Investigating Emotion-label and Emotion-laden Words in a Semantic Satiation Paradigm

Ryan Hildebrandt & Tina Sutton, PhD

Department of Psychology, College of Liberal Arts, Rochester Institute of Technology Presented at 60th Annual Meeting of the Psychonomic Society, 2019, Montreal

INTRODUCTION

- Emotion-label words (e.g., sad) and emotionladen words (e.g., funeral) are processed differently, emotion laden words often exhibit smaller processing effects [1]
- Negative words are attended to and hold attention for longer than positive words [2]
- Semantic satiation can make a word's meaning less accessible, and has been applied to emotion words and faces [3]
- The goal of the current study was to characterize the role of word type and valence in word processing

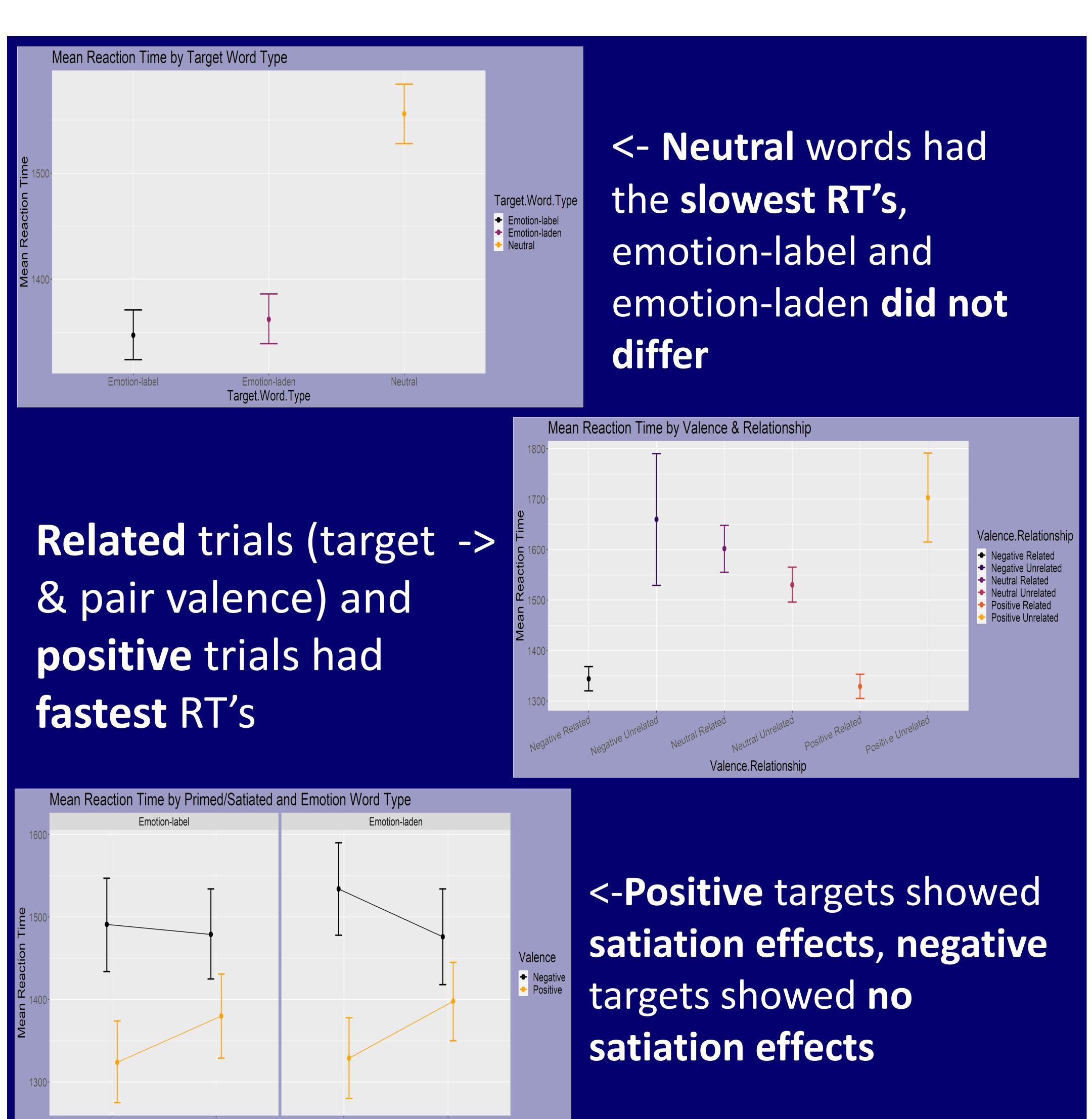
METHODS & ANALYSES

- Undergraduate RIT students (n=71, mean age= 19.3, 27 male, 43 female, 1 non-binary)
- Satiation paradigm [4][5]
 - Positive, negative, neutral words, controlled for arousal
 - Emotion-label, emotion-laden, neutral words
 - Target words repeated 3 (primed) or 30 (satiated) times
- Task: evaluate if the valence of two paired words matched or differed
- SAM scale word ratings on valence and arousal [6]
- BDI-II & STAI inventories[7][8]
- 4-way ANOVA for the effects of IV's on task



