How effective are narrative interventions at changing behavior?

Annotated Bibliography

- Batini, F., Luperini, V., Cei, E., Izzo, D., & Toti, G. (2020). The Association Between Reading and Emotional Development: A Systematic Review. *Journal of Education and Training Studies*, *9*(1), 12. https://doi.org/10.11114/jets.v9i1.5053

> *Descriptive annotation:* The review examines a total of 50 studies and concludes that the practice of reading is associated with desirable impacts on people's socio-emotional development. Only three of the studies did not support this finding. However, the authors point out that the overall evidence is too weak to infer causalities. The review's theoretical framework is rooted in "simulation theory", which conceptualizes literature as a simulation of the real world. The review characterizes reading as an interactive process between the reader and the text. The review focuses on reading's effect on "social understandings" (defined as a person's ability to sympathize with someone or the capacity to understand another person's motivations), "empathy", "emotional intelligence" and "theory of mind". The authors conclude that the correlation remains unaffected by variables such as gender, age or specificities of the research setup.

> *Evaluative annotation*: The authors conceptualize empathy as having both an affective and a cognitive component (Junker & Jacquemin, 2017). They base their conception of empathy on Stepien & Bernstein's framework (Stepien & Bernstein, 2006), which views empathy to be an acquired, and hence trainable, skill. Reading interventions such as class readings, bibliotherapy, book clubs etc. positively impact a person's empathetic skills. Therefore, reading interventions could strategically be encouraged: This could evoke the kind of empathy which elicits moral circle expansion or would motivate a longtermist commitment through other mechanisms. It therefore seems plausible to prioritize this paper's findings in my research project.

- Butts, M. M., Lunt, D. C., Freling, T. L., & Gabriel, A. S. (2019). Helping one or helping many? A theoretical integration and meta-analytic review of the compassion fade literature. *Organizational Behavior and Human Decision Processes*, *151*, 16–33. https://doi.org/10.1016/j.obhdp.2018.12.006

Descriptive annotation: Butts et al. examined the phenomenon of "compassion fade" and conducted a meta-analysis of 41 studies. Compassion fade denotes a person's inclination to rather help a single person as opposed to a whole group in need. The authors establish that victim size has a negative effect on both helping intent, helping behavior, a helping agent's anticipated positive affect and their perceived impact.

The analysis suggests that the observed effects do not extend to empathy, which the authors have defined as "other-oriented motivation". This does not seem to decrease in proportion to victim group size.

Evaluative annotation: Given that my project deals with the efficacy of narratives in moral circle expansion, the phenomenon of compassion fade is in so far relevant, as narratives can artificially replicate or actively prevent compassion fade.

- de Graaf, A., Sanders, J., & Hoeken, H. (2016). Characteristics of narrative interventions and health effects: A review of the content, form, and context of narratives in health-related narrative persuasion research. *Review of Communication Research*, *4*, 88–131. https://doi.org/10.12840/issn.2255-4165.2016.04.01.011

Descriptive annotation: The review focuses on the diversity of narrative characteristics applied within "health-related narrative persuasion". In total, 153 studies were examined. The review was motivated by the fact not all narratives seem equally capable of creating "story-consistent" beliefs and promoting healthy behavior. The authors suggest that these differences might have contributed to the contradictory state of research on the effectiveness of narrative interventions in the context of health-related narrative persuasion. It was therefore due to examine the various characteristics of narrative interventions and to identify their "active ingredients".

The review focused on the content, context and form of different narrative interventions. The authors imply i.a. that first-person narratives and highly emotional narratives were

particularly persuasive. Additionally, the display of the desirable behavior seems more persuasive at cultivating said behavior as opposed to the display of the undesirable behavior.

Evaluative annotation: de Graaf et al.'s review does not seem particularly relevant to my research project. Nevertheless, it offers a relevant explanation for the contradictory state of research regarding the efficacy of narrative interventions. It would of course be interesting to reflect on which particular characteristics motivate a longtermist commitment, but this probably falls out of the scope of my project.

