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Investigating Social Grounding of Abstract Words

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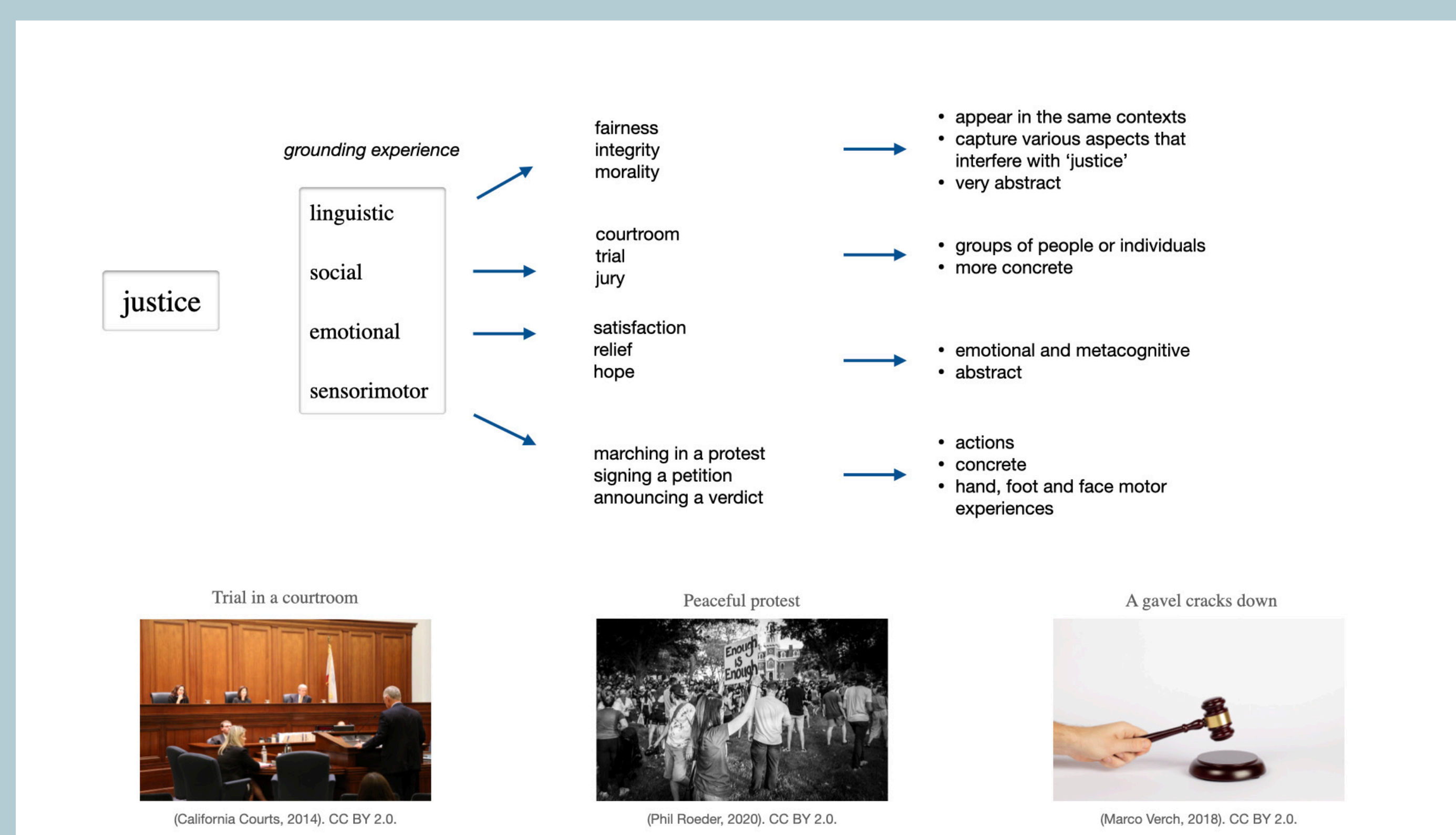
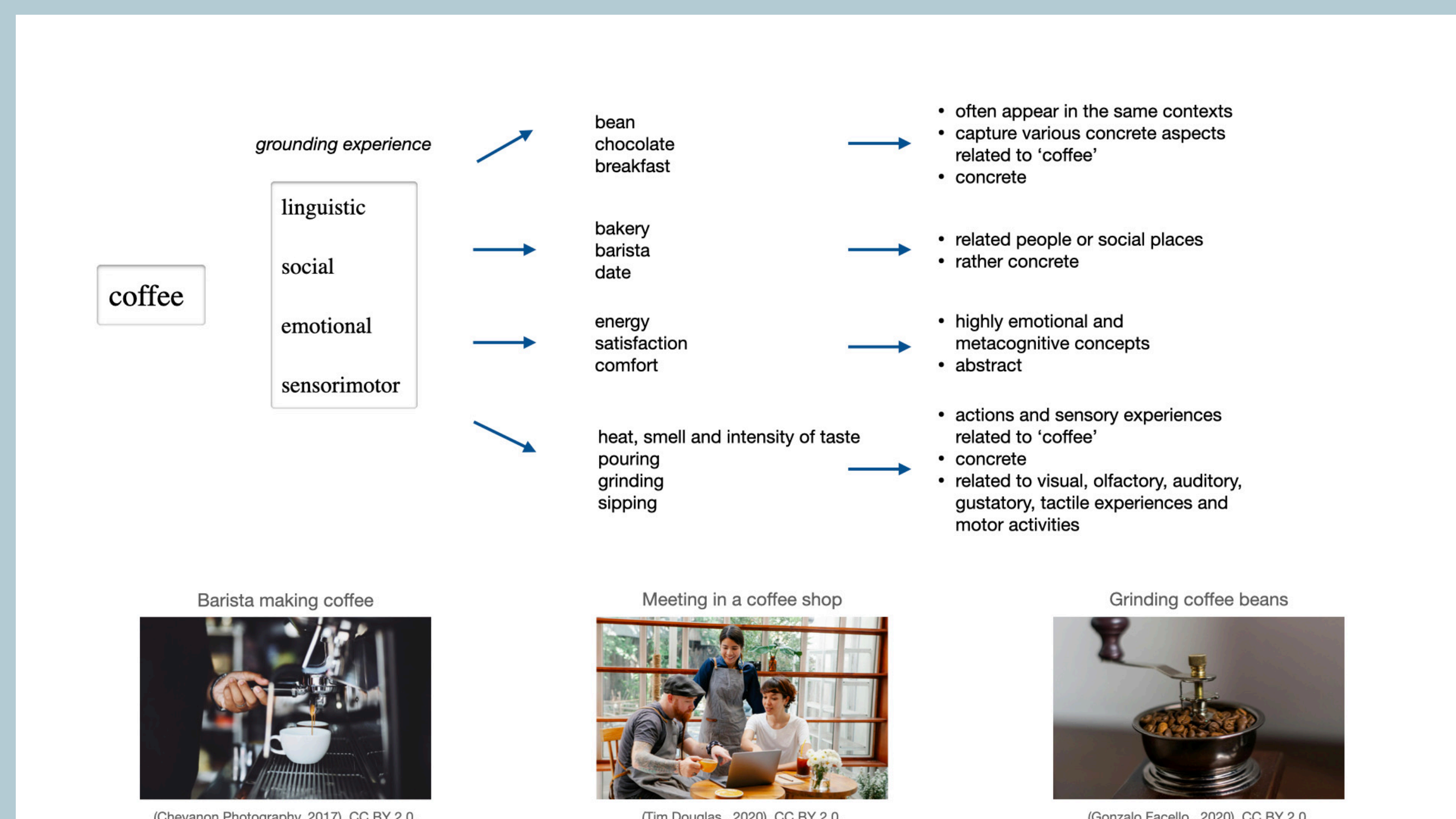
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Hybrid theory of concepts grounding



