



## Rise-fall-rise (RFR)

### Prior Accounts

- \* uncertainty relative to a scale [13]
- \* unclaimable alternatives [2]
- \* incomplete answer [12, 6]
- \* secondary QUD [14]
- \* presence of higher alternative [4, 5]

⇒ Predictions for scalar inferences:

decrease: [13, 12, 14]; increase/ambivalent: [4, 5, 2]

### SI rate

- o evidence against [13, 12, 14] (see also [3])

### Scale variation

- ? question context less compatible with “evaluative” scales [4, 5]
- ? order of negative predicates on Horn-scale (<cool, cold>) reversed on measurement scale (<cold, cool, warm, hot>), thus stronger predicate not higher [11]

## “Concession” Contour (CC)

Resemblance with Contradiction Contour: [9]

- (1) A: Too bad elephantiasis is incurable...  
B: Elephantiasis isn't incurable!

\* ContC presupposes contextual evidence against  $p$  [7]

### SI rate

- o questions convey uncertainty → relation to evidence against  $p$ ?

### Scale variation

- x non-uniform variation unexpected

## Experiments

A: { Was the winner ecstatic? (“strong”)  
Was the winner happy? (“same”)

You/B: She was happy.

Given your/B's response, do you think A would conclude that the winner was not ecstatic? - “Yes”/“No”

Method: 60 scalar predicates from [10] plus 20 fillers

- Exp 1 (N=37): Participants read dialogue, listened to audio of A, recorded reply, then answered question → Recordings manually annotated for contour
- Exp 2 (N=73): Participants listened to full dialogue (“strong” condition only!), then answered question

