NPI Intervention: Crosslinguistic Judgments

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Motivation

Claim: Factive predicates block NPIs in French & Italian, but not English:

- (1) I regret that this ever happened.
 - * Rimpiango che questo sia mai accaduto.
- (Chierchia, 2015)
- (2) / John doesn't realize that Mary has any chance of winning.
 - * Jean ne sait pas que Marie a la moindre chance de gagner. (Homer, 2008)

We investigate the nature of this variation across three languages.

Background

Theory: Negative Polarity Items (NPIs) like ever, at all, bother to are licensed in Strawson Downward Entailing (SDE) environments (von Fintel, 1999) in which entailment is: to more specific cases and never undefined due to presupposition failure.

- Only John had **cake**. \Rightarrow Only John had birthday cake.
- If you accommodate the presupposition that... ≫ John had birthday cake.
- (4) / Only John had any cake.

Chemla et al. (2011): French speakers' downward inferences predict their acceptance of the NPI le moindre 'a single'. (45 undergrads, within-subjects, continuous scale)

Problem: Some presuppositions **intervene** in NPI licensing, so are not accommodated:

- (5) [Mary read an interesting book.] * John_F didn't read anything interesting too.
- (6) [Mary read no interesting books.] ✓ John_F didn't read anything interesting either. (Homer, 2008)

 $[too](p) = \lambda w : \exists q \neq p[q(w) = 1] . p(w)=1$ [either] $(p) = \lambda w : \exists q \neq p[q(w) = 0] . p(w)=1$ Presupposition different Assertion same

Our question: If factives really intervene, what is the cross-linguistic difference? Is it due to the factive presupposition (a challenge for the SDE theory)?

Experimental Conditions

Cognitive vs. Emotive Factives

- Cognitive factives are **soft triggers**, and can be cancelled:
 - (7) If I later discover that I've lied, I'll confess. If I later regret that I've lied, I'll confess.

≯ I lied. \gg I lied.

- Cognitive factives have **at-issue** complements that can be used to answer questions:
 - (8) Where was Harriet yesterday?
 - Henry discovered that she had an interview at Princeton.
 - ?? Henry is happy that she had an interview at Princeton.

Djärv et al. (to appear): people more readily accept affirmatives that contradict emotive factives than cognitive factives. (62 undergrads, within-subjects, Likert scale)

- Cognitive factives do not license NPIs:
 - (9) * John discovered that he had left any food in the fridge. ✓ John regretted that he had left any food in the fridge.

Weak vs. Strong NPIs

Certain NPIs are **strong**, and cannot appear in certain environments including:

- (10) Emotive factives:
 - a. I regret ever meeting you.
 - b. * I regret meeting you in years.
- (11) Non-neg-raising predicates:
 - a. ✓ I didn't claim I'd ever seen her.
 - b. # I didn't claim I'd seen her in years.

Experimental Design

Setup: Subjects recruited on Mechanical Turk from US+Canada (n = 46); Italy (n = 29); and France+Canada (n = 34). Lists created using TurkTools (turktools.net). Sentences presented in discourse contexts; subjects asked to rank "naturalness" of response from 1–5. Lists parallel across languages; e.g., list 1/item 1:

- En. 1: Shane is surprised that Rachel has at some point eaten carrots.
 - 2: No, he isn't surprised that she has ever eaten carrots.
- It. 1: Quirino è sorpreso che Dafne talvolta ha mangiato carote.
 - 2: Non è vero, lui non è sorpreso che lei abbia mai mangiato carote.
- Fr. 1: Auguste est surpris qu'Ophélie ait mangé des carottes plusieurs fois.
 - 2: Ce n'est pas vrai, il n'est pas surpris qu'elle ait mangé quelque carottes que ce soit.

Conditions: Within subjects Between subjects = 24 items/subject × 3 Languages 2 polarities \times 4 matrix verbs \times 3 NPIs affirmative non-neg-raising no NPI English negative weak NPI Italian neg-raising

Plurality: All food words used as object nouns were count nouns. **Mood:** Subjunctive used for items like *pensare* whose negated indicative is factive.

