

# Some structural *dis*analogies between pronouns and tenses

Bronwyn M. Bjorkman (Queen's University)

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## 1 Background

**A classic view:** *tenses* are like *pronouns*.

- Partee (1973) *Some structural analogies between pronouns and tenses in English*:  
“I will try to show that there are uses of the tenses parallel to each of the uses of the pronouns, suggesting that the best representation of the English tenses should be structurally similar to the representation of pronouns (leaving open for the time being what form that representation should take).” (602)
- Kratzer (1998) *More structural analogies between pronouns and tenses*

**Reasons to re-evaluate this view:**

- More sophisticated views of **pronouns** (e.g. Déchaine and Wiltschko 2002)
  - pronouns aren't (always) (just) atomic variables: complex internal structure
  - tense, by contrast, remains a head—structurally simple T/Infl.
- More sophisticated views of **tense**, particularly its interaction with modality and aspect.
  - these interactions complicate several of the parallels with pronouns.

**A broader question:** What does it mean to say that tense is non-pronominal?

Several possibilities—one of which is more potential variation in the semantics of tense than has usually been assumed.

Important to distinguish between whether tense is **syntactically** a pronoun, and whether there are temporal variables in the semantics (or the syntax).

**Organization of the talk:**

§2 Partee (and Kratzer)'s analogies

§3 Growing apart: the current disanalogies

§4 Re-evaluating the analogies

§5 Taking stock: pronominal tense

## 2 Proposed analogies between pronouns and tenses

### Where did the pronominal tense hypothesis come from?

- Partee (1973): 4 analogies, and one “shared non-property”
  1. Referential uses of tense
  2. Anaphoric uses of tense
  3. Bound variable uses of tense
  4. Scope interactions for tense
- +1. Both distinct from “nonpronominal term phrases”
- Kratzer (1998):
  5. A further analogy involving Feature Transmission and uninterpreted  $\varphi$  / tense features.
  6. Nonpronominal tense in English vs. pronominal tense in German.

### 2.1 Tense as Referential

- Pronouns can be **deictic**, as in (1).
- Partee observes that tenses might have have similarly referential uses, as in (2).

(1) He shouldn't be in here.

(2) I didn't turn off the stove.

- (2) doesn't mean what we might expect it to, if tense were a sentential operator (?):
  - Not PAST>NEG: i.e. there is *some* past time at which I didn't turn off the stove.<sup>1</sup>
  - Not NEG>PAST: i.e. there is **no** past time at which I have turned off a stove.<sup>2</sup>
- Instead, refers to some particular time in the contextually-relevant past, at which I failed to turn off the stove.
- And just as the past tense can behave like a referential pronoun, Partee observes that the present tense, like the pronouns *I* and *you*, is **indexical**: (usually) referring to NOW, whenever the NOW of the utterance happens to be.<sup>3</sup>

(3) I am here (now).

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<sup>1</sup>One hopes this is trivially true.

<sup>2</sup>Likewise.

<sup>3</sup>Partee says that the Past tense is often “vague” in its reference, and compares it to the use of *they* in *they haven't installed my telephone yet*. “These are not picking out particular referents in the way we generally think of deictics doing; but they are certainly not generic or anaphoric either. ‘They’ in [(1)] seems to be referring to whoever it is that's supposed to install the telephone, and *Past* in [(2)] seems to refer to whenever it was that John went to school.” (603) This might be the first reference to non-specific, arguably singular, *they* in the generative literature, though it is not perfectly clear that Partee has in mind a singular interpretation for *they*.

## 2.2 Tense as Anaphoric

- In (4), the pronoun *it* in the second clause corefers with the *the car* in the first.
- Similarly, according to Partee, in (5) the tense of the second clause refers to the same time as the tense in the first clause.

(4) Sam took the car yesterday and Sheila took it today.

- (5) a. Sheila had a party last Friday and Sam got drunk.  
b. When Susan walked in, Peter left.

- In examples like (5b) it is not clear whether the best analysis is in terms of coreference or binding (on analogy to e.g. free relatives)—we turn next to more clearly bound variable uses of tenses.

## 2.3 Tense as a Bound Variable

- In a sentence like (6), Partee suggests (as remains standard) that *will* is a present tense modal, allowing the modal to be evaluated from the present time.

(6) I will stop talking immediately.

- But she observes that in a sentence like (7), the future meaning of *will* is **not** calculated from NOW, but from the time of the temporal adjunct:

(7) When my time is up, I will stop talking immediately.

