'It turned out that he was teaching'

As pointed out in the discussion of (36), it seems like habitual interpretations are sometimes interfering. Still, however, habitual readings are much more marked in the infinitival complement of *visa sig*, than true states, as is shown below. Finite complements are not sensitive to the state-habitual distinction:

(39) a. Han visade sig äga halva företaget(State)
he showed REFL own.INF half company.DEF
'He turned out to own half of the company'

b. ??Han visade sig äta middag på Grand Hotel varje dag(Hab.)
he showed REFL eat dinner on Grand Hotel every day
'?He turned out to eat dinner at Grand Hotel every day'

c. Det visade sig att han åt middag på Grand Hotel varje dag
it showed REFL that he ate dinner on Grand Hotel every day
'It turned out that he ate dinner at the Grand Hotel every day'

Summing up, the punctual raising verb *visa sig* clearly does not allow episodic interpretations of infinitive activity verbs in its complement (38-b), and even strongly disfavors habitual interpretations (39-b). Stative verbs are however fine.

2.4 Summing up

The discussion so far has lead to two discoveries:

1. The Swedish simple past lacks certain properties that the English past progressive has. Telic past tense verbs in Swedish cannot get a "progressive" interpretation (i.e., an interpretation where topic time/reference time is within the event time), while the English past progressive clearly can (i.e., *when I arrived he was writing the letter*).

2. The Swedish simple infinitive lacks certain properties that the English progressive infinitive has. This is most clearly seen in the punctual raising verb, see (39-b) above, but also in the complement of epistemic modals. In both these contexts, the progressive form of a non-stative verb and a the simple form of a stative verb is licit in English, while only true states are licit in Swedish.[13]

From this we can conclude that Swedish does not have a covert progressive operator, at least not one that is applicable to infinitives and past tense forms. In section 4, I will claim that the present tense is not a true progressive in Swedish either. We have at the same time shown that the distinction +/−dynamic is syntactically relevant in Swedish, i.e., a −dynamic verb can be selected for, which shows that stative verbs are not just a sub-class of the activity verbs.

The findings so far can be summarized in the following table:

(40)

	Stative	Activity	Accomplishment	Achievement
Past$_{past}$	✓	✓	✓	✓
Episodic present$_{pres}$	✓	✓	✓	*/??
Past progressive$_{past}$	✓	✓	*	*
Epistemic *must*$_{inf}$	✓	✓	*/??	*
Epistemic *should*$_{inf}$	✓	*/??	*	*
Punctual raising$_{inf}$	✓	*/??	*	*

In the table above I have indicated which tense form the relevant verb surfaces in, i.e., past, present or infinitive. The difference in tense form however, is probably not of any true importance, which can be seen for example in the fact that infinitives have different properties depending on which verb they are embedded under.

Let us for now assume that Taylor's description of the difference between states and activities is correct: states are true at moments, activities are true at intervals/minimal stages. Let us further assume that the English progressive either creates a state (an in-progress state, according to Parsons 1990) or adds a modality (as in Dowty 1979). Both of these alternatives will give progressives the same status as states, i.e., they can be true at moments.

The meaning postulates that Taylor gives should be universal. It is not likely that an English speaking person should need more time to tell a 'standing on one leg' -event or a 'hovering'-event from a 'running'-event than a Swedish speaking person. If activities can only be true at intervals in English, it would be weird if they could be true both at intervals and moments in Swedish. We have however shown that simple activity verbs in Swedish can occur in at least some contexts where the reference time/topic time seems to be punctual (i.e., present tense and progressive past tense). We seem to have a contradiction: a predicate that can only be true at intervals in Swedish is true at moments. We have however also shown that in certain other contexts, only stative verbs can occur. If we take Taylor's meaning postulates to be correct, we have to say that it is only these latter contexts that are restricted to predicates that can be true at moments.

I will for the rest of the paper agree with Taylor's idea that there is a deep ontological difference between states and activities. The difference between English and Swedish in other words is not that activities are true at moments in Swedish but not in English. The difference lies rather in the constraints on the choice of topic time/reference time.

In the next section, I try to capture the differences between English and Swedish by following certain ideas developed by Demirdache and Uribe-Extebarria. I will however show that their system contains several flaws. My own version of their system will be presented in section 4.