Hypothesis

If socialness (socialness, Diveica et al., 2022) is grounding experience for abstract concepts, it should enhance recognition of abstract words, not concrete ones, in the same way as it was proven that emotional valence (valence, Warriner et al., 2013) facilitates abstract, but not concrete words recognition (e.g., Kousta et al., 2011).

Methodology

- **Strategic Activation**: Explicit Semantic Categorization Task (SCT) determines if participants consciously use social or emotional information.
- **Non-Strategic Activation**: Implicit SCT and Lexical Decision Task (LDT) assess automatic word processing without conscious attention to social and emotional semantic categories.

Block 1. Lexical Decision Tasks with Priming

Participants and Materials

- 200 British English native speakers (ages 18-40, online).
- **E1**: 320 English nouns with 160 social and 160 non-social primes.
- **E2**: 400 English nouns with 200 valenced and 200 neutral primes.

Block 2. Semantic Categorization Task with Priming

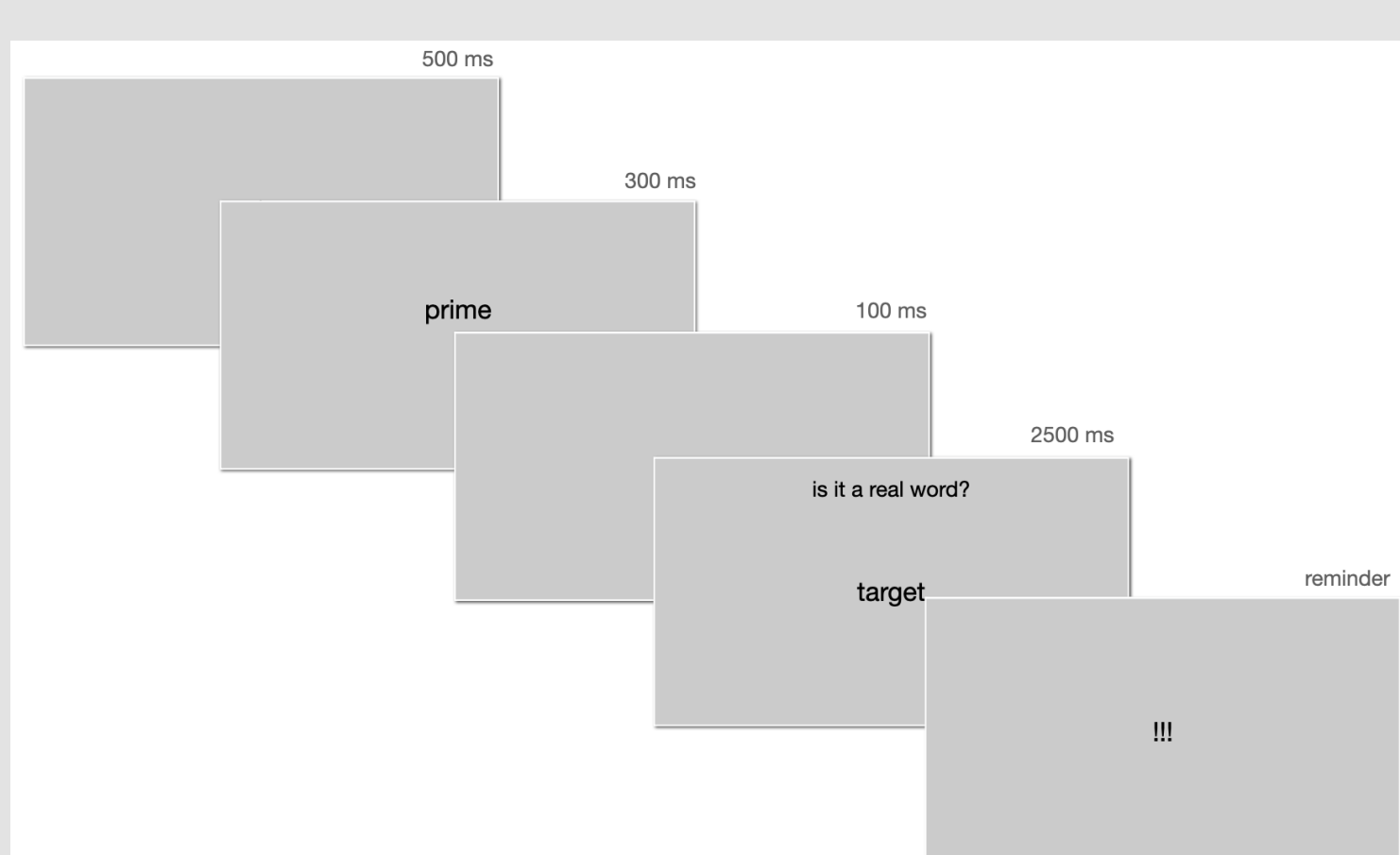
Participants and Materials

- 200 British English native speakers (ages 18-40, online).
- Same stimuli as in the LDT.