- Partee suggests that the most natural analysis of this pattern is that the present tense of *will* is **bound** by the tense in the *if*-clause.
- Other cases involve yet more obvious quantification over times, via quantificational adverbs like *never* or *always*:

(8) My brother never answers when I call his phone.  
(cf. *no one... they*)

(9) My least favourite professor always gave assignments that were due the next day.  
(cf. *everyone... they*)

## 2.4 Scope Interactions

- Finally, Partee identifies a scopal interaction in examples like (10), related to whether the past tense in *everything (that) they wanted* is interpreted referentially (as a specific time in the past), or anaphorically (to the time of wanting).

(10) If my friend had gotten a Game Boy Advance, they would have had everything they wanted.

- She points out that this is parallel to the usual ambiguity of sentences with potentially coreferential pronouns: also in (10), *they* can similarly be interpreted as referring either to *my friend* or to some other third person.

## The shared disanalogy

- Partee identifies **time adverbials**, as in (11) as the temporal equivalent of full noun phrases (“full term phrases”)

(11) We climbed Mt. Baker **three weeks ago**.

- She observes that unlike pronouns, however, tenses co-occur with such definite time descriptions—at least in languages like English—which weakens the analogy.
- She mentions that the situation may differ in other languages—no specific language is mentioned, but “optional tense” languages might fit this description.

## 2.5 Uninterpreted tense and pronominal features

- Kratzer (1998) discusses a further parallel between bound variable uses of tenses and pronouns, involving a proposed mechanism of Feature Transmission under semantic binding.
- Heim (2008, and previous unpublished sources) notes that certain bound variable pronouns appear to bear  $\varphi$ -features that are not interpreted:

(12) Only I did my homework.

*Meaning 1:* Nobody else did my homework.

*Meaning 2:* Nobody else did **their** homework.

- Heim proposes that when *my* in (12) is interpreted as a bound variable (Meaning 2), it receives its  $\varphi$ -features via **Feature Transmission**: these features are supplied for the purposes of morphosyntactic realization, but are not present at LF.
- Kratzer (1998) suggests that a similar view is possible for embedded tense in Sequence of Tense contexts, where an embedded past tense clause can be interpreted as simultaneous with the time of evaluation for the embedding predicate:

(13) They **said** that they **were** doing their homework.

- This has become the dominant view of Sequence of Tense in the semantic literature, developed in perhaps the most syntactic detail by von Stechow (2002).

## 2.6 Strictly pronominal tense in German

- Finally, Kratzer observes that *unlike* pronouns, the past tense in English is possible even when the context does not provide a relevant past time for it to refer to.
- If you are looking around churches in Italy, for example, (14) is felicitous without any prior discourse.

(14) Who built this Church? Borromini built this church.

- If (14) has a time pronoun in it, this is perhaps surprising—the time pronoun would have to be nonspecific!
- In Standard German, by contrast, the simple past is infelicitous in such contexts (15)—the present perfect must be used instead (16).

(15) \*Wer baute diese Kirche. Borromini baute diese Kirche.  
Who built this church? Borromini built this church.

(16) Wer hat diese Kirche gebaut? Borromini hat diese Kirche gebaut.  
Who has this church built? Borromini has this church built.

- Kratzer argues that this difference can be understood if true semantic past tense does involve definite time reference.
  - In Standard German the morphological past tense always does exactly this. The morphological perfect, by contrast, introduces the past time quantificationally (as is typical for viewpoint aspect).
  - In English, by contrast, the morphological “past tense” sometimes reflects a true semantic past, with reference to a past time, but sometimes instead realizes a semantic present perfect.
- While this weakens the parallels between pronouns in tenses in English, it strengthens a more general view that tense in at least some languages is pronominal.

## 3 Growing apart: increasing disanalogies

At one point there were growing *syntactic* parallels between pronouns and tenses:

- Abney (1987): parallels between DP and TP (and earlier, Postal 1966)

Pronoun = D

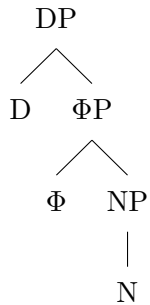
Tense = T

So far so good!

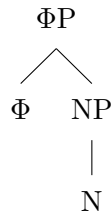
But more recently: growing structure **inside** pronouns.