3 Demirdache and Uribe-Etxebarria (2000), and the importance of topic time

Demirdache and Uribe-Etxebarria (2000) (D & U from now on) presents a simple theory about tense and aspect mainly built on Klein (1994). In their view, both tense and aspect are dyadic predicates. It is similar to Reichenbach's system, but importantly uses intervals instead of time points, which allows them to handle the imperfective/perfective-distinction. In their system, tense and aspect are both dyadic predicates that relate different times. Tense relates the utterance time (UT-T, = speech time) and the assertion time (AST-T, =reference time, topic time), and Aspect relates assertion time and event time (EV-T). Utterance time is still a point for them, but assertion time and event time are intervals. The temporal predicates Tense and Asp can come with three different values: after, before and within. This gets the different complex tenses for English:

1. UT-T within AST-T = present, AST-T within EV-T = progressive

   (41) I am eating

2. UT-T after AST-T = past, AST-T after EV-T = perfect

   (42) I had eaten

3. UT-T before AST-T = future, AST-T before EV-T = prospective

   (43) I will be eating

Their system cannot yet account for the simplex tenses in English. In a follow up article Demirdache and Uribe-Etxebarria (2004), they introduce an equal-relationship, which may hold between

AST-T and EV-T, to give the simplex tenses. The past perfect, the simple past and the past progressive then come out in the following way

- Past perfect: UT-T after AST-T, AST-T after EV-T ('He had built a house')
- Simple past: UT-T after AST-T, AST-T = EV-T ('He built a house')
- Past Progressive: UT-T after AST-T, AST-T within EV-T ('He was building the house')

This seems intuitively correct. However, they cannot yet explain why eventive verbs are bad in the simple present tense. Let's go back to the difference between a stative verb and an activity verb again:

(44) a. He owns the brewery.
b. We are playing football.

If we associate the progressive form with the "within"-relation between assertion time and event time, and if we associate the simple form with equal relation between assertion time and event time (as presumably D & U do), these two statements should have two different logical forms:

- Stative, (simple) present tense: UT-T within AST-T, AST = EV-T
- Eventive, (progressive) present tense: UT-T within AST-T, AST-T within EV-T

Remember that the assertion time is an interval, and that it necessarily needs to be that to be able to include the utterance time. When the assertion time is equal to the event time, as in the simple past, it is obvious that the assertion time can be fairly long, as in (45):

(45) a. He ran for two days
b. UT-T after AST-T, AST-T = EV-T (AST-T = EV-T = 2 days)

Given that the assertion time can be a stretched out interval, it should be able to be as big as minimal stage of an event, also in cases when the utterance time is within the assertion time. But

this is contrary to fact, since as we have seen, the simple present is ungrammatical in English when applied to non-states.

(46) a. #He runs (not felicitous in the episodic interpretation)

b. UT-T within AST-T, AST-T = EV-T

In other words, it is surprising that activities cannot occur in the simple present tense, in fact, even the absence episodic readings of accomplishment verbs in the present tense is surprising, given D & U's assumptions.

Further, if we take adverbial clauses like 'when I arrived' to give an exact value for the assertion time/topic time, then it is not clear why they pick out the initiation of the event, rather than the process part or the end of the event ((46-b) gives representation thar D & U would give):

(47) a. When Peter arrived, Bill wrote the letter → the whole letter-writing event took place after my arrival

b. UT-T after AST-T, AST-T = EV-T

Since the temporal adverbial picks out a point in time here (since *arrive* is punctual, we get a a punctual assertion time), and we therefore do not expect the assertion/topic time to be able to cover the whole event time. But there is no good reason for the assertion time to pick out the beginning of the event, rather than the end or any arbitrary point within the event. Consequently, the assertion time in (47) is not equal to the event time but rather precedes the event time. A better description of (47-a) would be the following:

(48) UT-T after AST-T, AST-T before EV-T

I will from now on disregard D & U's equal-relation. The assertion time, I claim, is rather located just before the event time in the simple tenses, unless the predicate is stative (when it could also

be located inside the event). The relation sketched in (48) is in D & U's system used for capturing the prospective (*he would later buy a house*). I will have to assume that the prospectives have a different temporal structure, presumably one that involves some kind of modality.

