

## Can tenses be pure indexicals in complement clauses?

Since Reichenbach (1947) and Bar-Hillel (1954), tenses have been recognized as indexical elements. In matrix clauses, they are always interpreted with respect to the speaker's temporal position.

In some embedded contexts (e.g. in indicative complement clauses) it seems that tenses cannot be interpreted simply with respect to the speaker's temporal location, as if they were in isolation. In (1) the leaving event cannot lie in the past only with respect to the speaker's temporal position (e.g. it cannot lie between the utterance time and the saying event). As a general rule, the embedded tense must be interpreted with respect to the matrix tense. Several scholars (Zagona 1988, Giorgi & Pianesi 1997 among others) pointed out that the temporal relations are represented in the syntax. It is customarily assumed that tenses are relational elements represented somewhere in the T-layer. In order to handle the interpretation of sentences like (1), the temporal features of the matrix event are represented in the syntactic structure of the embedded clause (Enç 1987, Higginbotham 1995, 2002, 2004, Giorgi 2008, 2010).

The question that we want to address in this paper is: is this a general property of UG (as suggested by Giorgi 2010)? Or, alternatively, purely indexical tenses in indicative complement clauses do exist?

In some languages (e.g. Italian) there are cases in which the interpretation of the embedded tense shows an indexical component (see (2)). (2) is a case of *Double Access Reading* (DAR). In sentence (2), the embedded predicate is temporally evaluated twice. The pregnancy of Frida obligatorily overlaps both with the time of the utterance and with the time of Ezra saying it. The anchoring of the embedded tense to the superordinate tense is mandatory, as showed by the ungrammaticality of (3). The crucial point in (3) is that the embedded tense cannot be independently evaluated, as if it were in isolation. Since we know that human pregnancy lasts much less than two years, it is not possible for Frida to be pregnant both at the time Ezra spoke and at the time of the utterance.

Giorgi & Pianesi (2001) and Giorgi (2006,2007,2008,2010) argued that the temporal anchoring of the embedded tense to the matrix tense occurs in the T-layer, whereas the temporal anchoring to the speaker's temporal coordinate occurs in the C-layer. In this perspective, the embedded tense is evaluated twice, through T-to-C movement. They also propose that all the verbal forms appearing in indicative complement clauses must be obligatorily evaluated twice (*Generalized DAR theory*).

The Italian sentence (4) seems to challenge this view. The interpretation of (4) does not enforce the DAR interpretation. On the contrary (4) is compatible with a situation in which Frida is at home at the time of the utterance, but not at the time of Ezra saying it (see (6)). The crucial requirement for the interpretation of (4) is the anchoring of the embedded tense to the time of the utterance, while the anchoring to the time of saying seems to be optional. Note that (4) contrasts with (2), in that (2) obligatorily requires the DAR interpretation.

The embedded present tense in (4) seems to behave as a purely indexical element, even though it appears in an indicative complement clause. The analysis of (2) and (4) suggests that in Italian we can find at least two different interpretation when the present tense is embedded in indicative complement clauses: i) double evaluated PRES (DAR interpretation) ii) purely indexical PRES (no DAR interpretation). The interpretation of (4) seems, therefore, to be incompatible with the *Generalized DAR theory*.

Lastly, note that (4) is compatible with a future-oriented interpretation, both in respect to the saying event and to the time of the utterance (cfr. (6)).

The aim of this paper is to investigate the indexical interpretation of tenses in embedded contexts from a syntax-semantics interface point of view. In particular, it will try to find out whether (2) and (4) have two different syntactic structures or rather the same syntactic structure compatible with different post-syntactic semantic interpretations.

#### EXAMPLES:

- (1) Ezra ha detto che Frida è partita.  
Ezra said that Frida left.
- (2) Ezra ha detto che Frida è incinta.  
Ezra said that Frida is pregnant.
- (3) \*Due anni fa Ezra ha detto che Frida è incinta  
\*Two years ago Ezra said that Frida is pregnant
- (4) Ezra ha detto che Frida è a casa.  
Ezra said that Frida be (PRES) at home.
- (5) a. Dov'è Frida?  
Where's Frida?  
b. Ieri Ezra ha detto che Frida è a casa (*adesso*).  
Yesterday Ezra said that Frida be (PRES) at home (*now*).
- (6) Ieri Ezra ha detto che Frida è casa domani.  
Yesterday Ezra said that Frida be (PRES) at home tomorrow.

#### REFERENCES

- Bar-Hillel Y. (1954), 'Indexical Expressions', *Mind*, 63: 359-79.
- Enç M. (1987), 'Anchoring Conditions for Tense', *Linguistic Inquiry*, 18, 633-657.
- Giorgi A. (2006), 'From Temporal Anchoring to Long Distance Anaphors', *Natural Language and Linguistic Theory*, 24, 4, 1009-1047.
- Giorgi A. (2008), 'Reflections on the Optimal Solution: On the Syntactic Representation of Indexicality', Paper presented at the Conference Biolinguistics: Language Evolution and Variation, Venice, June 2007 *ms*, University of Venice.
- Giorgi A. (2010), 'About the Speaker: Towards a Syntax of Indexicality', Oxford University Press.
- Giorgi A., Pianesi F. (1997), 'Tense and Aspect: from Semantics to Morphosyntax', Oxford University Press, New York.
- Giorgi A., Pianesi F. (2001), 'Tense, Attitude and Subjects', in R. Hastings, B. Jackson, Z. Zvolenszky (eds.), *Proceeding of SALT XI*, CLC Pub., Cornell Univ. USA, 212-230.
- Higginbotham J. (1995), 'Tensed Thoughts', *Mind and Language*, 10, 3, 226-249.
- Higginbotham J. (2002), 'Why is Sequence of Tense Obligatory?' in G. Preyer and G. Peter (eds.), *Logical Form and Language*. Clarendon Press, Oxford, 207-227.
- Higginbotham J. (2004), 'An Anaphoric Theory of Tense' in M. Gibson and J. Howell (eds.), *Proceedings of SALT XVI*, Ithaca, NY, Cornell University, 59-76.
- Reichenbach H. (1947), 'Elements of Symbolic Logic', MacMillan, New York.
- Zagona K. (1988), 'Verb Phrase Syntax: a parametric study of English and Spanish', Springer.