

Lonely individuals idiosyncratically interpret social information from novel narratives



Cosine

Similarity:

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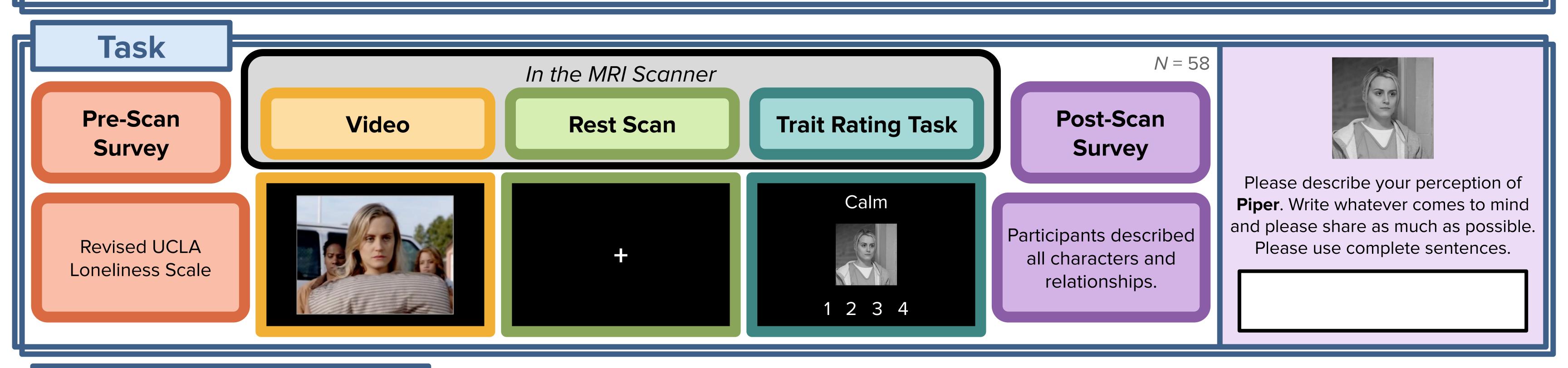
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Introduction

Prior work has shown that lonely people process novel information idiosyncratically in contexts where there is no overarching narrative¹ and also demonstrate idiosyncratic crystallized knowledge of well-known individuals, such as celebrities.²

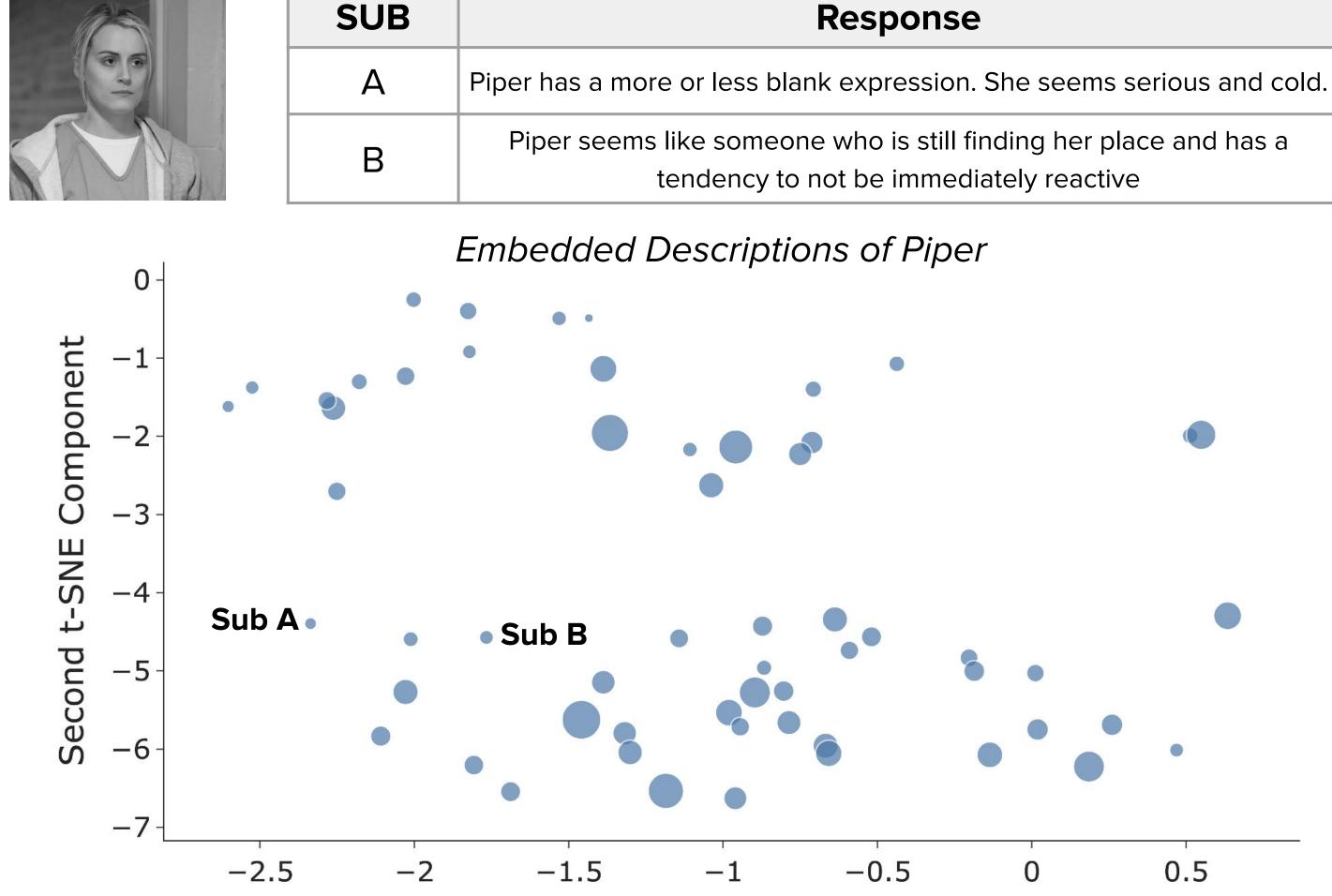
In this project, we asked if similar idiosyncrasy emerges in the learning and memory of new social narratives.

