

TO PARSE OR NOT TO PARSE: SYMMETRIC FILTERING IN NEGATED CONJUNCTIONS

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Asymmetry in projection

- Presuppositions project asymmetrically from conjunctions (Stalnaker 1974, Heim 1983 a.o.):
 - (1) **Context:** We have no idea whether or not Mary has ever smoked.
 - (2) a. #Mary stopped smoking and she used to smoke
b. ✓Mary used to smoke and stopped smoking
- Experimental evidence to this effect as well: Mandelkern et al 2020

Experiment 1: Design

- **Triggers:** *find out, happy, aware, stop, continue, again*
- **Items:** Simple vs Negated Conjunctions (CONJTYPE) in Support vs Explicit Ignorance contexts (CONXTYPE)
 - (5) Sue likes to keep close tabs on her husband, Donald. One day I saw a ticket from the Berlin opera in Donald's office. I don't know whether Donald visited Germany, so I thought: (EI)
 - (6) ... I know that he visited Germany recently. So I thought: (S)
 - (7) If Sue didn't find out that Donald visited Germany and he visited Berlin, then that would be very strange. (NEGCONJ)
 - (8) If Sue found out that Donald visited Germany and he visited Berlin, then she must know about the opera ticket. (SIMPLECONJ)
- **Task:** how acceptable is a sentence in the given context on a scale 1 - 9?
- **Parsing-Based:** Interaction between CONXTYPE and CONJTYPE
- **Constituent-Based:** No interaction between CONXTYPE and CONJTYPE

Experiment 2: Design

- **Purpose:**
 - Investigate the trigger split further
 - What if Local Acc (Heim 1983) is easier under negation?
- **Design:** same, with two extra conditions: EI-LOCACC, S-LOCACC
 - (9) Sue likes to keep close tabs on her husband, Donald. One day I saw a ticket from the Berlin opera in Donald's office. I don't know whether Donald visited Germany, so I thought: (EI)
 - (10) ... I know that he visited Germany recently. So I thought: (S)
 - (11) If Sue didn't find out that Donald visited Germany, then ... (LOCACC)
- Difference between EI-LOCACC vs S-LOCACC ⇒ costliness of Local Acc under negation
- If difference between EI-NEGCONJ vs S-NEGCONJ due to ease of LocAcc:
 - No interaction between CONXTYPE (EI vs S) and CONDTYPE (NEGCONJ vs LOCACC)
- We also expect a trigger split parallel to Exp 1

