What are Redemptive Narratives? Stories of challenge, failure or adversity that acknowledge goodness or personal growth that resulted.

Hypotheses

- 1. Redemptive arcs will demonstrate a more positive tone at their end than their beginning.
- 2. Both cognitive and emotional processes play a role in **redemptive narratives**.

Materials

97 Life narratives of difficult events collected by Brady Jones (Jones, 2018). Narratives were hand-coded as redemptive or nonredemptive following McAdams et al. (2001).

Emotional Processing

Redemptive narratives are characterized as stories that turn a negative event into a positive outcome. To measure this arc of valence we used a set of terms frequently employed for sentiment analysis (Hu and Liu, 2004; positive: *easier; ideal; improve*; negative: crisis; debt; pain).

Cognitive Processing

Redemptive narratives are stories that emphasize moral character.

To measure this aspect we relied on Moral Foundations Theory (Haidt & Joseph, 2004) which identifies 5 domains of moral reasoning. We used the Moral Foundations Dictionary to identify relevant terms in each domain (Graham et al., 2009; e.g., care: protection; harm: suffered; loyalty: together; betrayal: *enemy*; Authority: *respect*; Subversion: *protest*)

Cognition and Emotion in Narratives of Redemption: An Automated Analysis

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Method: Measuring Valence in a Narrative

Based on Sagi & Dehghani (2014) Words as vectors in a *semantic space* **Data points**: Sentences in a narrative **Basic measure**: Angle between vectors of sentences and terms from the Moral Foundations Dictionary and sentiment analysis. **Aggregate measure**: The difference between the average of positive valence terms and negative valence terms.

Semantic Spaces

Topicality: Words that occur together likely relate to the same topic.

Based on Infomap. (Takayama et al., 1999; Similar to Latent Semantic Analysis, Deerwester et al., 1990)

The space is based on patterns of *word co-occurrence*.

Results



Redemptive narratives showed more increase than nonredemptive narratives. (p < .005) This difference is due to increased negative valence in non-redemptive narratives, for both cognition and emotion.

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- harmy the red Semantie betrayal/ Space , loyalty

Sample Redemptive Narrative

I think the worst time in my life was while I was doing my master's. I lost my mother a month after I started, and the workload and financial worries added on to make things even worse. Midway into the program, the housing market and Lehman brothers tanked, and I could then look forward to graduating with scads of debt into a job market that would be laying off teachers. This time was horrible because it was so overwhelming. I couldn't really process my thoughts and feelings, I spent a lot of time drinking in front of the TV, zoning out. My hair fell out, I gained weight, and getting to sleep at night was difficult at best. This time tested everything in me; the support of my significant other and my friends was the only thing that kept me going. I think I've become a lot more pessimistic and cynical since then, but also more appreciative.

Sentences are colored coded based on redemptiveness (low indices in red, high in green)

the narrative.

coding? narratives?

References

- American Society for Information Science, 41, 391-407.
- and Social Psychology, 96(5), 1029–1046.
- 55-66.
- Record, 120(9).

- Canada. 155-161.



Results

A Narratives of redemption are characterized by a shift in the valence of the text over the course of

These arcs are characterized by reduced negativity at their end.

Both cognitive (assessment of virtues and vices) and emotional (positive and negative sentiments) combine in these arcs.

Future Studies

Can automated methods be used to assist hand

What specific processes are represented in this

1. Deerwester, S., Dumais, S. T., Furnas, G. W., Landauer, T. K., & Harshman, R. (1990) Indexing by Latent Semantic Analysis. Journal of the 2. Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality*

3. Haidt, J., & Joseph, C. (2004). Intuitive ethics: How innately prepared intuitions generate culturally variable virtues. Daedalus, 133(4),

4. Jones, B. K. (2018). A special kind of ambition: The role of personality in the retention of academically elite teachers. *Teachers College*

5. McAdams, D. P., Reynolds, J., Lewis, M., Patten, A. H., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative and their relation to psychosocial adaptation in midlife adults and in students. *Personality and Social Psychology Bulletin, 27(4),* 474–485.

6. Sagi, E., & Dehghani, M. (2014) Moral Rhetoric in Twitter: A Case Study of the U.S. Federal Shutdown of 2013. In P. Bello, Guarini, M., McShane, M., & Scassellati, B., Proceedings of the 36th Annual Conference of the Cognitive Science Society (pp. 1347-1352).

7. Takayama, Y., Flournoy, R., Kaufmann, S. & Peters, S. (1999) Information retrieval based on domain-specific word associations. In Cercone, N. and Naruedomkul K. (eds.), Proceedings of the Pacific Association for Computational Linguistics (PACLING'99), Waterloo,