- Déchaine and Wiltschko (2002):

**Referential:**



**Variable:**

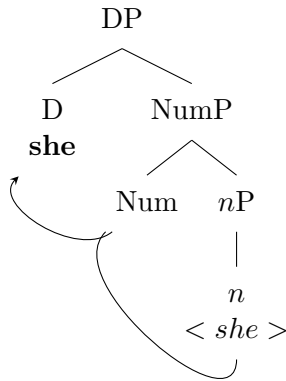


**Predicate:**

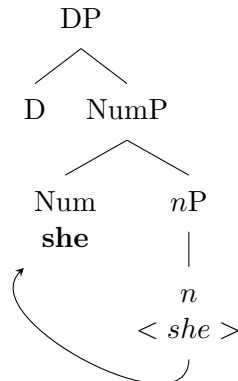


- Conrod (2019) (simplified):

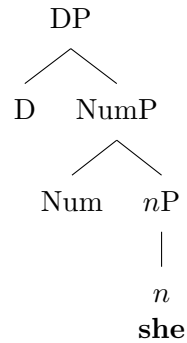
**Referential:**



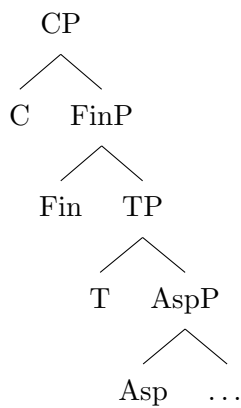
**Variable:**



**Predicative:**



- Possible parallel: more complex view of tense, distributed across inflectional domain.



But a further **disanalogy**: *tense* isn't distributed across this domain, *temporal interpretation* is.

And unlike pronouns, tense **never** occurs without a lexical predicate (even if elided)

So is pushing this analogy really worthwhile?

## 4 Spurious analogies?

**Another option:** tense **isn't** actually very much like a pronoun.

The analogies identified by Partee and Kratzer must then be attributable to other sources.

**Remainder of this section:** working backwards through the analogies.

## 6. Referential tense in Standard German

- No direct response to this analogy—past tense in Standard German does appear to be strictly referential.
- But potentially relevant that German is in the middle of a change—already complete in French—where the simple past is being replaced by (what used to be) the present perfect.
- Interesting to ask if strictly referential past tense is found in languages *without* that change—or without a perfect.

## 5. Uninterpreted features under semantic binding

**Kratzer:** tenses are like pronouns in that when they're bound, their features are potentially uninterpreted.

(12) Only I did my homework.

(13) They said they were doing their homework.

**Bjorkman (2019):** Whatever is going on in Sequence of Tense environments, it can't be a morphosyntactic feature dependency.

→ Non-local: across a finite clause boundary, and against potential intervenors.

→ Possible in the absence of any syntactic licenser, as in (17b):

(17) *Context: Kira was an odd child, with fixed opinions about her future. When she was six she decided that she would one day own a cat that looked like her. She's now changed her mind, but...*

- a. It is odd that Kira **wanted** to own a cat who **resembled** her.
- b. Kira's childhood desire to own a cat who **resembled** her remains odd.

- Some work dispensing with Feature Transmission for  $\varphi$ -features on bound pronouns: Sudo (2012), a.o.

**Further typology issue:** lots of languages have bound pronouns as in (12).

But only **some** have Sequence of Tense effects: a subset of Germanic and Romance languages.

## 4. Scope Interactions

- Recall the type of example Partee discusses as displaying a scope interaction for tense:

(10) If my friend had gotten a Game Boy Advance, they would have had everything they wanted.

- The two relevant interpretations are:
  1. At some contextually salient past time  $t$ , for everything  $x$  that my friend actually wanted at  $t$ , they would have had  $x$  in the counterfactual world where they got a Game Boy Advance.
  2. If my friend had gotten a Game Boy Advance, then at some time in that counterfactual world they would have had everything they wanted in that counterfactual timeline (maybe right then, maybe earlier, maybe eventually).
- The difference between these two readings, however, reduces to the interaction of **counterfactual past** with the **Sequence of Tense** interpretation for tense in the relative clause.
  - Reading 1: Past on *wanted* is counterfactual, interpreted in the scope of the modal, situates the situation in a world where the antecedent obtains.
  - Reading 2: Past on *wanted* is deictic, situates the situation in the past of the actual world.
- And as we already saw above in (17b), a counterfactual interpretation is available for past tense in relative clauses even without the possibility of semantic binding by another past-marked element.

## 3. Tense as a Bound Variable

- Recall the type of example that is supposed to illustrate a **bound** interpretation for tense, according to Partee:

(6) When my time is up, I will stop talking (immediately).

