

THE MEANING OF THE FRENCH ADDITIVE *AUSSI*: PRESUPPOSITION AND DISCOURSE SIMILARITY

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This work deals with the semantics of the French additive *aussi*. We make the broad hypothesis that its semantics closely match those of its English equivalent *too*. Thus, we rely on the usual formal analysis given to *too*, but will use experimental data on *aussi*. A complete analysis would test both items to check for differences, although as far as our knowledge is concerned, the differences are slim.

Traditional analyses of *too* (e.g. (Krifka,1999)) describe it as a focus-sensitive and presupposition-triggering operator. For example, in (1), *too* associates with *Mary* and conveys the presupposition that someone different from *Mary* came (in that case: *John*).

(1) JOHN left and MARY did #(too).

The presupposition of *too* is anaphoric (cf. (van der Sandt and Geurts, 2001)): its antecedent must be salient in the discourse and cannot be accommodated. This explains why (2) is infelicitous, even though it is clear that *Lemmy* was not alone at dinner in New York.

(2) # Lemmy had dinner in New York too.

Apart from its presupposition, *too* is said to be semantically void, i.e. it does not contribute anything to the asserted part of its host utterance. Thus, in (1), the asserted part of the second conjunct is “*Mary came*”. Furthermore, as indicated in (1), *too* appears to be obligatory when its felicity conditions are met. This led a number of authors (see (Amsili and Beyssade,2009) and references therein) to treat this phenomena as a case of *obligatory presupposition*.

We argue that the presence of a semantically compatible antecedent for the presupposition is not a sufficient condition for using *too*: its acceptability depends upon the segments being similar in the discourse (§1), a proposal we couch in an *argumentative* approach (§2). This proposal is then articulated with accounts of the obligatoriness of *too* (§3).

§1: Some examples seem to contradict the description of *too* given above. For example, (3) is felicitous, but (4) is not, even though both have an antecedent compatible with *too*'s presupposition (or its negative counterpart *either*).

(3) Lemmy solved only some of the problems and Ritchie didn't solve all of them either.

(4) # Lemmy solved only some of the problems and Ritchie solved some of them too.

In (3), the antecedent is the asserted part due to *only*¹, i.e. “*Lemmy did not solve more than some of the problems*” (which entails that he did not answer all of them), whereas in (4), the antecedent is the presupposed part of *only*: “*Lemmy solved some of the problems*”. (5) shows that a presupposed proposition can serve as an antecedent for *too*'s own presupposition (as for most anaphoric items), and therefore that the presupposed nature of the antecedent cannot be the reason for the infelicity of (4).

(5) Lemmy's proud to be a bass player. Roberto plays bass too.

Given that (4) becomes better without *too* (at least as an answer to the question “*How many problems did Lemmy and Ritchie solve each?*”), we conclude that its presence is responsible for the infelicity of (4), a fact unaccounted for in the traditional analyses of its meaning.

Another set of problematic data is given in (6). There, each conjunct includes a modal along the scale ⟨*certain, highly likely, likely, possible*⟩. An element on the scale logically entails all elements below it, and is understood as being more probable than them.

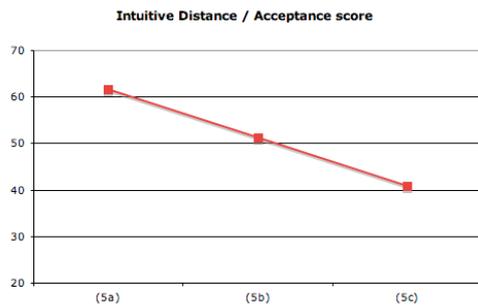
(6) A: Bordeaux and Marseille will each play a football match abroad. What are the odds?

a. B: The victory of Bordeaux is certain, and that of Marseille is highly likely too.

b. B: ? The victory of Bordeaux is certain, and that of Marseille is likely too.

c. B: # The victory of Bordeaux is certain, and that of Marseille is possible too.

¹ We rely on standard analyses of *only*, as can be found in (Klinedinst,2005).



Intuitively, the felicitousness of using *too* to link the modal in the second conjunct to *certain* in the first conjunct degrades as one goes down the scale for the second modal. This is not expected if one assumes that the presupposition of *too* can be bound to a logical entailment of a previous discourse segment (which indeed seems to be the case in the more felicitous (6)a, as well as in (3)).

A pilot experiment, ran in French², asked subjects to rate the naturalness of these sentences (among different types of filler) with the help of a slider bar. The subject's answer translated into a number between 0 and 100, with 100 being the mark for perfect naturalness.

The results presented in the attached figure confirm that the naturalness of the examples goes down as the distance between the modals grows. The observed differences between each example are statistically significant (all *p-values* are under 5% for the Mann-Whitney Rank Sum test). Once again, purely presuppositional analyses of *too* cannot account for these observations³.