Note that the assertion time will have to be located outside the event time in atelic simple past tense statements like *Yesterday John ran for two hours*. Presumably, it sets the starting point here as well, and the temporal *for*-phrase measures the time from the assertion time (which by default is set to the beginning of the event) and the end of the event.

One might object that endpoints also can be picked out by reference time, for example in (49), when an end-point-giving particle has been added to the verb, as in the following examples from Swedish:

(49) a. Bill drack upp ölen när jag kom
Bill drank up beer.DEF when I came
'Bill finished/drank up the beer when I came'

b. Han skrev färdigt brevet när jag kom in i rummet.
han wrote finishPART letter.DEF when I came in in room
'He finished the letter when I entered the room'

In these cases, one intuitively assumes that the event that ends at or just after my entering, has gone on for a while before my entering. In other words, the assertion time seems to be located within the event (though towards the end), even though the event is telic. That would go against basically everything that has been said in this paper. I think however that it is wrong to treat the cases above as having assertion time located within the event (or at the end). Rather, I think that the particles/adverbs *upp* and *färdigt* seen above have scope over the whole event, and that they create either achievements or accomplishments with little duration. The argument for this is the following: there is no implication in (49-a) that Bill was involved in any beer drinking before my arrival. Take for example the following sentence:

(50) a. När jag kom fram till baren drack Bill upp Johans öl.

When I came up to bar.DEF drank Bill up John's beer

'When I reached the bar, Bill finished John's beer'

Here, Bill might just have entered the scene right before me, and he might not have been involved in any beer-drinking what so ever before my arrival. In other words, we have no evidence that an end-point focusing particle verb like 'drink up' includes any stretched out process or activity (of drinking) in its semantic or syntactic representation. Rather we have a predicate that denotes the short finishing stages of a drinking event.

To summarize, Demirdache and Uribe-Etxebarria (2000) taken together with Demirdache and Uribe-Etxebarria (2004) have no obvious way of explaining the nature of the progressive (i.e., why it is sensitive to the stative - non-stative distinction). Simple tenses are predicted to be allowed in contexts where the speech time is located inside the assertion time (i.e., present tense), and topic time is equal to the event time. Neither does the equal-realtion give the right semantics for perfective simple tenses, where the topic time often gives the inceptive point of the event.

4 Sketching an alternative solution

I will here propose that there is basically one major difference between English and Swedish that gives rise to the observed patterns: whereas topic time in English always is punctual, topic time in Swedish can span an interval that at least corresponds to a minimal stage, in Taylor's terms. This makes it possible for topic time in Swedish to be located within an activity predicate. In English, this would not be possible, since topic time is only a point in time, and activity predicates need intervals. The progressive operator in English creates predicates that are true at moments from predicates that otherwise only are true at intervals.[14]

I would like to suggest that even though topic time may be an interval in Swedish, it can never be located within a telic predicate. This is presumably because of the lack of homogeneity of the telic predicate (that is, there is no minimal stage of a telic predicate that will cover both the process and the cumulation of the telic predicate). This is presumably true for all languages: telic

predicates themselves provide the temporal shape of the event, and no internal modification of the event is possible. Topic time is hence always located either before or after the event, if the event is telic. This explains the fact that Swedish allows an ongoing interpretation for atelic predicates in the simple present, but does not do so for telics. Similarly, the topic time as indicated by a 'when'-clause can be located within both states and activity predicates in Swedish, but not within telic predicates.

We saw in section 2.3 that some predicates select for states in Swedish as well. To capture this, we have to say that individual predicates can themselves determine the duration of the topic time, though this is most likely only true for functional or semi-functional verbs (i.e. modal and temporal verbs).

(51) a. måste = short duration

b. borde = punctual

c. visa sig = punctual

In Swedish, we must further assume that what looks like a punctual temporal adverbial, like *when I arrived*, actually does have a short duration.