- Fadlallah, R., El-Jardali, F., Nomier, M., Hemadi, N., Arif, K., Langlois, E. v., & Akl, E. A. (2019). Using narratives to impact health policy-making: A systematic review. In *Health Research Policy and Systems* (Vol. 17, Issue 1). BioMed Central Ltd. https://doi.org/10.1186/s12961-019-0423-4

Descriptive annotation: Fadlallah et al. summarized 18 studies concerned with the efficacy of narrative interventions within the health policy-making process. According to the authors, the studies do not justify solid conclusions regarding the efficacy of narrative interventions. Nevertheless, the studies suggest that narratives might be used as effective educational and awareness tools. Thus, narratives could effectively evoke policy prioritization. The review also identifies some ethical issues regarding the use of narratives and draws attention to the possibility of undesirable effects. However, such undesirable effects were observed very seldomly.

Evaluative annotation: This review seems quite relevant to my project, as it focuses on narratives' capacity to effect policy change. It might be valuable to draw on a review which examines political behavior as well, in order to compare the effect of narrative interventions on different kinds of behavior. This might be relevant, as health behavior impacts the agent's wellbeing more directly than their political behavior does. It might be due to discuss whether the agent's affectedness by their action influences their sensitivity to narrative persuasion.

- Lazić, A., & Žeželj, I. (2021). A systematic review of narrative interventions: Lessons for countering anti-vaccination conspiracy theories and misinformation. In *Public Understanding of Science* (Vol. 30, Issue 6, pp. 644–670). SAGE Publications Ltd. https://doi.org/10.1177/09636625211011881

    Descriptive annotation: Lazić et al. reviewed 17 studies and 97 comparisons and concluded that corrective pro-vaccine information ought to be complemented by pro-vaccine narratives. They emphasize that anti-vaccination conspiracy theories are rooted in particular worldviews and beliefs: In order to challenge the conspiracy theories, targeted narrative interventions ought to be informed by the associated worldviews and beliefs.

    Evaluative annotation: The review highlights that persuasion and motivation ought to acknowledge a person's worldview and belief system. With regards to longtermism, it therefore seems due to identify the worldviews which contribute to a resistance to longtermism. It might however be problematic to compare vaccine hesitancy with "longtermism hesitancy", as the latter is not rooted in conspiracy theories by default. It therefore has to be clarified whether a set of narratives maintaining "longtermism hesitancy" can be identified at all and whether exposure to counternarratives could effectively challenge them. It also might be useful to examine the link between a person's moral circle, cultural values and worldviews.

- Perrier, M. J., & Martin Ginis, K. A. (2018). Changing health-promoting behaviours through narrative interventions: A systematic review. In *Journal of Health Psychology* (Vol. 23, Issue 11, pp. 1499–1517). SAGE Publications Ltd. https://doi.org/10.1177/1359105316656243

    Descriptive annotation: This review summarizes the literature on the effectiveness of health-related narrative interventions. The authors included 52 studies: In 14 of the studies, narrative interventions did indeed yield a desirable change in health behavior. The authors conclude that narratives seem to be a promising strategy to promote healthy behavior. They further established that different subpopulations respond to narrative interventions differently and that specifically tailored interventions might be warranted. The review also states that more research is due to specify the conditions and characteristics of the narrative interventions.

Evaluative annotation: As the findings suggest that narratives can influence behavior and attitudes, it seems legitimate to investigate whether they can be extended to longtermism as well.

- Perrier, M. J., & Martin Ginis, K. A. (2017). Narrative interventions for health screening behaviours: A systematic review. In *Journal of Health Psychology* (Vol. 22, Issue 3, pp. 375–393). SAGE Publications Ltd. https://doi.org/10.1177/1359105315603463

Descriptive annotation: The review examines 19 different studies, most of which (18/19) deal with preventive cancer screenings. According to Perrier et al., narratives seem to be effective at changing health screening behavior. Interestingly, the authors couldn't identify a clear advantage of narratives over a statistically-based format.
Only one study examined the effect of frequent exposure to narrative interventions. Therefore, the authors argued that more research is required to investigate the optimal frequency, type and duration of a maximally effective narrative intervention.

