

Infinitives are tenseless

Synopsis. A common view since Stowell (1982) holds that infinitival complements can be tensed or tenseless, and that the presence vs. absence of infinitival tense correlates with different syntactic structures or properties (see e.g., Bošković 1996, 1997, Martin 1996, 2001, Pesetsky 1992, Pesetsky and Torrego 2004, Landau 2000, Wurmbrand 2001). This paper argues against the presence of any kind of infinitival tense and suggests alternative accounts for the properties previously attributed to tense.

Infinitival future vs. finite future. While there is some disagreement regarding the exact classification of tensed vs. tenseless infinitives (see Table 1), future irrealis infinitives are generally considered to involve tense. Comparing these infinitives with finite future complements, however, reveals two crucial differences. First, while finite future must be evaluated relative to the utterance time in English (cf. (1)a), infinitival future can refer to a time before the utterance time (cf. (1)b). Second, while a past tense complement in the scope of a finite future cannot be interpreted as occurring simultaneously with the future event (cf. (2)a), a simultaneous interpretation is possible for past tense complements embedded under a future infinitive (cf. (2)b).

Proposal. I argue that the differences between finite and infinitival future follow from the presence (finite) vs. absence (non-finite) of tense. First, a standard account of (1)a is based on two assumptions (see among others Dowty 1982, Abusch 1988, 1997, 1998, Ogihara 1996): i) (finite) future is not a simple tense but composed of PRES tense plus a modal *woll* which entails future; ii) English PRES is *absolute*—i.e., evaluated with respect to the utterance time. The PRES tense part of the future is then responsible for the absolute nature of English future contexts such as (1)a. Assuming, on the other hand, that infinitival future lacks the PRES tense part and only involves the modal *woll*, it follows that infinitival future does not require an absolute interpretation—i.e., infinitival future does not have to refer to a time after the utterance time.

Second, I assume that English is subject to the *Sequence of tense* rule in (3). Essentially, this rule states that a tense is (optionally) deleted if it is in the scope of another tense with the same value (PRES or PAST) and no other tense is intervening between the two tenses. The difference between (2)a and (2)b then follows from the different structures suggested:

(2)a:	[_{Matrix} PAST <i>promise</i> [_{CP} PRES <i>woll tell</i> [_{CP} PAST <i>meal</i>
(2)b:	[_{Matrix} PAST <i>promise</i> [_{Infinitive} ∅ <i>woll tell</i> [_{CP} PAST <i>meal</i> SOT

Since in (2)a the highest PAST is not local enough for the lowest PAST, deletion of the latter cannot apply and hence a simultaneous interpretation is not possible. In contrast, infinitival future lacks tense, and hence the highest PAST will be the local tense for the lowest PAST, allowing deletion and as result a simultaneous interpretation. If, on the other hand, infinitives were to involve (any type of) PRES tense, the difference between (2)a and (2)b is left unexplained.

Lastly, the examples in (4) show that infinitival tense is also crucially different from *would* (i.e., PAST + *woll*). While the assumption of a silent *would* in infinitives (Martin 1996, 2001) would account for (1) and (2), this account runs into problems for cases such as (4). As shown in (4)a, non-conditional *would* is impossible embedded under future. I assume that this follows from a special obligatory SOT requirement associated with *would* in certain contexts. However, since *would* in (4)a is not in an SOT environment (PAST is under PRES; see (4)a'), SOT cannot apply, resulting in ungrammaticality. The minimally different infinitival construction in (4)b, on the other hand, is fully grammatical. This difference is unexpected if infinitival tense corresponds to *would*. It does follow, however, from the proposal here. Assuming that infinitives lack tense (see (4)b'), the special *would* requirement does not apply. Moreover, the tenseless structure correctly predicts that deletion of the lowest PAST is impossible in this case since it is not under another PAST. A structure involving *would* in the infinitive, on the other hand, would predict that SOT of the lowest PAST should be possible.

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Table 1: [\pm Tense] in infinitives	Null Case	Pesetsky (& Torrego)	Landau	Wurmbrand
Future irrealis	[+tense]	[+tense]	[+tense]	[+tense]
Implicatives	[+tense]	[-tense]	[-tense]	[-tense]
<i>try</i>	[+tense]	[+tense]	[-tense]	[-tense]
Factives	[+tense]	[-tense]	[+tense]	[+tense]

- (1) a. *Leo decided a week ago that he will go to the party (*yesterday)* party: *before UT
 b. *Leo decided a week ago to go to the party (yesterday)* party: ^{OK}before UT

- (2) a. *John promised me yesterday that he will tell his mother tomorrow that they were having their last meal together (when...).*

*Interpretation: *John promised me to say to his mother tomorrow “We are (now) having our last meal together”.*

- b. *John promised me yesterday to tell his mother tomorrow that they were having their last meal together.*

Possible interpretation: *John promised me to say to his mother tomorrow “We are (now) having our last meal together”.*

- (3) The SOT rule [Ogihara 1996:134]

If a tense feature B is the local tense feature of a tense feature A at LF, and A and B are occurrences of the same feature (i.e., either [+past] or [+pres]), A and the tense associated with A (if any) are optionally deleted. N.B.: (i) The tense features include [+past] and [+pres] and nothing else. (ii) A tense feature A is “in the scope” of a tense feature B iff B is associated with a common noun and asymmetrically c-commands A, or B is associated with a tense or a perfect and asymmetrically commands A. (iii) A tense feature B is the local tense feature of a tense feature A iff A is “in the scope” of B and there is no tense feature C “in the scope” of B such that A is “in the scope” of C.

- (4) a. **John will promise me tonight that he would tell his mother tomorrow that...*
 [OK if conditional]
 b. *John will promise me tonight to tell his mother tomorrow that they were having their last meal together (when...).*

*Interpretation: *John will promise me tonight to say to his mother tomorrow “We are (now) having our last meal together”.*

- (4)a': *_[Matrix] PRES *woll promise* _[Infinitive] PAST *woll tell...* *SOT/*no SOT
 (4)b': _[Matrix] PRES *woll promise* _[Infinitive] \emptyset *woll tell* [_{CP} PAST *meal* *SOT

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