FUTURE AND INFORMATION

Alda Mari

Institut Jean Nicod, CNRS/ENS/EHESS

Across languages, future sentences have temporal and modal uses and it is now consensual that they feature a combination of temporal and modal information. Most of the accounts propose that future expressions (FUT) are primarily modals, even in the temporal interpretation, and strive to derive the temporal interpretation in a principled way. The research regarding which type of modality FUT conveys goes back to the Aristotelian idea that future sentences convey some kind of indeterminacy. It is very hotly debated in the formal literature whether this indeterminacy is metaphysical or epistemic. It has thus been argued that the future is deterministic and that the indeterminacy is epistemic in both the epistemic and the temporal interpretation of future sentences (e.g. Kissine, 2008). It has also been argued that the indeterminacy is metaphysical in the temporal reading (on this view, the future is not deterministic, e.g. Prior, 1957; Thomason, 1984; Copley, 2002; Giannakidou and Mari, 2013) and that the indeterminacy is epistemic in the epistemic reading (e.g. Condoravdi, 2002).

Here we take a different route, and make no model theoretic assumptions about what the future is like (multi-branching, deterministic one-branch). We only acknowledge that, no matter how the future is (open, or determined), one cannot know the future. The route that we take here places information at the core of the account, and explores the role that acquisition of information plays in the interpretation of future sentences.

Specifically for the French future, our claim here is that it is an evidential, and we explain how its uses (including the epistemic and the temporal among many others) are derived from a core evidential meaning.

To show that the French future is such an expression, our discussion proceeds by comparing FUT in French to the epistemic modal *devoir* (*must*). Recent literature has shown that the boundaries between epistemic modality and evidentiality are not as clear-cut as previously thought (Faller, 2002, Matthewson et al. 2007, Murray, 2010). Specifically, for English, it has been proposed that *must*, in its epistemic interpretation, presupposes indirect evidence (in the sense of Willett, 1998, see von Fintel and Gillies, 2010). Alternately it has been claimed that modals and evidentials both have a core modal meaning (Matthewson, et al. 2007). For French, it had been proposed that epistemic modals are in fact evidentials (Dendale, 2001) and specifically that they are inferential evidentials (cf. infra).

In this paper we argue that FUT does not behave like *devoir* but is also an evidential. However, the evidential nature of the future is not revealed by consideration of the evidence available at the time of the utterance (in agreement with previous views, notably Dendale 2001). What makes the future an evidential is the direct evidence that the future presupposes to be available at a future time.

Following de Saussures and Morency (2011) we endorse the claim that the future asserts future verification. We combine this view with the evidential constraint inspired by Lee (2012), that ratificational modals use direct evidence, and provide a precise content to this constraint, namely that the time of evaluation of the modal and of the prejacent proposition coincide. From this evidential constraint we derive in a principled way the temporal interpretation without treating FUT as a tense and cover previously unexplained interpretations. Using this constraint, together with different scoping relations between PAST and FUT (for perfect future sentences), we are able to explain why in some cases a future verification is not needed (unexpectedly on de Saussures and Morency (*ibid*.) account), and why the future can be used when the speaker has direct evidence at the time of the utterance (as in *Nadal aura encore gagné*, uttered while witnessing Nadal's victory). We also explain cross-linguistic differences between the ratificational French future and the conjectural/subjective Italian future.