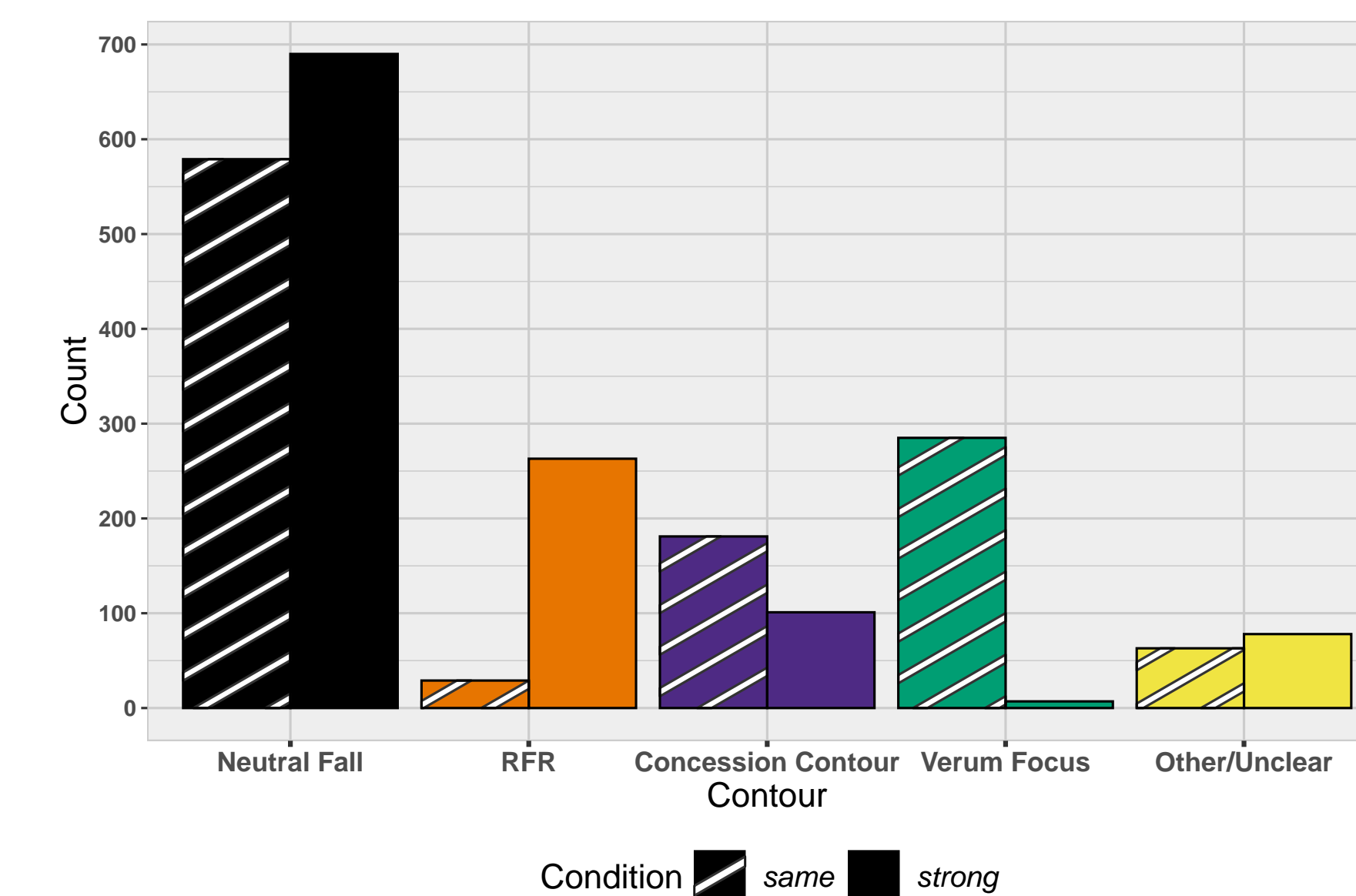


Figure 1. Production contours

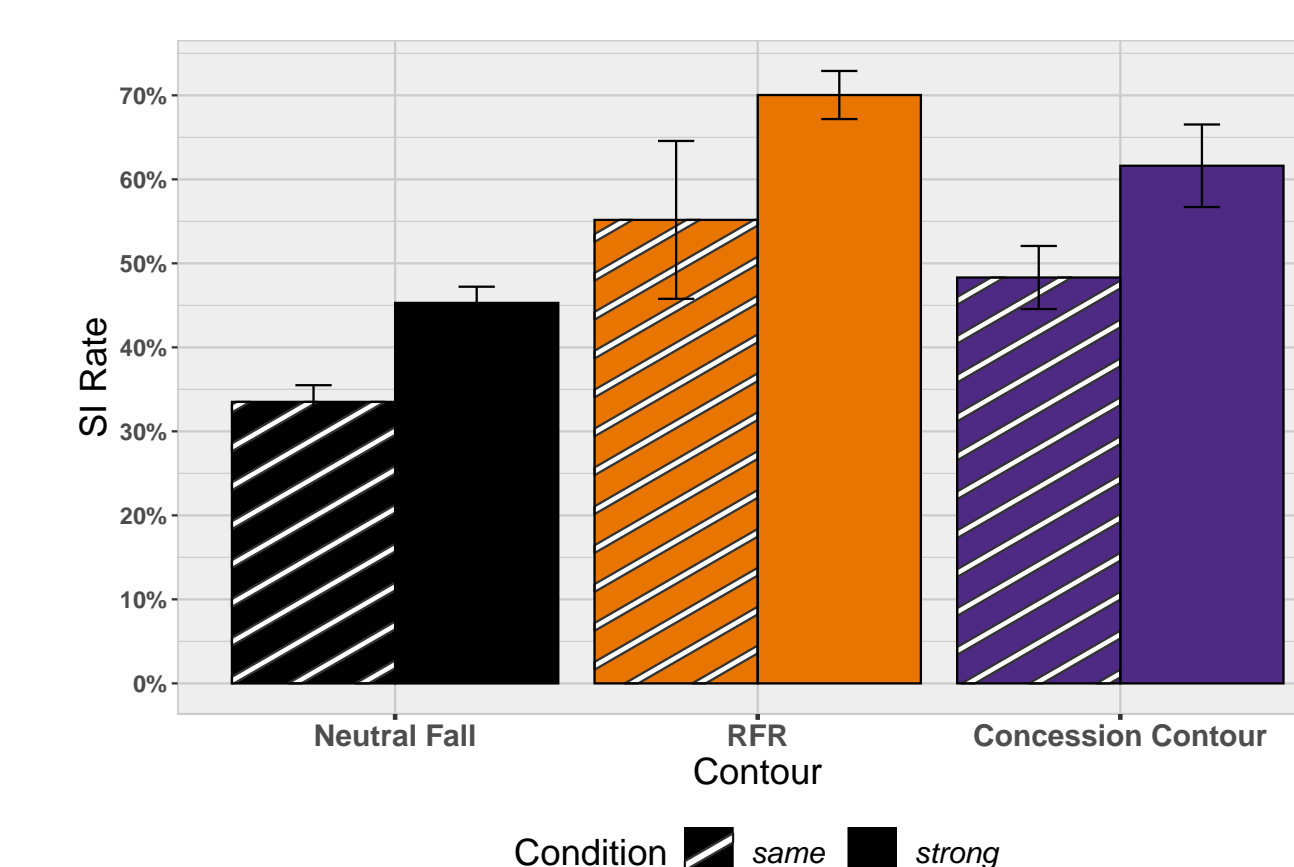


Figure 2. Production SI rates

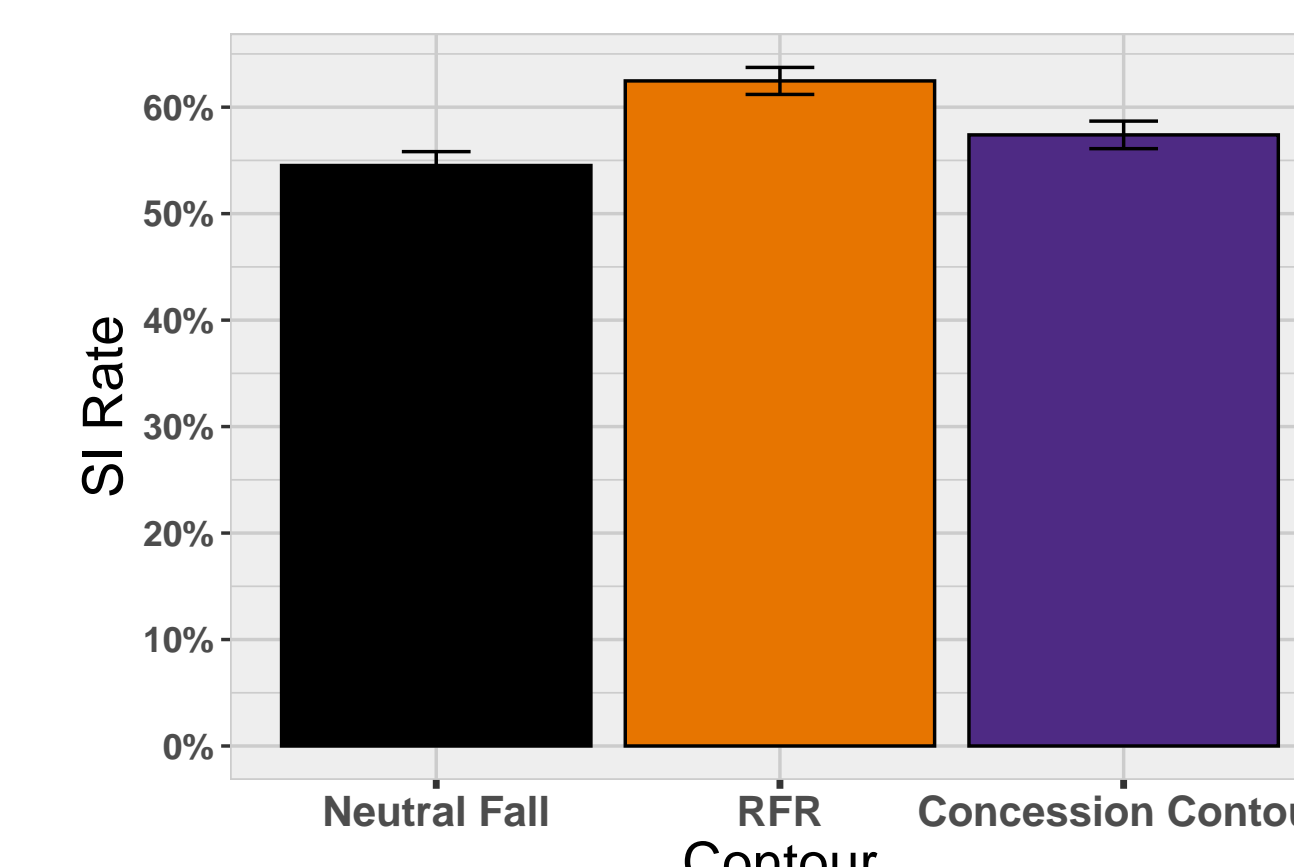


Figure 3. Perception SI rates

- Higher SI rates in “strong” ( $p < 0.001$ , replicating [10])
- Higher SI rates with RFR compared to Fall ( $p < 0.05$ ,  $p < 0.01$ )
- SI rates for CC in between Fall and RFR
- larger difference for Production than Perception