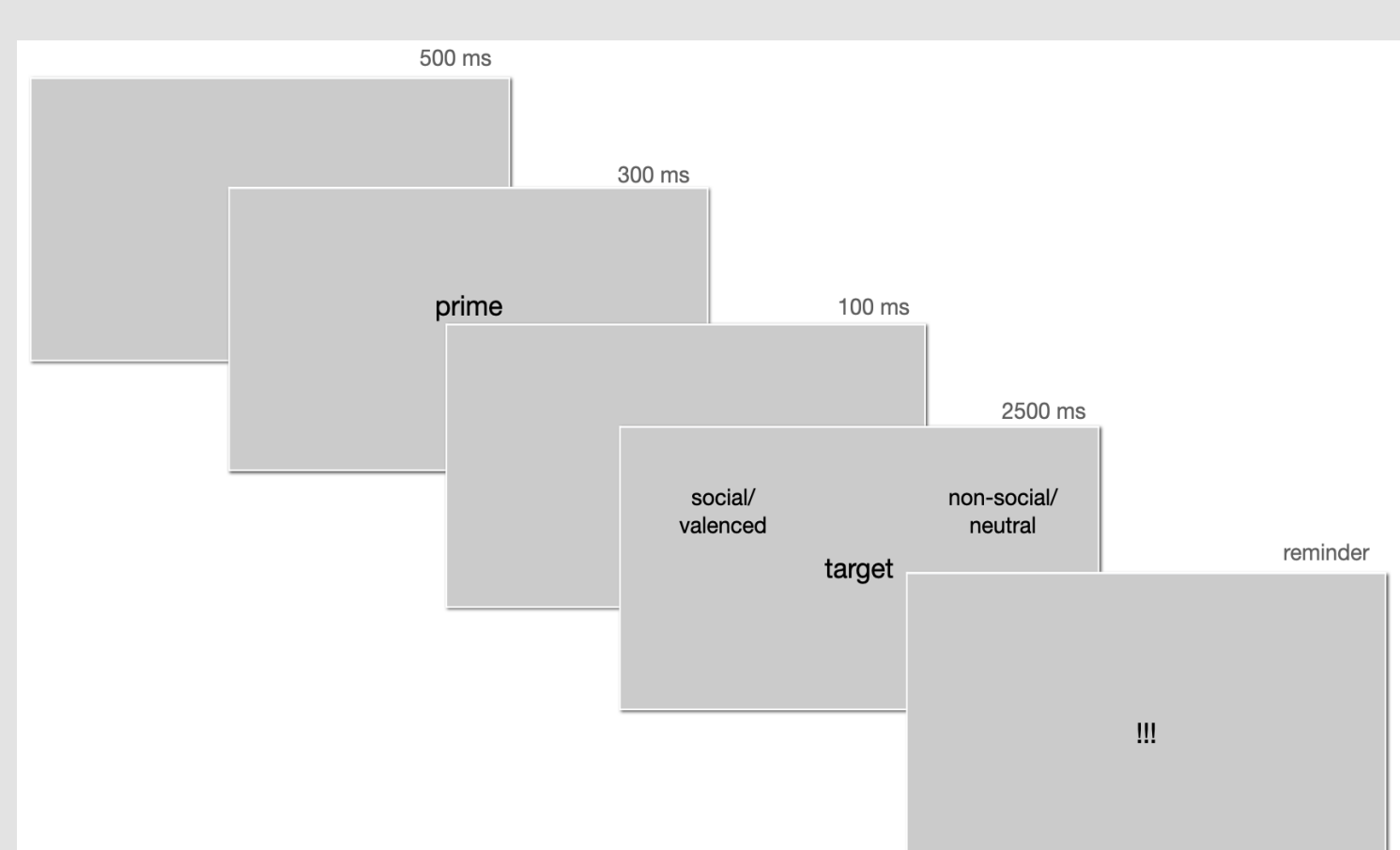
Tasks

Explicit: determine if the word describes a social/non-social or emotional/neutral concept. Implicit: classify words as abstract or concrete without explicit focus on social or emotional content.