- The relevant interpretation has properties that cast doubt on this analysis, however:
- Partee proposes that the future modal *will* is interpreted relative to the time identified in the *when* clause.

But this type of example is better viewed as involving *matching* between the adjunct and the main clause, with the subsequence relation required because both clauses exhibit *perfective* aspect.

- We can see this with **progressive** in the main clause: now *will* is not calculated forward from the time established in the adjunct, but instead interpreted as **ongoing** with the *when*-clause, as in (18).

(18) When my time is up, I will (still) be speaking.



- The same with perfective predicates without a modal: the subsequence relation still obtains, despite the absence of a modal, as in (20):

(19) When my time was up, I gathered up my notes.

- Indeed, these are precisely the cases where we're **not** getting an indexical interpretation of the present tense—these are habitual, and the puzzle of the habitual is that the event described does not have to (indeed usually doesn't) hold NOW:

(20) My colleague smokes.

- Much the same can be said about the examples with *never/always*, which similarly *describe* potential events:

(8) My brother never answers when I call his phone.  
(cf. *no one... they*)

(9) My least favourite professor always gave assignments that were due the next day.  
(cf. *everyone... they*)

- In the other context that has most widely been analyzed as involving semantically bound tense—Sequence of Tense—the bound interpretation is particular to embedded *past* tense, and again only to imperfective or progressive predicates. Embedded perfective, by contrast, requires a **backshifted** interpretation.

(21) She said she gathered up her notes. (*gathering* occurs prior to *saying*)

## 2. Tense as Anaphoric

- Partee gives examples like (22) to argue that tense has anaphoric uses:

(5) a. Sheila had a party last Friday and Sam got drunk.  
b. When Susan walked in, Peter left.

- We've already seen that examples like (5b) don't actually involve simultaneity—the events are *ordered*, with the instead subsequence.
- Examples like (5a), in turn, arise due to an asymmetric interpretation for tense. We can see this because the “coreference” of times breaks down if we reverse the order of the two clauses.

(22) Sam got drunk last Friday and Sheila had a party.

- Bjorkman (2013): temporally or causally asymmetric interpretations are only available when coordinating TPs or smaller—they are not available to coordinated CPs.
- This suggests that what's going on does have something to do with the accessibility of tense—but crucially **not** that tense is a pronoun that can corefer with other local tenses.

## 1. Tense as Referential

- Finally, consider again the initial example of referential tense:

(23) I didn't turn off the stove.

- This does seem reasonable to show that tense is interpreted as being about a contextually salient time.
- But does this mean tense refers to a time in the same way a pronoun refers to an individual? Consider the range of examples in (24) ((24a) repeated from (1)):

(24) a. He shouldn't be in here.  
b. The dog shouldn't be in here.  
c. The last person to arrive shouldn't be in here.

- The subjects in (24) may all pick out a contextually-defined individual, but they may do so in different ways. Similarly, the reference to contextually salient times in (23) could be accomplished in several different ways.

## 5 Where does this leave us?

- Tenses aren't **syntactically** or **structurally** like pronouns.

Not obvious that they're much **semantically** like pronouns either.

- But what a semanticist means by a "pronoun" is frequently just a **variable**.

Does tense involve temporal variables?

→ **semantically? probably**

→ **syntactically? not obviously**

- So what's going on with tense?
    - Standard view of tense semantics involves **three times**: (Reichenbach, 1947; Klein, 1992, 1994)
      - \* Event Time
      - \* Topic Time
      - \* Anchoring Time (aka Utterance Time)
- ...but none of these are *necessarily* projected in the syntax.

**Event Time:** corresponds to the runtime of the *vP* event, itself often introduced quantificationally.

**Anchoring Time:** in matrix clauses corresponds to NOW, potentially introduced contextually.

**Topic Time:** if tenses are pronouns, then the pronouns refer to the Topic Time.

But Topic Time can also be introduced **quantificationally**, if tense simply takes a predicate of times (composed by viewpoint aspect) and yields *another* predicate of times.

**To conclude:**

- If by “are tenses like pronouns?” we mean “are tenses obviously subject to the range of binding phenomena typical of pronouns?” the answer seems to be “no.”
- But if by “are tenses like pronouns?” we mean “are there times in our semantic ontology?” then yes, it is reasonable to say that tenses are like pronouns—but not clear that even for pronouns we would have individual variables *in the syntax*.
- And if by “are tenses like pronouns?” we mean “does tense have the same syntactic representation as pronouns do?” the answer is *definitely* no.

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