

Revisiting pronominal vs. existential past tense denotations in English and Japanese

Yurika Aonuki (University of British Columbia)

The English past tense has been analyzed as both pronominal (1) (Partee 1973, 1984; Kratzer 1998) and existential (Ogihara 1989; Kusumoto 1999; von Stechow 2009). Under an existential account with contextual restriction (2), a past tense takes a set of contextually salient times C, the evaluation time (EvalT) t, and a predicate of times P, and asserts that there is a reference time (RT) interval t' such that t' is in the set C and precedes t, and P holds at t' (von Stechow 2009). The Japanese past has been largely assumed to be existential (Kusumoto 1999; Sharvit 2014).
(1) $\llbracket \text{past}_i \rrbracket^{g,c} = g(i) : g(i) < t_c \& g(i)$ is salient. (2) $\llbracket \text{Past} \rrbracket^{g,c} = \lambda C_{\langle i, t \rangle}. \lambda t. \lambda P_{\langle i, t \rangle}. \exists t' [C(t') \& t' < t \& P(t')]$
This paper argues that both English and Japanese past tenses are pronominal. This is done by both revisiting the existing empirical evidence for and against the two approaches and providing new data demonstrating that the contextual saliency of the RT should be a presupposition, as predicted by the pronominal approach but not the existential account.

Partee (1973; 1984) proposed a pronominal account of tense based on the behaviours of tenses analogous to pronouns; namely, the English past can be deictic (3), anaphoric (4), and bound (5). Parallel examples can be constructed with the Japanese past tense.

(3) I **didn't** turn off the stove. (4) Sheila had a party last Friday and Sam **got** drunk.

(5) When you ate Chinese food as a child, you **were** always hungry an hour later.

Deictic uses (3) pose a problem for an existential account of the past tense without contextual restriction, which wrongly predicts a scope interaction between the past and negation (6a, b) (Partee 1973). This scope ambiguity is exactly what is observed in the Javanese existential past *tau*, which also lacks deictic, anaphoric, and bound uses (Chen et al. 2020).

(6) a. exis. past > neg. $\exists t [t < s^* \& \neg \text{I-turn-off-stove at } t]$ 'There is a time I didn't turn off the stove.'
b. neg. > exis. past $\neg \exists t [t < s^* \& \text{I-turn-off-stove at } t]$ 'I never turned off the stove.'

On the other hand, the pronominal approach derives a correct denotation of (3), as in (7).

(7) $\neg [\text{I-turn-off-the-stove at } g(i)] : g(i) < s^* \& g(i)$ is salient in the context.

Proponents of the existential account argue that adding contextual restriction C to the existential account (2) derives the correct denotation of deictic uses (8) (Ogihara 1989; von Stechow 2009).

(8) $\neg \exists t [C(t) \& t < s^* \& \text{I-turn-off-stove at } t]$ 'There is no salient time when I turned off the stove.'

However, there are two issues with the existential account. First, it is not clear how it would account for the anaphoric (4) and bound (5) uses in the absence of a pronominal component. Second, there is one crucial difference between the pronominal account (7) and the contextually restricted existential account (8): the contextual saliency of the RT can be presupposed in the former but is asserted in the latter. Novel data show that it is presupposed in both languages. In (9), as evident in B's utterance, B has no salient interval in mind related to the movie Casablanca. The use of the past here is at best odd in both English and Japanese, and it sounds as if B knows when they could have watched the movie; perfect is preferred in this case.

(9) A: My favourite movie is Casablanca. B: # I **didn't** see that movie. When was that made?

B: # Sono eiga mi-naka-tta. Itsu-no eiga?
that movie see-neg-pst when-gen movie

'I didn't see that movie. When was that movie (made)?'

The denotation of (9B) under the existential account (10), which asserts that there isn't a salient past interval in which the speaker watched the movie, wrongly predicts that it should be perfectly felicitous in the above context. The saliency of the RT, C(t), is negated in (10) and can't be presupposed because t is bound by an existential operator.

(10) $\neg \exists t [C(t) \& t < s^* \& \text{I watch Casa. at } t]$ 'There is no salient past time when I watched Casa.'

Instead, I propose that a past tense consists of a pronoun referring to the RT (11a) and a non-existential operator (11b), which encodes presuppositions that the RT t is salient and precedes the EvalT t' and asserts that P is true at t. The operator enables encoding presuppositions in a relative past tense. In this approach, the denotation of (9B) correctly predicts that the contextual saliency, C(t), is presupposed and therefore projects under negation (12).

(11) a. $\llbracket t_i \rrbracket^{g,c} = g(i)$ b. $\llbracket \text{Past} \rrbracket^{g,c} = \lambda C_{\langle i, t \rangle}. \lambda t: C(t). \lambda P_{\langle i, t \rangle}. \lambda t': t' < t \& P(t)$

(12) $\neg [\text{I-watch-Casa. at } g(i)] : C(t) \& g(i) < s^*$

References

- Chen, Sihwei, Jozina Vander Klok, Lisa Matthewson, and Hotze Rullmann. 2020. The ‘experiential’ as an existential past: Evidence from Javanese and Atayal. *Natural Language and Linguistic Theory*.
- Kratzer, Angelika 1998. More structural analogies between pronouns and tenses. In *Semantics and Linguistic Theory (SALT) VIII*, 92–110.
- Kusumoto, Kiyomi. 1999. Tense in embedded contexts. PhD dissertation, University of Massachusetts at Amherst.
- Ogihara, Toshiyuki. 1989. Temporal reference in English and Japanese. PhD dissertation, The University of Texas at Austin.
- Partee, Barbara H. 1973. Some structural analogies between tenses and pronouns in English. *Journal of Philosophy* 70: 601–609.
- Partee, Barbara H. 1984. Nominal and temporal anaphora. *Linguistics and Philosophy* 7: 243–286.
- Sharvit, Yael. 2014. On the universal principles of tense embedding: The lesson from *before*. *Journal of Semantics* 31: 263–313.
- von Stechow, Arnim. 2009. Tenses in compositional semantics. In Wolfgang Klein and Ping Li (eds.), *The Expression of time*, 129–166. Berlin: Mouton de Gruyter.