LDT procedure

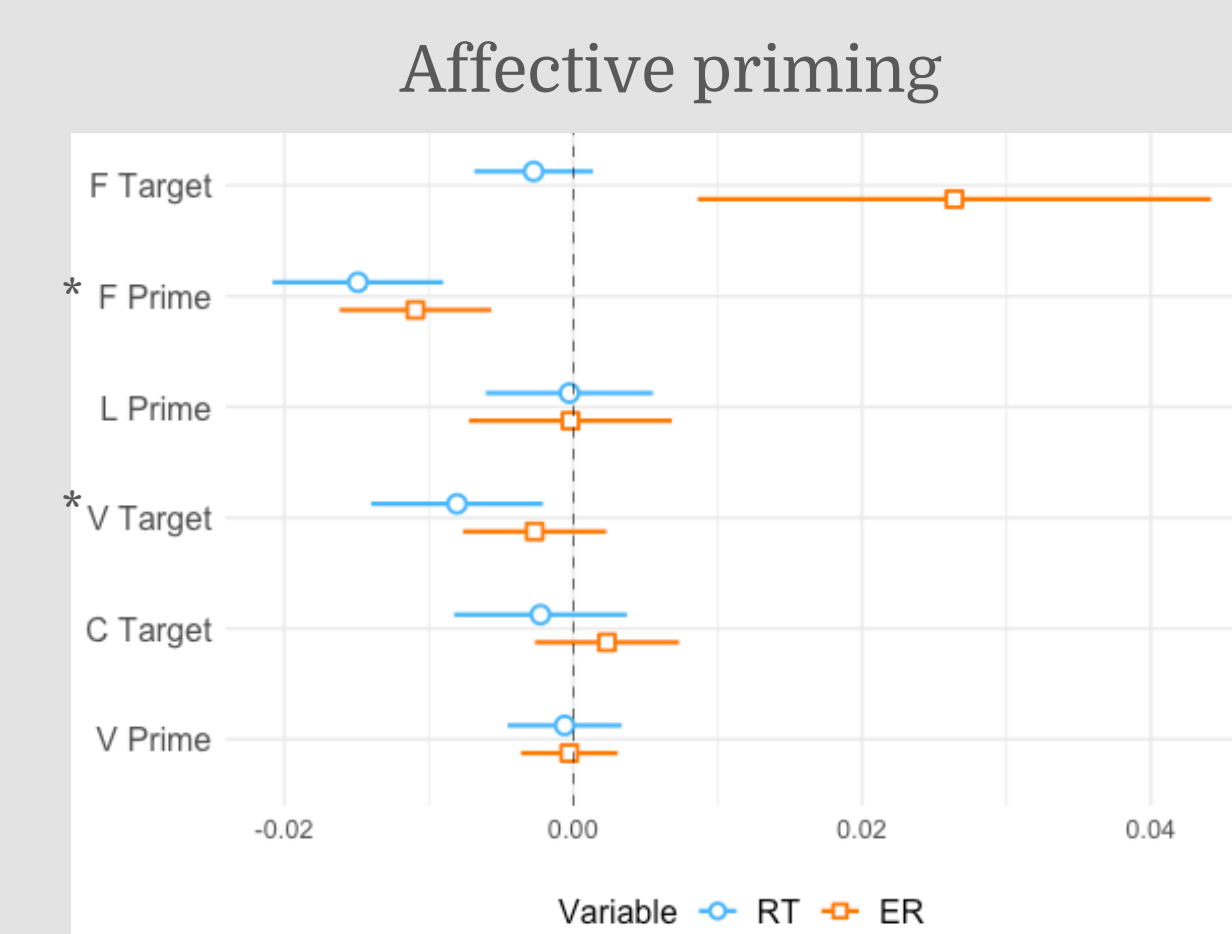