I would like to end with saying a few words about the present tense in Swedish. As we have seen, clearly telic predicates can in fact occur in the present tense in Swedish, as shown in (52):

(52) a. Vad gör du? Jag äter upp tårtan från igår
What do you? I eat up cake.DEF from yesterday
'What are you doing? I'm eating up the cake from yesterday'

b. Jag åt upp tårtan på fem minuter/*i fem minuter
I ate up cake.DEF on five minutes/for five minutes
'I ate up the cake in five minutes/*for five minutes'

The temporal adverbial in (53-b) clearly show that we are here dealing with a telic predicate. I will claim that in examples like (52-a), the topic time is in fact located before the event, that is, it has the following temporal structure:

(53) UT-T within AST-T, AST-T before EV-T

This would mean that the simple present tense in (52-a) in fact gives a future interpretation. Two different tests provide evidence for this analysis. First, consider the following example:

(54) Jag äter två äpplen
I eat two apples
'I'm eating two apples'

(54) is not felicitous in a situation where I have just finished one apple, and I have started eating the second one (even though I can later say about the situation: 'I ate two apples'). In other words, the event of eating two apples must be located after the utterence time (even though it might have started earlier).[15]

Another piece of evidence for the future analysis of the telic present is given below in (55). In (55) a telic predicate is given, together with the adverb *fortfarande* ('still'). The adverb *fortfarande* implies that the event has been going on for a while (at least since before the speech time). As indicated below, this sentence is not grammatical in Swedish, while the English translation is, in the progressive. This shows that the Swedish present tense is not equal to the English progressive:

(55) *Jag skriver fortfarande brevet
I write still letter.DEF
Int. 'I'm still writing the letter'

When the sentence is turned atelic, in the conative construction, the adverb 'still' works fine, showing that we are dealing with a true ongoing interpretation:

(56) Jag skriver fortfarande på brevet
I write still on letter.DEF
'I'm still working on the letter'

In (57) the sentence is given with the adverb *nu* ('now'), with a grammatical result. In this case, we

would have to assume that the relevant part of the event is taking place after the speech time.

(57) Jag skriver brevet nu
I write letter.DEF now
'I'm writing the letter right now'

The next set of examples shows the same thing, but here with the particle-verb *äta upp* ('eat up'), and with the adverb *redan*, which can also be used as a telicity test (in the present tense). As shown in (58-c), telic predicates can occur in the present tense when embedded under a verbal construction like *hålla på att* ('is about to', or 'is doing'). This construction presumably is very similar to the English progressive.

(58) a. Kalle äter (??redan) upp tårtan
Kalle eats (??already) up cake.DEF
'Kalle is already eating up the cake'

b. Kalle äter redan/fortfarande tårta
Kalle eat already/still cake
'Kalle is already/still eating cake'

c. Kalle håller redan på att äta upp tårtan
kalle hold already on to eat up cake.DEF
'Kalle is already eating up the cake/Kalle is already about to eat up the cake'

This shows, that even if both telic and atelic predicates can appear in the simple present tense, they are qualitatively different. The atelic predicates can give an ongoing reading (i.e., topic time within event time), while telic predicates always are "atomic". Reference time cannot be located inside telic/perfective events.

We have now ended up with a system in which telic predicates in the present tense and telic predicates in the past tense have completely parallel representations, in that both force the assertion time to occur before the event time:

(59) a. Jag äter ett äpple

I eat an apple

b. UT-T within AST-T, AST-T before EV-T

(60) a. När jag kom in åt han (*fortfarnde) ett äpple
When I came in, he (*still) ate an apple

b. UT-T after AST-T, AST-T before EV-T

5 Summing up

In the story I have given above, I hypothesize that the following four statements are universally true, i.e., that all languages adhere to them:

1. There are three possible relations between speech time, topic time and event time: Before, After and Within (as originally proposed by Demirdache and Uribe-Etxebarria 2000).

2. Topic time cannot be located within a telic predicate, presumably because of the lack of homogeneity of the telic predicate (that is, there is no minimal stage of a telic predicate that will cover both the process and the cumulation of the telic predicate).

3. Speech time is punctual.

4. Stative predicates are the only type of predicates that are true at moments.

Below I summarize the main factors that distinguish English from Swedish in this domain, and hence must be able to vary from language to language.

1. Topic time: Can be specified as punctual in a language (i.e., in English), while it can span larger intervals in other languages, as in Swedish. This means that the topic time can only be located inside predicates that are true at moments in English.The Swedish system seems to be more common cross-linguistically, which suggests that topic time in general can have duration.