strong NPI

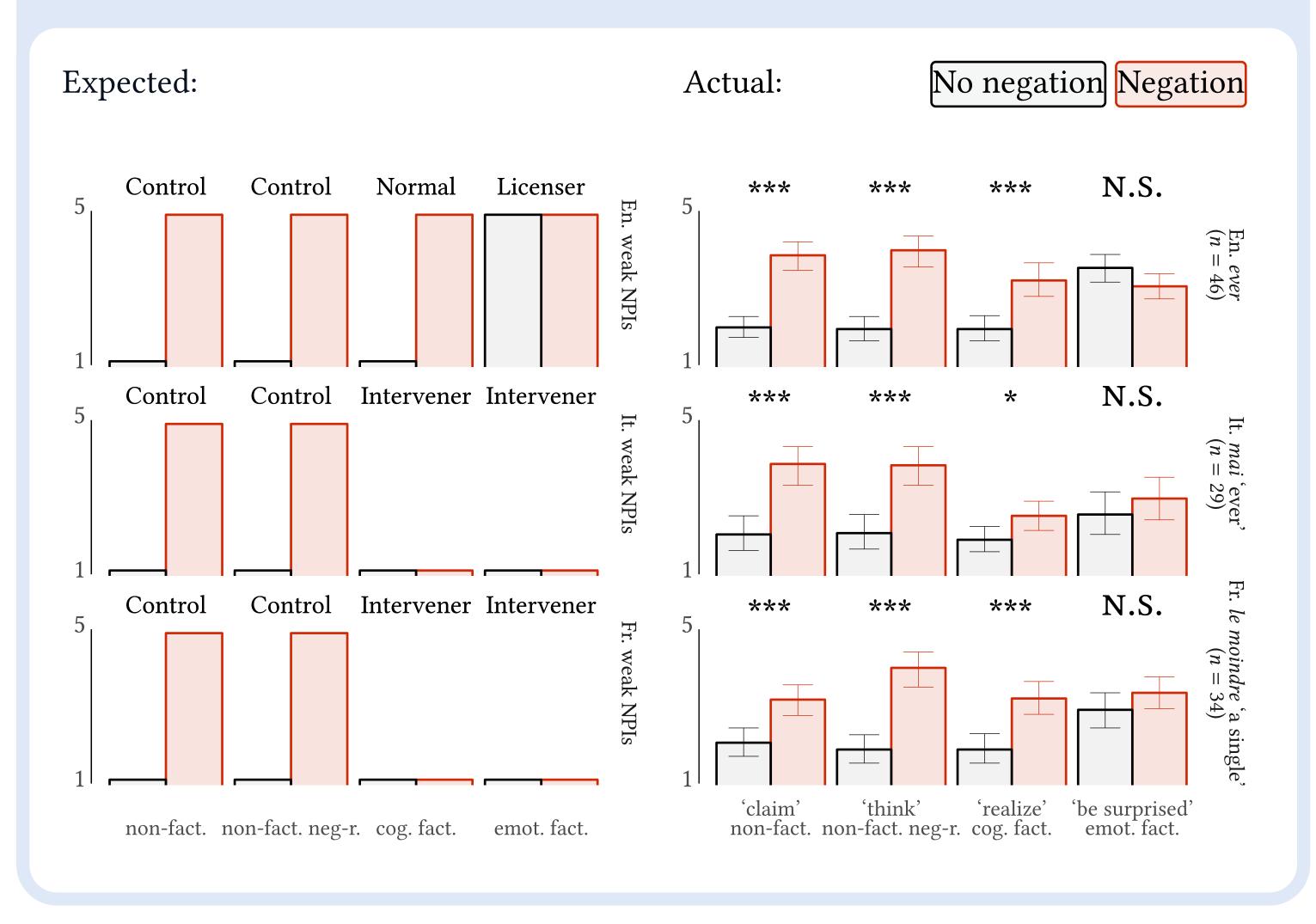
French

cognitive factive

emotive factive

Gloss	Italian	Aff.	Neg.	French	Aff.	Neg.
'claim'	sostenere	IND	SBJV	déclarer	IND	IND
'think'	pensare	SBJV	SBJV	penser	IND	SBJV
'realize'	rendersi conto	IND	IND	réaliser	IND	IND
'be surprised'	essere sorpreso	SBJV	SBJV	être surpris	SBJV	SBJV

Results



Conclusions

What we learned:

Future questions:

Italian has factive intervention (expected). French seems intermediate (unexpected!).

English has no factive intervention (expected). What is the locus of variation? Is this intervention presuppositional?

References

Chemla, E. et al., 2011. Modularity and intuitions in formal semantics. LP 34 Chierchia, G., 2015. Factivity meets polarity. Linguistics colloquium talk, UC Berkeley Djärv, K. et al., to appear. Cognitive vs. emotive factives: An experimental differentiation. SuB 21 von Fintel, K., 1999. NPI licensing, Strawson entailment, and context dependency. JoS 16 Homer, V., 2008. Disruption of NPI licensing: the case of presuppositions. SALT 18