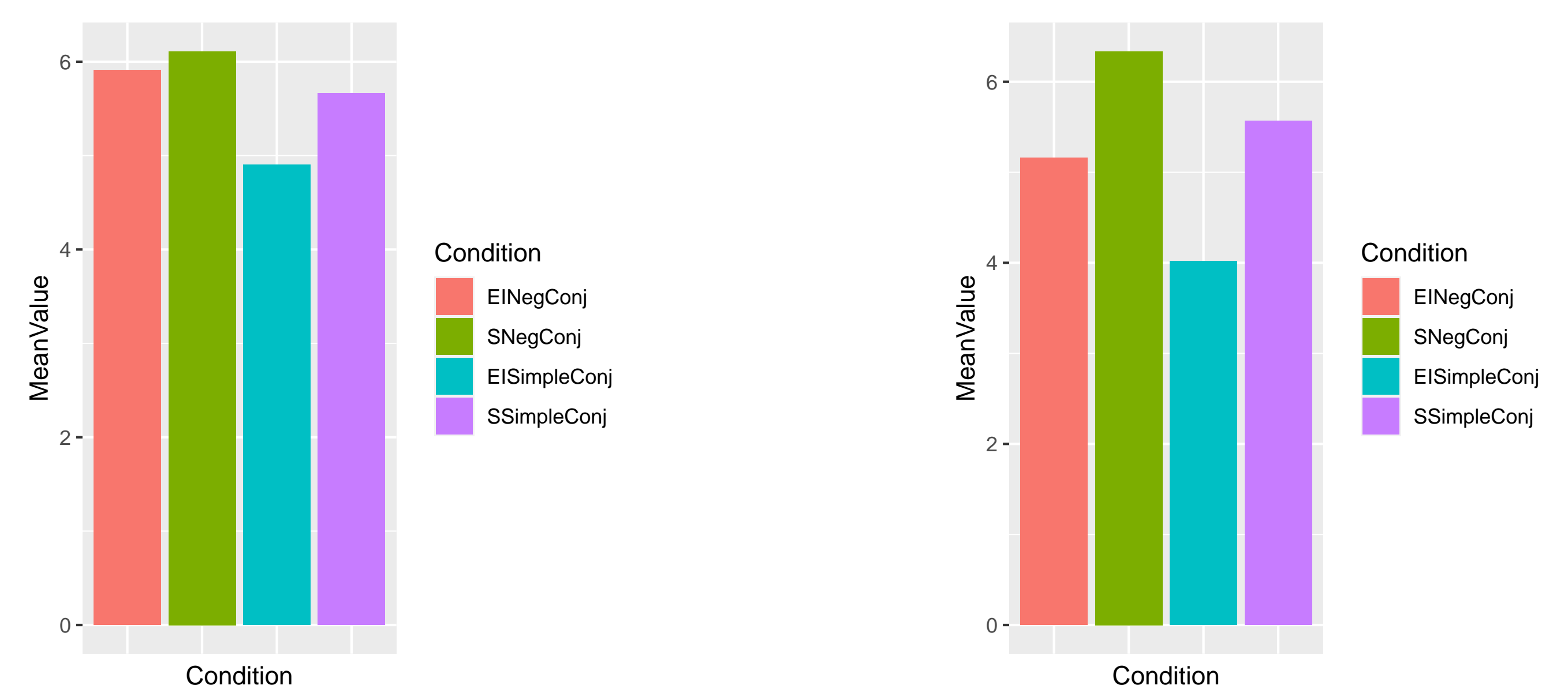
Conclusion

- Prediction of *Limited Symmetry* **substantiated for a subclass of triggers:** *find out, happy, aware*
- However, a *stop, continue* behave differently
- Behavior of *again* a puzzle
- **Future experiments:** zoom in on specific triggers (e.g. *stop* vs *find out*) to isolate trigger split more clearly

