In this paper, I use data on past interpretations of attitude complements in optional tense languages to argue for a syntactic sequence of tense (SOT) rule, and against a pragmatic explanation for apparent SOT effects. In at least some optional tense languages, such as Washo (Bochnak, 2016) and Tlingit (Cable, To appear), an embedded past under a matrix past may receive a so-called “simultaneous” reading, as in (1) for Washo. The interpretation of embedded tense in Washo provides a novel argument for an SOT rule that optionally deletes an embedded semantic tense which is c-commanded by an identical matrix tense (e.g., Ogihara 1989; LF in (2)). The effect of applying the rule is that the reference time (RT) of the embedded clause is bound by the attitude verb, resulting in a simultaneous reading. I argue that such an account can better handle the data than a pragmatic account of simultaneous readings (Altshuler, 2016; Altshuler & Schwarzschild, 2012).

(1) a. Context: When you were a child, you thought that Reno was a really big city. But since then, you’ve visited Sacramento and San Francisco, which are both much bigger, so you now know that Reno isn’t that big after all.

b. di-mešwu-a? línu t’ı:yeli? k’-e?-ušil-a? di-hamu-ušil-i
1-boy-DEP Reno big 3-be-PAST-DEP 1-think-PAST-IND
‘When I was a boy, I thought Reno was big.’
= ‘When I was a boy, I had the thought: “Reno is big.”’ (simultaneous)

(2) [ PAST I think [ that PAST Reno be big ] ] (SOT schematic)

(Un)available readings. In Washo, finite clauses with past temporal reference may be marked with a past tense (-ušil), or be tenseless/unmarked (Bochnak, 2016). Unmarked clauses in most contexts can have either past or present temporal reference. Given that past marking is optional, there are four possible configurations for past interpretations of attitude verbs and their complements. Overt past marking may appear on the attitude verb, the embedded verb, both, or neither, as shown in (3). Both simultaneous and back-shifted readings are available for all configurations, except when a past tense is embedded under a tenseless clause. In this case, speakers only accept a back-shifted reading; see summary in (4), where “bare” = tenseless clause.

(3) a. Context A: You see a man in the street and say ‘Hi Tim!’ He tells you his name isn’t Tim. You apologize, and say . . .

Context B: You run into your old friend. His name used to be Tim, but you heard that he changed his name since you last saw him.

b. Tim de-gum-di?ye? M-e?(-ušil)-a? di-hamu(-ušil)-i
Tim NMLZ-REFL-name 2-be(-PAST)-DEP 1-think(-PAST)-IND
‘I thought your name was Tim.’
Context A: ‘I had the thought: “Your name is Tim.”’ (simultaneous)
Context B: ‘I had the thought: “Your name used to be Tim.”’ (back-shifted)

(4) |                | past-under-past | bare-under-past | bare-under-bare | past-under-bare |
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Past under past. I assume a standard modal semantics of attitude verbs as in (5). The past tense in (6) combines first with a predicate of times, then a temporal pronoun denoting RT. In matrix contexts, the evaluation time (ET) \( j \) is equated with the speech time (ST). I use the notation PAST\(_{i,j} \) as a shorthand to indicate a past tense with its RT \( i \) and ET \( j \) indices.
Past under tenseless clauses. I assume that morphologically tenseless clauses in both embedded and matrix contexts contain no semantic tense (Tonhauser, 2011; Bochnak, 2016). In the absence of tense, the embedded clause directly denotes a predicate of times, as in (8). The RT variable is existentially bound by the attitude verb, deriving a simultaneous reading. To obtain the back-shifted reading, the RT variable needs to be existentially bound, and an ET variable is needed to prevent the embedded RT from denoting a time in the future of the attitude holder’s now. An Upper Limit Constraint or similar (Abusch, 1997) is needed to prevent the embedded RT from denoting a time in the future of the attitude holder’s now.

Past under tenseless clauses. The only LF available for such a configuration is one like in (9), except that there is no matrix tense. Because the SOT rule only applies if there is a c-commanding tense of the same type, the embedded PAST\textsubscript{ij} cannot be deleted. This results in a semantics for the embedded clause like (10), i.e., a back-shifted reading.

Pragmatic competition? Recent work by Altshuler (2016); Altshuler & Schwarzschild (2012) argues that apparent SOT effects can be captured pragmatically, without recourse to a deletion rule. The idea is that past-marked states carry a cessation implicature in many contexts based on competition with a present tense form. In embedded contexts in English, the present tense retains its deictic flavor, and so isn’t an appropriate competitor for a past-marked clause. Thus, a cessation implicature is not calculated, and the absence of the implicature yields the apparent simultaneous reading. In languages like Japanese and Hebrew, the present tense is relative, and can be used in embedded contexts to deliver a simultaneous interpretation, so an embedded past always gets a back-shifted reading in these languages. This line of reasoning is not available for optional tense languages. The optional past tense does not compete with a present tense, but with a tenseless variant. That a simultaneous reading is available for a past under past is surprising, since the semantics in (8) is equivalent to the one delivered automatically by having a tenseless embedded clause. That is, there is no pragmatic reason why a past under past should have a simultaneous reading. Furthermore, there is cross-linguistic variation in whether optional tense languages derive a simultaneous reading for past under past. While Washo and Tlingit allow it, Mucha (2016) shows that embedded optional pasts in Medumba only have a back-shifted reading. These facts can easily be explained by invoking the SOT rule, which is active in Washo and Tlingit, but not in Medumba.
References