2. Operations for making predicates true at moments: In English, the progressive can turn basically all predicates into states, i.e., something that is true at moments. In Swedish, there is no obvious counterpart to the progressive, though we have seen a couple of possible Swedish counterparts of the English progressive (note that they would not have to be used in Swedish as often as in English, given that atelic predicates can surface in the simple form in most 'progressive' contexts).

3. Morphological syncretism between the different tenses/aspects: In Swedish, for example, the same form (the present) can be used both as a present tense (i.e., speech time is within the topic time), future tense (i.e., speech time before the topic time), and on top of that as habitual tense/aspect. In English, no future reading is possible for the simple present tense. In general, there is a huge cross-linguistic variation in how the different available tense forms in a given language takes on the different logical possible tenses and aspects.

It should further be noted that I don't take the progressive morphology to be a direct reflex of the within-relation between topic time and event time. Rather I take it to create a predicate that is true at moments, which makes the within-realtion possible. Neither English nor Swedish then morphologically mark the relation between topic time and event, with the possible exception of the the after-relation, if one takes Reichenbachs analysis of the perfect to be correct (i.e., the we see the perfect form when topic time is located before the event).

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Notes

[1] Linguists tend to disagree about whether the future should be counted as a Tense or a Mood (or perhaps a type of aspect). That issue is however not relevant for this article, since it deals mainly with present and past tense.

[2] Sometimes a fifth verb class is identified, namely Semelfactive verbs (see Smith 1991), like i.e., *jump*. These verbs get an iterative interpretation when they appear in typical imperfective contexts: *he was jumping for ten minutes*. This class will not be discussed in this paper.

[3] I will stay away from the so called reportive use of the simple present tense, as ”And the Maryland delegation goes two to one for the democrats!” (uttered by a newscaster) (example from Parsons (1990), see further his chapter 12-13 for for a more serious treatment of the reportive use)

[4] The reportive reading seems to be impossible to get in this case. This might be because of the first person plural subject (it is hard to be a reporter of an event where you are also the agent). It seems to be possible with a third person subject, like ”And Sweden wins the the match”

[5] The exception being performative verbs like ‘promise’, as discussed in Austin (1962). Here the speech time necessarily overlaps with a telic event, since uttering a performative verb (in the right context) also triggers an event.

[6] Reichenbach later introduces the diacritic ‘$\rightarrow$’ that can be combined with E, and which indicates that the event spreads over time. However, as noted by Demirdache and Uribe-Etxebarria (2000), the semantics of this diacritic says nothing about wether the event culminates (has an endpoint) or not. It could therefore be used both for a progressive and an accomplishment, like ‘we built the house in five years’.

[7] Dowty discusses only the English progressive, but his solution must hold for all predicates that give rise to the imperfective paradox.

[8] Dowty has no good explanation for why activity verbs don’t give rise to the imperfective paradox. The sentence *He is running* contains modality equally to an accomplishment verb, and should therefore give rise to the paradox as well.

[9]Vikner and Vikner (1997) for an overview of how different tense forms cover different functions in French, English and Swedish.

[10] Note that telic predicates are perfectly fine in the habitual, as in ‘He drove to the store every day’ or ‘he re-wrote the letter every day’.

[11] When a modal verb takes an infinitival perfect complement, like *John must have murdered Bill*, an epistemic reading is always possible (actually, in Swedish, it is the only reading available). I will assume following Parsons (1990) and Katz (2003) that perfects are derived states, though this point is of no importance for this paper.

[12] I have not discussed the modal *kunna* (‘can’) here. It can, as in English give rise to an epistemic interpretation and an ability interpretation. Here as well, the modal easily gets an epistemic interpretation with a stative verb, though only

in very special contexts, if ever, with eventive verbs. The judgements are tricky in this case as well, but my intuitions tell me that *kunna* has more or less the same restrictions as *borde*.

[13] In Swedish, the *sitta å*-construction probably derives states, just like the English progressive. Non-stative verbs can therefore surface in the complement of *visa sig* and the modal *borde* when they are in the complement position of *sitta å*

[14]For the moment, I don't know how this is done. Either the progressive has some modal implications, or it simply creates states.

[15]It should be noted that the English progressive is similar, i.e., *I am eating two apples* is only true if the two apples are still being eaten. I take that to be a restriction on the progressive operator.

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