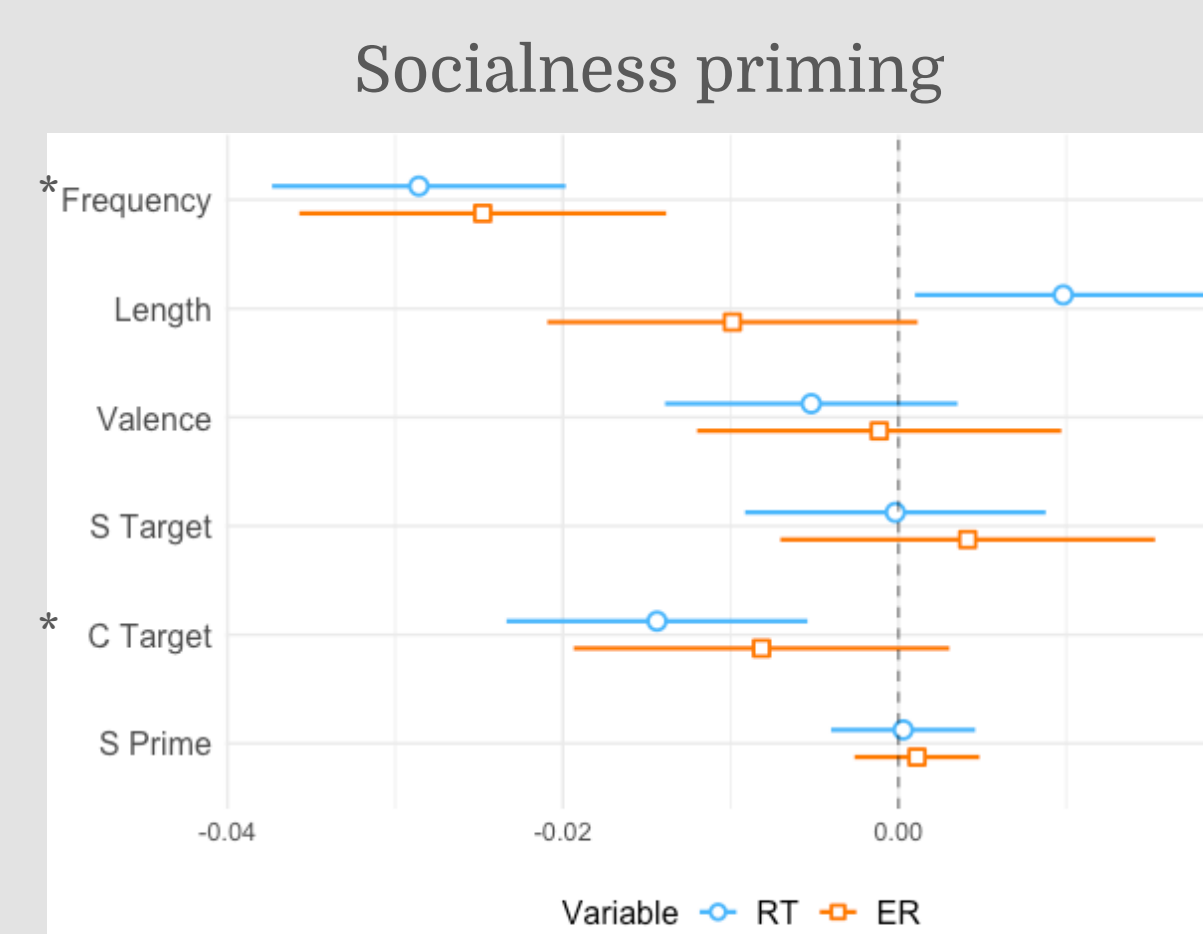