Evaluative annotation: The review suggests that narrative interventions might not be more effective than statistically-based interventions. However, the review still confirms the overall efficacy of narrative interventions. Given that we face great uncertainty regarding the future and cannot provide accurate fact-based empirical information, it might therefore be more effective to motivate longtermism through narrative interventions.

- Rowe, D. B. (2018). The "Novel" Approach: Using Fiction to Increase Empathy. *Virginia Libraries*, *63*(1). https://doi.org/10.21061/valib.v63i1.1474

Descriptive annotation: This paper does not seem to be a typical systematic review, even though it draws on some past studies. The paper points out that the reading of fiction has been linked to an increase in empathy and mainly describes the mechanisms through which this occurs. These include "transportation", "identification" and "permanent changes in perception".

Evaluative annotation: This paper didn't seem sufficiently systematic (there were no stated inclusion criteria etc.) to be included in the psychological literature review. Maybe a part of it can prove useful for the more conceptual part of my project.

- Schoonover, K. L., Hall-Flavin, D., Whitford, K., Lussier, M., Essary, A., & Lapid, M. I. (2020). Impact of Poetry on Empathy and Professional Burnout of Health-Care Workers: A Systematic Review. In *Journal of Palliative Care* (Vol. 35, Issue 2, pp. 127–132). SAGE Publications Ltd. https://doi.org/10.1177/0825859719865545

Descriptive annotation: The authors reviewed six articles (1 quantitative study measuring empathy / 1 quantitative study measuring empathy and burnout / 3 qualitative studies, 1 research letter) which focused on narrative medicine interventions and the efficacy of poetry to reduce burnout of health-care personnel. The paper suggests that poetry has proven effective at increasing empathy and decreasing professional burnout.
The authors established that there were not sufficient preexisting studies and that their generalizability was rather limited. The latter is due to small sample sizes.

Evaluative annotation: Given that the findings weren't that solid, I will not prioritize these findings in my project. It nevertheless provides some evidence for literature's potential to elicit empathy. This could be especially valuable if I would distinguish between narrative and reading interventions.

Related papers (these aren't systematic reviews but may be useful resources):

Fisher, W. R. (1984). Narration as a human communication paradigm: The case of public moral argument. *Communication Monographs*, *51*(1), 1–22. https://doi.org/10.1080/03637758409390180

Thompson, R., & Haddock, G. (2012). Sometimes stories sell: When are narrative appeals most likely to work? *European Journal of Social Psychology*, *42*(1), 92–102. https://doi.org/10.1002/ejsp.850

Shaffer, V. A., Focella, E. S., Hathaway, A., Scherer, L. D., & Zikmund-Fisher, B. J. (2018). On the Usefulness of Narratives: An Interdisciplinary Review and Theoretical Model. *Annals of Behavioral Medicine*, *52*(5), 429–442. https://doi.org/10.1093/abm/kax008

Shenoy, S., & Roweena B D'couto, D. (n.d.). *Our Heritage Restoration of Altruism, Humanity and Moral Values through Young Adult literature*.

van Laer, T., de Ruyter, K., Visconti, L. M., & Wetzels, M. (2014). The extended transportation-imagery model: A meta-analysis of the antecedents and consequences of consumers' narrative transportation. *Journal of Consumer Research*, *40*(5), 797–817. https://doi.org/10.1086/673383

Zebregs, S., van den Putte, B., Neijens, P., & de Graaf, A. (2015). The Differential Impact of Statistical and Narrative Evidence on Beliefs, Attitude, and Intention: A Meta-Analysis. *Health Communication*, *30*(3), 282–289. https://doi.org/10.1080/10410236.2013.842528

Zhou, C., Occa, A., Kim, S., & Morgan, S. (2020). A Meta-analysis of Narrative Game-based Interventions for Promoting Healthy Behaviors. *Journal of Health Communication*, *25*(1), 54–65. https://doi.org/10.1080/10810730.2019.1701586

Key words used:

- Narrative Interventions (NI), Altruism, Systematic Review (SR)
- NI, Empathy, SR
- Stories, Altruism, SR
- Reading fiction, Empathy, SR
- Reading, Empathy, SR
- Literary Fiction, Altruism
- Narrative Empathy, SR
- Helping Behavior, Reading
- Reading, Altruism