## Scale Variation

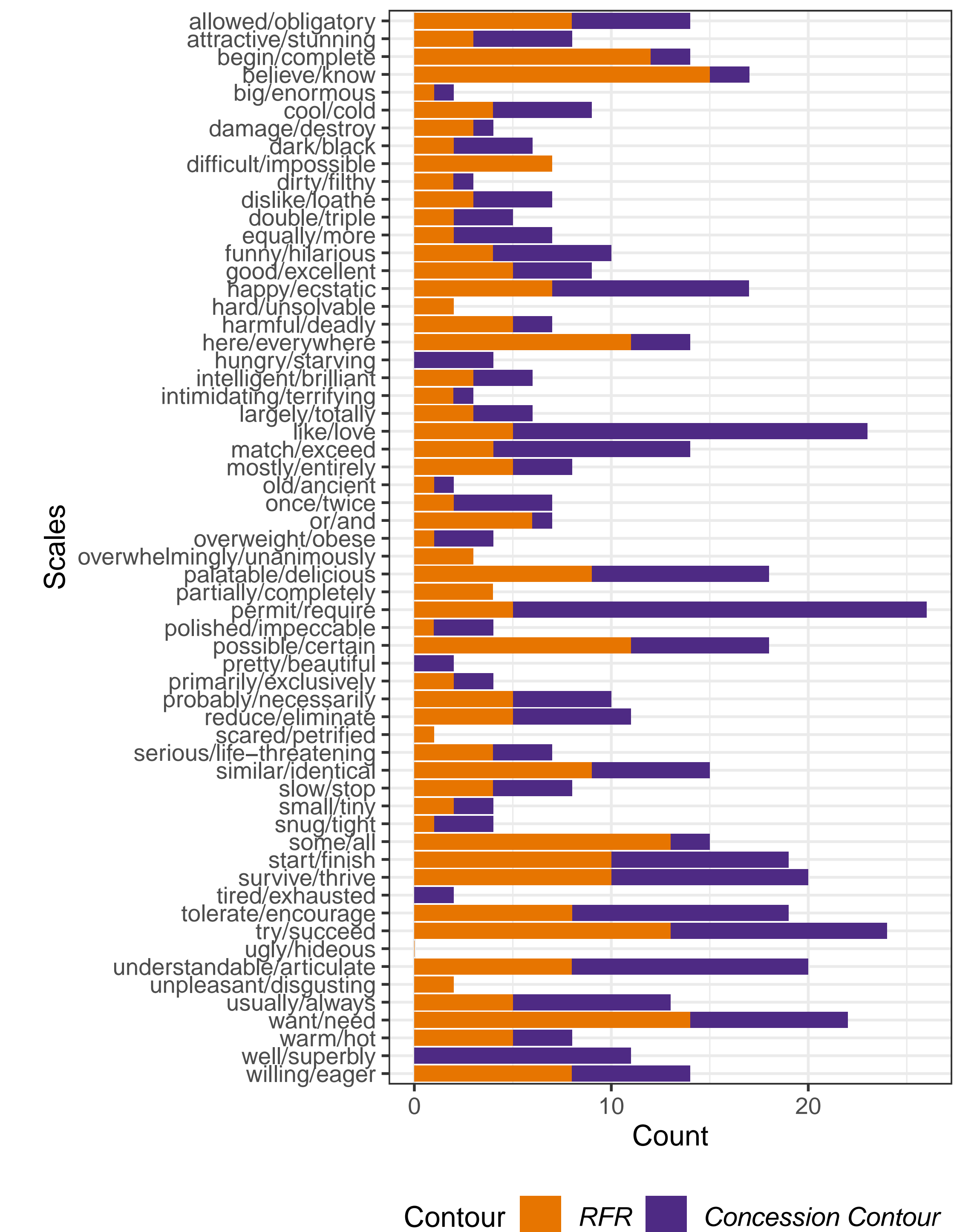


Figure 4. Production contours by scale

### Impressionistic patterns (speculative!)

- RFR infrequent with adjectival scales
- RFR & CC infrequent with negative scales (e.g. ugly)

## Concluding Remarks

- results imply need to control for intonation in studies on scalar diversity
- question about relation between scalar inferences and ignorance inferences (see [1])

References: [1] Buccola & Goodhue (2023), CLS59; [2] Constant (2012), L&P; [3] de Marneffe & Tonhauser (2019), Questions in Discourse; [4] Göbel (2019), SALT29; [5] Göbel & Wagner (2023), ELM2; [6] Goodhue et al. (2016), NELS46; [7] Goodhue & Wagner (2018), Glossa; [8] Höhle (1992), Informationsstruktur und Grammatik; [9] Liberman & Sag (1974), CLS10; [10] Ronai & Xiang (2022), LSA2022; [11] Solt (2015), L&L; [12] Wagner et al. (2013), SemDial17; [13] Ward & Hirschberg (1985), Language; [14] Westera (2019), Secondary content: the linguistics of side issues  
Acknowledgments: We are indebted to Emma Nguyen and Luke Adamson for providing audio stimuli, as well as Dan Goodhue, Sunwoong Jeong, Deniz Rudin, Michael Wagner, and the UPenn Experimental Semantics Lab for feedback.