Constituency vs Linearity

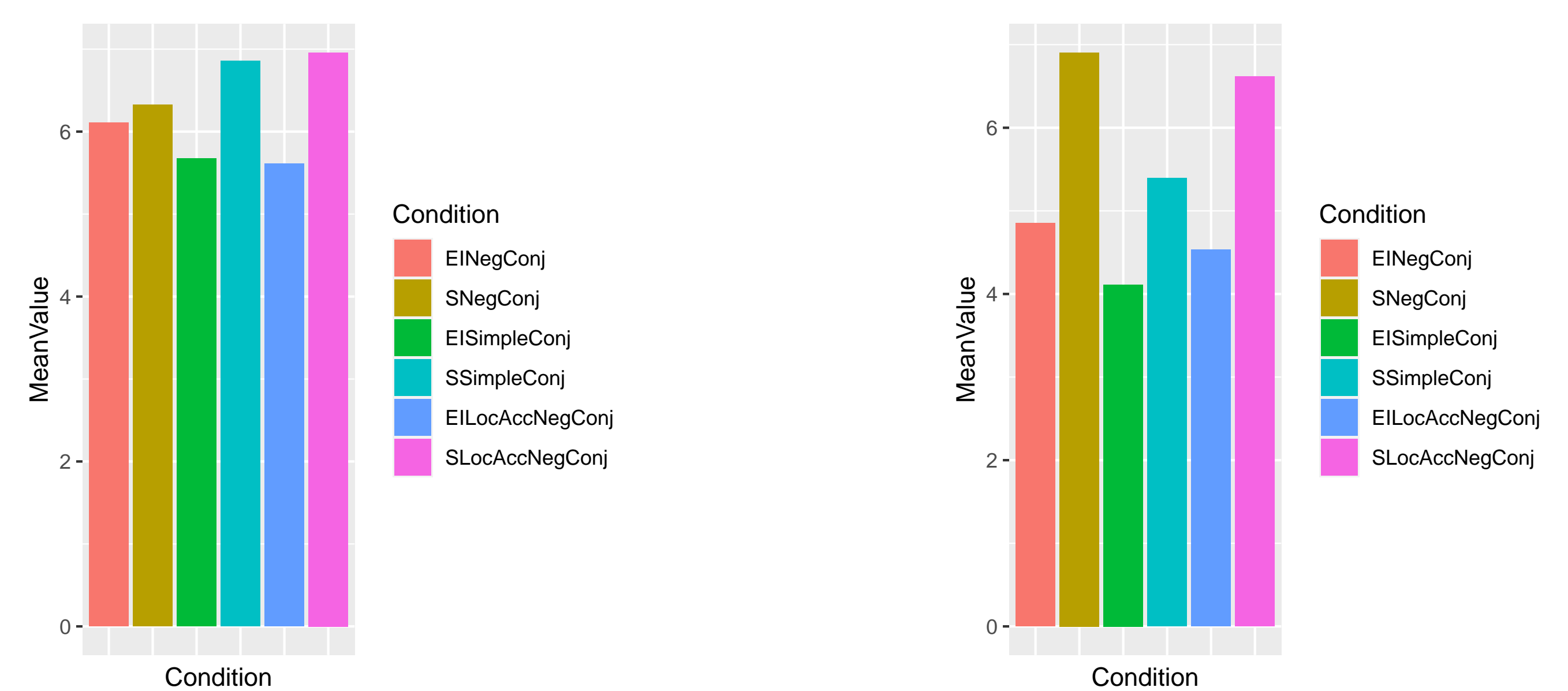
- Classic theories of projection follow constituent structure (cf. Karttunen 1973)
 - A presupposition projects from negation and the first conjunct
- (3) a. Mary stopped smoking and she used to smoke ✗
b. Mary didn't stop smoking and she used to smoke ✗
- **Alternative:** a theory that works on linear representations (here *Limited Symmetry*, Kalomoiros (forth.))
 - Predicts a difference between simple conjunctions and negated conjunctions:
- (4) a. Mary stopped smoking and she used to smoke ✗
b. Mary didn't stop smoking and she used to smoke ✓

Experiment 1: Results



- $N = 163$
- Interaction between CONXTYPE and CONJTYPE
- But, driven by *find out, happy, aware, again*
- *stop, continue* do not show interaction

Experiment 2: Results



- $N = 172$
- Overall interaction between CONXTYPE (EI vs S) and CONDTYPE (NEGCONJ vs LOCACC)
- Trigger split:
 - *find out, happy, aware, again* show interaction between CONXTYPE vs CONJTYPE
 - *stop, continue* do not show such an interaction
- No overall interaction between CONXTYPE vs CONJTYPE across all triggers

References

- Heim, I. (1983). On the projection problem for presuppositions. *Formal semantics: the essential readings*, 249-260.
- Kalomoiros, Alexandros. (Forthcoming). Deriving the (a)-symmetries of presupposition projection. Forthcoming in the proceedings of NELS 52.
- Karttunen, L. (1973). Presuppositions of compound sentences. *Linguistic inquiry*, 4(2), 169-193.
- Mandelkern, M., Zehr, J., Romoli, J., & Schwarz, F. (2020). We've discovered that projection across conjunction is asymmetric (and it is!). *Linguistics and Philosophy*, 43(5), 473-514.
- Stalnaker, R. (1974). "Pragmatic Presuppositions." In Munitz, M. and Unger, P. (eds.) *Semantics and Philosophy*. New York: New York University Press.