§2: To predict the differences between (3) and (4) and the gradience effect in (6), we make the hypothesis that *too* conveys the *similarity* of its host and its presupposition's antecedent regarding the discourse topic (in a non technical sense). For example, in (6)c, speakers are reluctant to accept the fact that *being possible* and *being certain* are the same regarding the odds of a game: two things can be semantically compatible, yet appear different. We propose to capture this through the notion of *argumentation* (e.g. (Anscombe and Ducrot, 1983)), and its explication by the notion of relevance. The basic tenet of this theory is that a proposition *p* is said to argue for a conclusion *H* iff. its relevance to it is positive (which is noted $r_H(p) > 0$). Relevance can be defined in various ways, irrelevant to our present purpose (see (van Rooij, 2004) for more details). Our proposal for the argumentative meaning of *too* is then as follows:

- Let *S* be a sentence to which *too* applies, and *A* the associate of *too* in *S*
- Let *Ant* be the host of the antecedent of the presupposition of *too* in *S*
- Let *Ant'* be the result of the substitution of *A*'s alternative in *Ant* by *A* itself
- Then $r_H(S)$ and $r_H(Ant')$ must be similar (i.e. have the **same sign** and **close values**: the closer the relevancies, the more felicitous the utterance)

Applied to (6)a, this means that the relevancies of “*The victory of Marseille is highly likely*” (=S) and “*The victory of Marseille is certain*” (=Ant' obtained by substitution of *Bordeaux* by *Marseille*) must be close for the utterance to be felicitous. In the context of (6), this is somehow acceptable (see the score for (6)a), whereas the lower modals are less felicitous since, in this context, the modal scale also serves as an argumentative scale (i.e. relevancies also go down the entailment scale). For (4), we assume, with Anscombe and Ducrot, that *only* switches the argumentative orientation of its prejacent. Thus, the second conjunct is in a systematic argumentative opposition to the first and our proposal correctly predicts that *too* cannot be felicitous there. By contrast, in (3) both conjuncts have argumentation-reverting

² The placement of French *aussi* (=too) non-ambiguously identifies its associate: the examples tested cannot have been understood as having the whole conjunct, rather than the NP, as the associate of *too*. We intend to run another survey to add results for identical and logically incompatible modals.

³ An analysis relying on local scalar implicature derivation might successfully link the binding of the presupposition of the right conjuncts in (6) to the (non)presence of an exhaustivity implicature attached to the modal. However, the data in (4) shows that if there are local scalar implicatures, *too* remains blind to them. Otherwise, (4) should be felicitous since the interpretations of the predicates in the left and right conjunct would be identical once the right conjunct is exhausted.

operators in them: *only* in the first and a *negation* in the second. Given that, usually, *some* and *all* argue in the same direction, “*only some*” and “*not all*” will also argue in the same direction, which readily explains the possibility of (3).

§3: In (6)a, the presence of *too* is optional. Recent accounts (e.g. (Amsili and Beyssade, 2009) and references therein) predict that it should be obligatory under the threat of an inconsistent *antipresupposition*, derived in Neo-Gricean fashion. They assume that *too*'s meaning is limited to its presupposition, and hence that adding *too* or not to the right conjunct of (6)a creates two *alternatives* differing only in this presupposition. Omitting *too* then conveys that *Marseille* is the only team who is highly likely to win, which contradicts the first conjunct and should prompt the preference for *too*. We argue that the argumentative dimension allows us to explain the optionality of *too* in (6)a. In this example, the speaker decides whether he wants to enforce the similarity between non-identical conjuncts: *too* does not induce alternatives. If the speaker chooses to use *too*, he explicitly conveys that the conjuncts are argumentatively equivalent. If he doesn't, he remains neutral on the issue. But in the case the conjuncts are similar, as in (1), argumentative similarity is trivial and *too* necessarily creates alternatives. The Neo-Gricean mechanism then applies, correctly predicting the obligatoriness of *too*.

Selected References: Amsili, P. and Beyssade, C. (2009) Obligatory presuppositions in discourse. In Benz, A., Kuehnlein, P., and Sidner, C., editors, *Constraints in Discourse*, volume 2 of *Pragmatics and Beyond*. Benjamins Publishers, Amsterdam and Philadelphia. ♦ Anscombe, J.-C. and Ducrot, O. (1983). *L'argumentation dans la langue*. Pierre Mardaga, Liège:Bruxelles. ♦ Klinedinst, N. (2005). *Scales and only*. Master's thesis, UCLA. ♦ Krifka, M. (1999). Additive particles under stress. In *Proceedings of SALT 8*, pages 111–128, Cornell. CLC Publications. ♦ van der Sandt, R. and Geurts, B. (2001). Too. In *Proceedings of the 13th Amsterdam Colloquium*. ♦ van Rooij, R. (2004). Cooperative versus argumentative communication. *Philosophia Scientia*, 2:195–209.