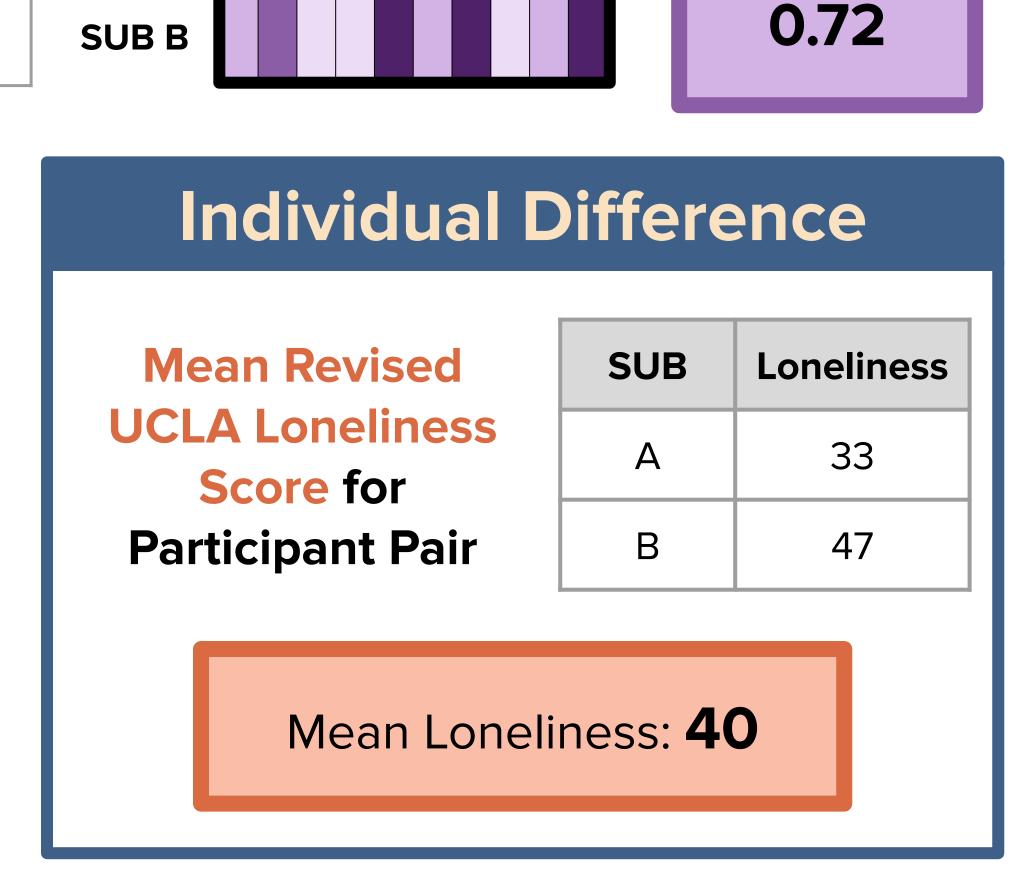
TARGET



Participant Description of Target

Piper is a prison inmate and is trying to get by in that environment while also maintaining her relationship with her husband. She doesn't want to start trouble with the other inmates but she can't completely avoid it. Sentence Embedding Model Embedded Response Vector (Target Representation)





Target Representation

SUB A

Preliminary Results Lonelier people described Lonelier people described relationships characters more idiosyncratically somewhat more idiosyncratically 1.00 1.00 0.75 -0.50 0.50 -0.00 0.00 $\beta = -.20$ $\beta = -.12$ *t*(55)=-3.22 *t*(55)=-1.85 p = .002p = .069Mean Loneliness for Participant Pair (Z-Scored) Mean Loneliness for Participant Pair (Z-Scored)

First t-SNE Component

Discussion & Next Steps

We find that lonelier participants describe characters in a novel social narrative more idiosyncratically than their less lonely counterparts. Further analysis is required to start unraveling what semantic elements of participant free-responses may be driving these results, as well as when in the learning and consolidation process this idiosyncrasy might emerge.



Acknowledgements

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References

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2. Broom, T.W., Iyer, S., Courtney, A.L. et al. Loneliness corresponds with neural representations and language use that deviate from shared cultural perceptions. Commun Psychol 2, 40 (2024). https://doi.org/10.1038/s44271-024-00088-