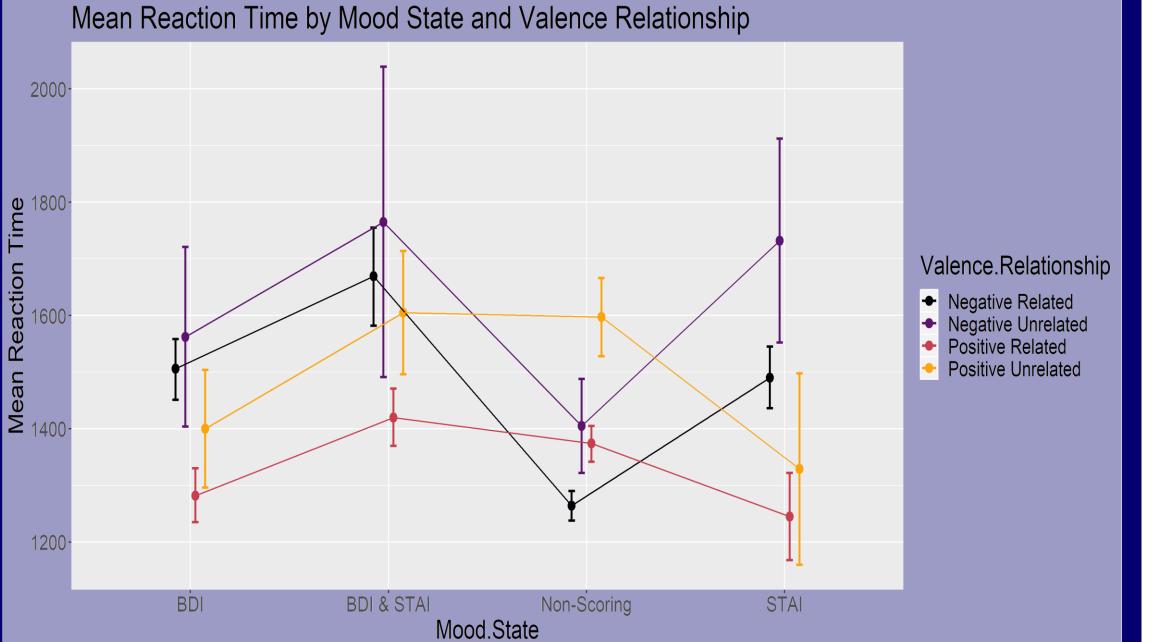


Take a picture for supplementary materials



Participants scoring -> on BDI and/or STAI had especially slow RT's for negative targets

Primed.Satiated



DISCUSSION

- Slower RT's for negative targets may be a result of negative words' increased attention capture [2], impairing disengagement from the target in order to complete subsequent task
- Conversely, the lack of observed satiation for negative emotion-label targets may relate to the salience of negative stimuli, making their meanings more difficult to satiate in the first place [9]
- While neutral targets also elicited slower RT's, this may instead be due to the ambiguity inherent in categorizing their valence, as they are not immediately recognized as positive or negatively valenced
- Compared to tasks commonly used in the semantic satiation literature, the task in the current study resulted in lower accuracy rates, potentially indicating that the present task was exceptionally difficult. This may have obscured expected effects from the IVs.

References

[1] Knickerbocker, H., & Altarriba, J. (2013). Differential repetition blindness with emotion and emotion-laden word types. *Visual Cognition*, *21*(5), 599–627. https://doi.org/10.1080/13506285.2013.815297 [2] Yiend, J. (2010). The effects of emotion on attention: A review of attentional processing of emotional information. In J. De Houwer & D. Hermans (Eds.), *Cognition & Emotion: Reviews of Current Research and Theories* (pp. 211–275). Psychology Press. Retrieved from

https://www.uv.mx/rmipe/files/2017/12/cognition_and_emotion.pdf#page=222

[3] Gendron, M., Lindquist, K. A., Barsalou, L. W., & Feldman Barrett, L. (2012). Emotion words shape emotion precepts. *Emotion*, 70(12), 773–779. https://doi.org/10.1037/a0026007

[4] Smith, L. (1984). Semantic satiation affects category membership decision time but not lexical priming *Memory & Cognition*, 12(5), 483–488. https://doi.org/10.3758/BF03198310

[5] Tian, X., & Huber, D. E. (2010). Testing an associative account of semantic satiation. *Cognitive Psychology* 60(4), 267–290. https://doi.org/10.1016/J.COGPSYCH.2010.01.003

Psychology, 60(4), 267–290. https://doi.org/10.1016/J.COGPSYCH.2010.01.003
[6] Bradley, M. M., & Lang, P. J. (1994). Measuring emotion: The self-assessment manikin and the semantic

differential. Journal of Behavior Therapy and Experimental Psychiatry, 25(1), 49–59. https://doi.org/10.1016/0005-7916(94)90063-9 [7] Beck, A. T., Steer, R. A., & Brown, G. K. (1996). BDI-II, Beck depression inventory: Manual. San Antonio,

Texas: Psychological Corp. Retrieved from https://vufind.carli.illinois.edu/vf-uic/Record/uic_1515646/Cite [8] Spielberger, C. D., Gorsuch, R., & Lushene, R. E. (1970). *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press. Retrieved from https://www.statisticssolutions.com/state-trait-anxiety-inventory-stai/

[9] Sutton, T. M., & Altarriba, J. (2016). Finding the positive in all of the negative: Facilitation for color-related emotion words in a negative priming paradigm. *Acta Psychologica*, 170, 84–93. https://doi.org/10.1016/j.actpsy.2016.06.012