

Double Access Reading in future-oriented predicates

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It's a well known fact that tenses in embedded complement clauses are not interpreted only with respect to the utterance time (e.g. as indexicals). Rather, they are constrained by a local evaluation time (e.g. the matrix tense) (Enç 1987, Higginbotham 1995). However, in many languages (e.g. Italian), the interpretation of the embedded tense shows at least some indexical component in certain constructions. In particular, when a stative predicate in the present tense is embedded under an attitude verb in the past tense, the embedded tense receive a particular interpretation known as *Double Access Reading* (DAR):

- (1) Ezra ha detto che Frida è incinta.
Ezra said that Frida is pregnant

The rough intuition in (1) is that Frida's pregnancy must overlap both with the matrix tense (e.g. the time of Ezra's saying) and the utterance time. Crucially, DAR is not optional:

- (2) #Due anni fa Ezra ha detto che Frida è incinta.
Two year ago Ezra said that Frida is pregnant

Giorgi & Pianesi (2001) and Giorgi (2006, 2007, 2008, 2010) proposed that the DAR is originated in the syntax by means of some movement/matching mechanism between T and C. The core hypothesis of this proposal is that both the C-layer and the T-layer are endowed with temporal features (τ -features). Thus they claim that the embedded T projection has a τ -feature that requires movement/matching from T to C and subsequently to the matrix T in order to be checked. Since the C-layer has been recognized to display syntactic representations of some relevant information from the context (Rizzi 1997), they argue that a representation of temporal indexicality (e.g. the speaker's temporal coordinate – namely the utterance time) exists somewhere in C. Therefore, the temporal anchoring of the embedded tense to the utterance time occurs in the C-layer, whereas the temporal anchoring to the matrix tense occurs in the T-layer. In other words, embedded tenses are syntactically evaluated twice, through T-to-C movement. The result is a structure like (3):

- (3) [[T (e₀, e_{1i})...[CP (e_{1(uT)}) [C(e₁,e₂) [TP *overlap* [T e_{1i} [T(e₁,e₂) [vP(e₂)]]]]]]]]]

Where *overlap* is the temporal relation associated with the present tense, e₁ and e₂ are the events that the temporal morpheme is relating temporally and *uT* means 'utterance time'. Note that e₁ in matrix-T is co-indexed with e₁ in embedded-T. This is the resulting indexization of the movement/matching operation between the matrix tense and the embedded one. This syntactic mechanism is called *double evaluation*. In Italian, such a movement takes place when the verb is in the indicative mood, giving the DAR interpretation. They argue also that all the verbal forms appearing in indicative complement clauses must be obligatorily evaluated twice (*Generalized DAR theory*). Therefore, according to this proposal, the DAR is not due to the interactions of different semantic conditions (Abusch 1997, Ogihara 1996). Rather, DAR is due to general principles of the syntactic computation.

However, there are cases where the embedded tense seems to behave as a pure indexical

(e.g. as if it were in a matrix clause):

(4) Ieri Ezra ha detto che Frida è a casa oggi.

Yesterday Ezra said that Frida is at home today.

As showed by the temporal adverbs, the embedded present tense in (4) is not required to overlap both with the matrix and the utterance time. The embedded eventuality must only overlap with the utterance time. *Prima facie*, (4) represent a challenge for the *Generalized DAR theory*. Moreover, they represent a challenge to the more general claim that tenses in embedded contexts cannot behave as purely indexical elements.

In many languages, the present tense can be used to refer to future eventualities (Dowty 1979, Copley 2009, Bonomi 2010). As Copley (2009) pointed out, the present tense is associated with a particular kind of future-oriented interpretation called *futurate*, which is available only with planned, scheduled or otherwise determined eventualities:

(5) Il Napoli gioca con il Milan settimana prossima.

Napoli plays against Milan next week

(6) #Il Napoli batte Milan la settimana prossima.

Napoli defeats Milan next week.

In a nutshell, futurates are understood as modal predicates expressing the existence of a plan concerning some event that will happen at some time after the evaluation time. Simplifying somewhat, the plan is understood as a function like the following (slightly modified from Copley (2009)):

(7) PLAN(d)(q)(w)(t) is defined iff d directs q in w at t.

If defined, $\text{PLAN}(d)(q)(w)(t) = 1$ iff $[\forall w'$ metaphysically accessible from w at t and consistent with d's commitments in w at t: $\exists t'[t' > t: [q(w')(t')]]$].

Where an *d* is an existentially quantified, presupposed-capable entity called '*director*', which is committed to and has the ability to ensure the realization of the proposition *q*.

We propose that apparently non-DAR constructions like (4) can be treated as embedded futurates, showing that they cannot be considered as unquestionable counterexamples to the *Generalized DAR*. We will argue that these constructions display an extra layer between the embedded T and the *vP*, where a modal head representing a plan is located. We propose also that the evaluation time of the modal predicate is shifted by means of some syntactic mechanism. Therefore the evaluation time of the plan, but crucially not the time of the event in the *vP*, undergoes Double Evaluation. Our analysis brings evidences in favour of the reality of plans in the syntactic structure, raising questions about what particular kind of entities they are (cf. Copley (2011)).

The aim of this paper is to clarify the nature of the interaction between syntax and semantics in futurate constructions. In particular, we will take into account some related phenomena in past-under-past and sequence-of-tense constructions involving the imperfect (the so-called *modal imperfect* (cf. Ippolito (2004), Giorgi & Pianesi (2004))). In doing this, we will pay particular attention to the comparison between futurates and other possible future-oriented kinds of modality (e.g. epistemic, evidential, doxastic modality).

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