SCT procedure

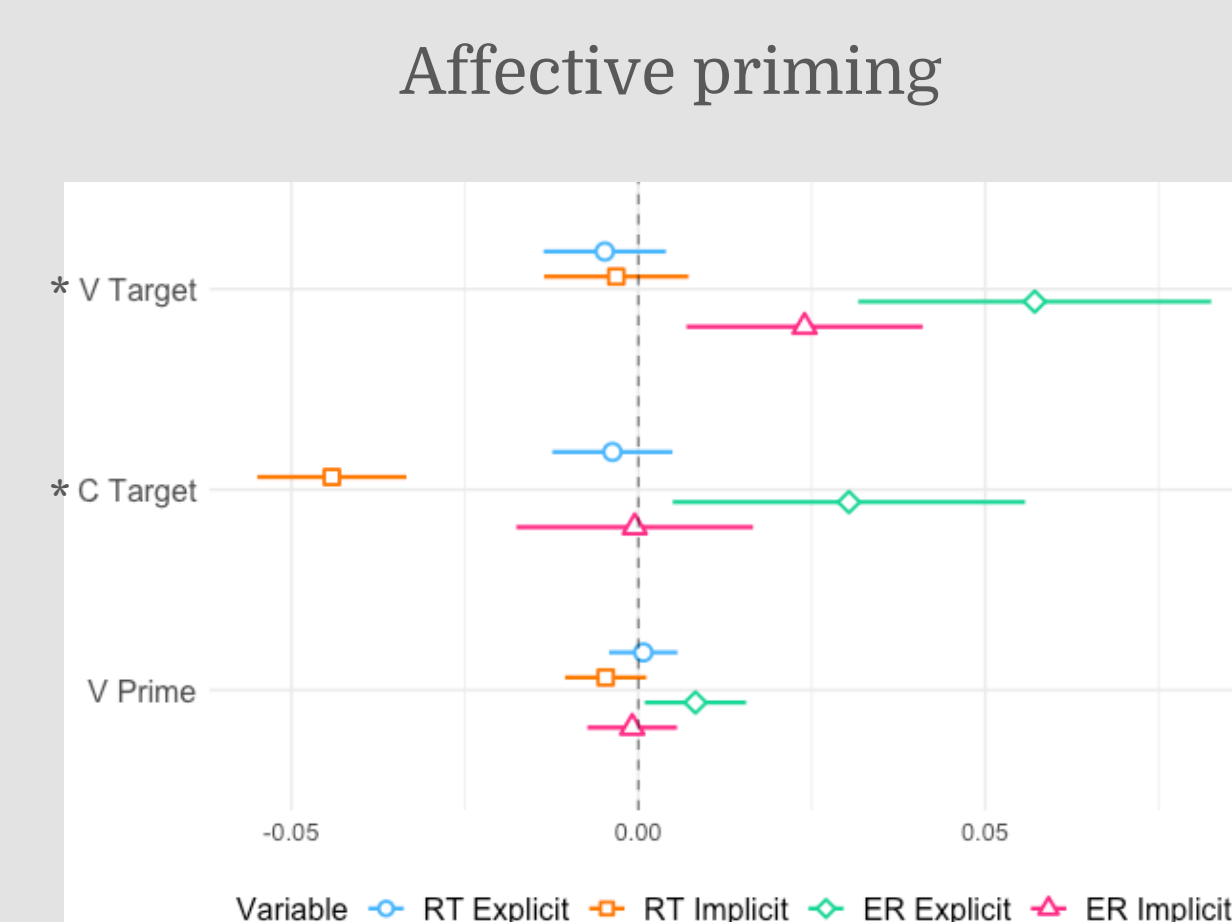
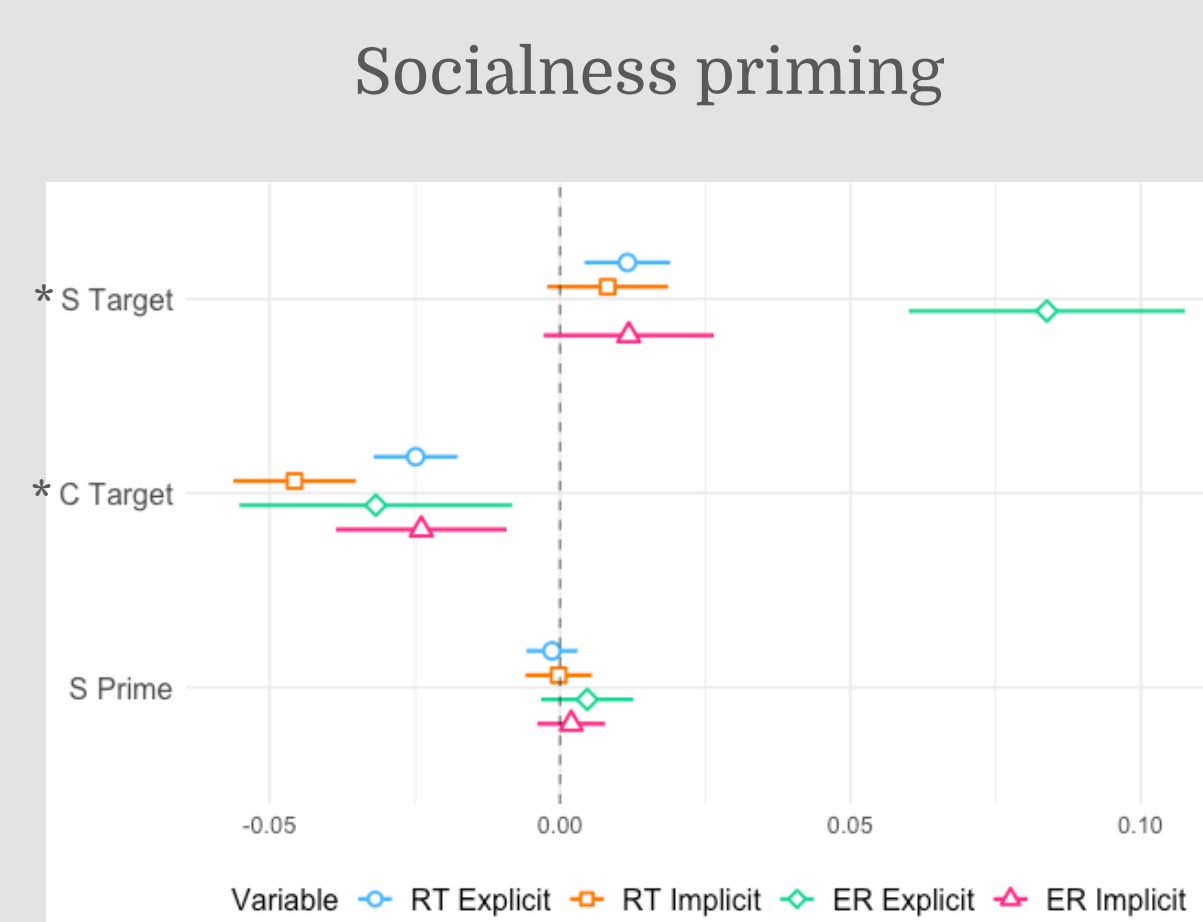


