Revisiting tense and aspect in English infinitives

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Background: Wurmbrand (2014) divides English infinitive-selecting predicates into 3 classes:

- I. Simultaneous attitude predicates (claim, believe...)
- II. Future-oriented predicates (expect, hope...)
- III. Simultaneous non-attitude predicates (try, seem...)

Verbs in **class I** do not allow mismatching temporal modifiers in the matrix and embedded clause (1a), and do not allow eventive predicates in the infinitival complement (IC) (1b):

- 1a. *Yesterday Mary claimed to be successful tomorrow.
- 1b. Mary claims to sing in the shower.

[OK on habitual reading only]

Wurmbrand posits a perfective head (PERF) in the complement of class I verbs. PERF's semantics requires the event time to be properly included in the reference time (ie the 'now' of the attitude holder, AH). Mismatch between embedded event time and (what AH takes to be) the actual time is thus disallowed. Moreover, the event time is too short for a singing event (say).

Class II allow mismatching temporal modifiers (2a) and embedded eventive predicates (2b):

- 2a. Yesterday Mary expected to be successful tomorrow.
- 2b. Mary expects to sing in the shower.

[OK on both habitual and eventive reading]

Here Wurmbrand posits a *woll* head, whose semantics encodes futurity, thus allowing temporal mismatch. Since the duration of the event is unrestricted, eventive predicates are licensed. **Class III** verbs do not allow mismatched temporal modifiers (3a), but do allow eventives (3b):

- 3a. *Yesterday Mary tried to sing in the shower tomorrow.
- 3b. Mary tried/is trying to sing in the shower.

(The facts for *seem* are intricate; due to space I set them aside.) Wurmbrand argues that these ICs contain PERF, but the reference time is the matrix event time so there can be no temporal mismatch. Eventive predicates are licensed, since the reference time is not the subjective 'now', and hence may be longer.

Arguments against Wurmbrand's analysis: Argument 1: Positing PERF in class III infinitives incorrectly predicts that the embedded event cannot be longer than the matrix event:

4. John tried for a month to live on a budget for a year.

[Pearson 2015, ex 83]

Argument 2: Blaming the impossibility of eventive predicates with class I verbs on a requirement that the event time be very short incorrectly predicts that achievement predicates, which denote instantaneous events, should be acceptable:

5. *Mary claimed to find the car keys. (cf ✓ Mary claimed to have found the car keys.)

Argument 3: The simultaneous attitude verb *pretend* (6a) <u>can</u> embed eventive predicates (6b):

- 6a. *Yesterday Mary pretended to be successful tomorrow.
- 6b. Mary pretended to sing in the shower.

[OK on both habitual and eventive readings]

This suggests that the ban on eventive predicates is an idiosyncratic property of the verbs in question, and stems from their lexical semantics together with the syntax of the infinitive. Furthermore, the ban returns when *pretend* takes a finite complement:

7. Mary pretended that she sang in the shower.

[OK on habitual reading, or with backwards shifted embedded past]

Argument 4: Following Abusch (2004), Wurmbrand argues for the presence of an element *woll* that shifts to a time in the future w.r.t. a syntactically encoded 'now' by showing that *might* in the infinitive can be anchored to this 'now'; hence 'now' must be syntactically encoded.

8. Paul decided to have a conversation_{t=future} with the woman who might_{t=now} have a crush on him.

I argue that what this example shows is that so-called 'de credito' readings that have been discussed with counterfactual attitudes (Yanovich 2011) are also found in the temporal domain; the former involves anchoring to belief worlds rather than counterfactual (eg imagined) worlds, while the latter involves anchoring to the present. Just as the former does not require encoding of doxastic worlds in the syntax, neither does the latter require encoding of the subjective 'now'.

9. Paul imagined having a conversation_{w=counterfactual} with the woman who might_{w=doxastic} have a crush on him.

Proposal: PERF is absent across all three IC types. I focus on Class I and II ICs which I argue have uniform syntax with a semantically empty T head, and no *woll*; the observed data arise from the verbs' semantics (cf Katz 2001, Pearson 2015). For example, statives like *believe* impose the subinterval property on the IC; this is unsatisfied with eventive predicates. Entries for *claim* and *expect* are given below:

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10. [[claim]] = λPλxλtλw. ∀<w', t', y> ∈ claim<sub>x,w,t</sub>, P(y)(t')(w')
Consequence: Embedded event time = 'now' of attitude holder
11 [[expect]] = λPλxλtλw. ∀<w', t', y> ∈ Dox<sub>x,w,t</sub>, ∃t'': t' < t'' & P(y)(t'')(w')</li>
Consequence: Embedded event time = some time later than 'now' of attitude holder
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With *claim*, the 'now' of the AH is of equal duration to the claiming event - however long it takes to produce the utterance. This is too short for an event like singing, but too long for an instantaneous event like finding keys. Pretending events involve either producing an utterance, or acting something out; in the latter case, they may be of either short or long duration - long enough to support an event like singing, or short enough for an event like finding keys. Thus (6) requires that the singing was acted out, while 'Mary pretended to be a singer' may involve either acting out or an utterance. An open question, hitherto unnoticed in the literature, is why (7) is bad on the simultaneous eventive reading. I leave this for future work.

References: Abusch, Dorit. 2004. On the temporal composition of infinitives ◆ Katz, Graham. 2001. (A)temporal complements. ◆ Pearson, H. 2015. The semantics of partial control. *NLLT*. 1-48. ◆ Wurmbrand, S. 2014. Tense and aspect in English infinitives. *Linguistic Inquiry* 45(3): 403-447. ◆ Yanovich, I. 2011. The puzzle of counterfactual de re. *Proceedings of SALT*.