

Tense Harmony without Tense Morphology: Evidence from Vietnamese Clefts

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Background: English Clefts obey Tense Harmony (TH): Tense of the copula must harmonize with the tense of the Connected Clause (CC). Initially analyzed as syntactic agreement [1], [3] showed that the constraint is semantic: a present matrix is compatible with any embedded tense, but a past matrix only allows past embedded tense (1). Crucially, TH applies to CCs but not to string-identical clefted Relative Clauses (RCs), making it a diagnostic for the parser's structural commitment: violations are ungrammatical as CCs but fully grammatical as RCs (2).

[2] showed that sentences with future-under past receive lower ratings and longer reading times at the disambiguating auxiliary, despite being grammatical as RCs. These results show that (i) TH is computed incrementally as a semantic constraint, and (ii) clefted RCs are strongly dispreferred by the parser.

Current study: We extend this paradigm to Vietnamese, which provides a strong test case: the copula *là* carries no tense morphology, so TH cannot reduce to feature-matching agreement. Matrix temporal reference is set by adverbials (*hôm qua* 'yesterday', *hôm nay* 'today'), while the embedded clause optionally hosts the anteriority marker *đã* or the future marker *sẽ*. Vietnamese also licenses ambiguous CC/clefted RCs, allowing us to test whether RC dispreference generalizes beyond English. We tested the offline parsing preferences for CC vs. RC among Vietnamese speakers (N=55) using a 2x2 design crossing MATRIX TENSE (Past/Present) and EMBEDDED TENSE (Past/Future) (Table 1). Participants were asked to make a binary acceptability judgment. **Results:** A significant interaction of MATRIX TENSE* EMBEDDED TENSE emerged ($\beta=1.11$, $p<.001$), driven by lower ratings of future-under-past compared to past-under-past sentences ($\beta=2.52$, $p<.001$) (Fig. 1). RT analyses showed a numerical trend in the same direction (Fig. 2). **Discussion:** The Vietnamese pattern mirrors English: future-under-past, the only TH-violating condition, was rated lowest despite licensing a grammatical RC parse. With no tense on the Vietnamese copula, TH cannot reduce to feature-matching; following [2], we analyze it as a semantic constraint on temporal interval compatibility, the embedded Event Time must fall within the Assertion Time introduced by the matrix clause, whether that interval is set by morphological tense (English) or by a temporal adverbial (Vietnamese). The dispreference for clefted RCs thus generalizes across typologically distant languages and is robust even where an alternative grammatical parse is available, participants reject these sentences in line with the CC parse rather than rescue them via the RC. **Follow up:** In an ongoing self-paced reading study we exploit an asymmetry English lacks: the Vietnamese relativizer *mà* unambiguously forces an RC parse. We cross Tense (mis)match with ambiguity, comparing reduced clauses (CC/RC ambiguous, as in the present study) with *mà*-marked clauses, which only allow the RC parse. Following the logic of [4], we predict tense-mismatch costs only in the ambiguous condition, providing evidence that these are genuine TH violation and not simple Tense Mismatch effects, as well as new online evidence on the time-course of TH in Vietnamese.

References

- [1] Akmajian. *Aspects of the grammar of focus in English*. PhD thesis, MIT, 1970.
- [2] Guo, Mattys, Santi, Sloggett, Turco, and Grillo. Incremental processing of tense harmony. *LCN*, to appear.
- [3] Higgins. *The Pseudo-Cleft Construction in English*. PhD thesis, MIT, 1973.
- [4] Pozniak, Hemforth, Haendler, Santi, and Grillo. Seeing events vs. entities. *JML*, 107, 2019.

Examples, Figures and Tables

- (1) a. It was [the lawyer] [CC that was chaired the meeting]. ✓ Past / Past
 b. *It was [the lawyer] [CC that will chair the meeting]. *Past / Future
 c. It is [the lawyer] [CC that is chairing the meeting]. ✓ Present / Present
 d. It is [the lawyer] [CC that will chair the meeting]. ✓ Present / Future
- (2) Q: Who called?
 A: It was_{PAST} [the lawyer [RC that will chair the meeting]] (that called_{PAST}).

Matrix T	Embedded T	Stimuli	Syntax
Past	Past	Hôm qua chính là người luật sư đã chủ trì cuộc họp. Yesterday exactly be class. lawyer ANT chair meeting 'Yesterday it was the lawyer that chaired the meeting.'	CC/RC
Past	Future	Hôm qua chính là người luật sư sẽ chủ trì cuộc họp. Yesterday exactly be class. lawyer FUT chair meeting 'Yesterday it was the lawyer that will chair the meeting.'	RC only
Present	Past	Hôm nay chính là người luật sư đã chủ trì cuộc họp. Today exactly be class. lawyer ANT chair meeting 'Today it is the lawyer that chaired the meeting.'	CC/RC
Present	Future	Hôm nay chính là người luật sư sẽ chủ trì cuộc họp. Today exactly be class. lawyer FUT chair meeting 'Today it is the lawyer that will chair the meeting.'	CC/RC

Table 1: Experimental design and example stimuli

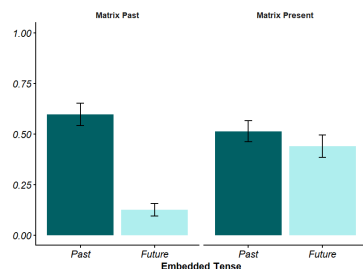


Figure 1: Acceptability Judgments

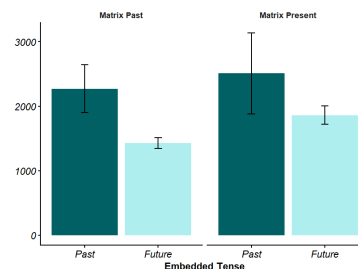


Figure 2: Acceptability Judgment Response Times

Vietnamese Syntax

Cleft Structure. The type of Vietnamese it-clefts used in this study are introduced by the focus particle *chính* and the copula *là*, followed by the focused DP and the embedded clause (3), which does not contain an overt complementizer. The focused DP is composed of a classifier (e.g., *người* ‘person/CL’) and a noun.

- (3) Chính là người giúp việc đã quét dọn khu vườn.
exactly be class maid ANT clean garden
‘It was the maid that cleaned up the garden.’

Tense. The copula *là* does not inflect for tense. Matrix temporal reference can be set by the context or by sentence-initial adverbials. Within the embedded clause, two preverbal markers locate the event in time: the anteriority marker *đã*, and the future marker *sẽ*. The distribution of these markers within clefts replicates the English TH pattern: a Past matrix licenses only *đã* in the embedded clause, while a Present matrix licenses both *đã* and *sẽ* (see Table 1)

Reduced vs. *mà*-headed clauses. Relative Clauses in Vietnamese come in two varieties. Reduced clauses, lacking an overt relativizer (cf. Table 1), are string-identical to CCs but also compatible with a RC parse, this is the ambiguity exploited in the present study. Full relatives, introduced by the relativizer *mà* (4), unambiguously force an RC parse and are not subject to TH. The ongoing follow-up exploits this contrast to isolate the cost of TH violation from the cost of simple Tense Mismatch.

- (4) Chính là người giúp việc mà đã quét dọn khu vườn.
exactly be class maid (that_{REL}) ANT clean garden
‘It was the maid who cleaned up the garden.’