Results

LDT



SCT



Interaction effects in Explicit Task:
In RT: valence facilitated the processing of abstract targets ($b = -0.11, t = -4.47, p = 0$) and inhibited the processing of concrete targets ($b = 0.07, t = 2.6, p = 0.01$).
In error rates: no effect of valence on the processing of abstract targets and an inhibitory effect on the processing of concrete targets ($b = -0.3, t = 6.3, p = 0$).

Conclusion

- Consistent with our previous findings (Goriachun et al., 2024, under the review), frequency has the strongest impact on word recognition in LDT.
- **Social information does not seem to be activated strategically** to help the processing of abstract or concrete words.
- **Emotional information** facilitates abstract words recognition only in explicit tasks.
- Lack of effect of social and emotional information on abstract word recognition in implicit tasks suggests these factors may not be fundamental for grounding abstract words.

Future research

Abstract and Concrete Words Processing in a Joint Categorization Task

Hypothesis

Abstract words are recognized better when the task is performed in social context, particularly when performed jointly with another person.

Methodology

- Builds on previous work with individual SCTs.
- Introduces a joint approach requiring participant agreement for task performance.

Participants and Materials

- 40 French native speakers (age: 18 – 40).
- 100 French nouns categorized as: 25 abstract social, 25 abstract non-social, 25 concrete social, and 25 concrete non-social.

Procedure

- Setup: Participants engage individually on laptops but are seated facing each other.
- Feedback: Post each joint-response, feedback is given on whether decisions align.

Tasks

- Explicit Task: Participants distinguish between social and non-social words.
- Implicit Task: Participants categorize words as abstract or concrete.



References

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- Warriner, A. B., Kuperman, V., & Brysbaert, M. (2013). Norms of valence, arousal, and dominance for 13,915 English lemmas. *Behavior Research Methods*, 45(4), 1191–1207.