

Interactive comment on “Remember rhythm and rime: Memory and narratives in science communication” by Aquiles Negrete

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Remember rhythm and rime*: Memory and narratives in science communication

*Should this be ‘rhyme’?

GENERAL COMMENTS I enjoyed reading this manuscript which provides a useful historical overview of early work that developed understanding of how humans remember. This is of fundamental importance in science communication. The value of stories in science communication is an area that warrants much more research and this manuscript should encourage that endeavour.

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I have marked up the manuscript pdf with some minor copy edit suggestions.

My main recommendation is to update the manuscript with more current findings. Has anything been done that builds on this historical work? As I am not a cognitive psychologist, I cannot point out specific studies or new concepts, but I would be surprised if equipment that is now available and new research methods and ideas have not been used to elucidate some aspects of memory. For example, is there any work with tracking eye movements to measure engagement with story and then looking at recall? (I have no idea, but it would be interesting, and someone may have done something along these lines.) With all of the work on memory decline in ageing populations, it seems likely there would also be relevant information in neuroscience literature.

As it is, except for a handful of citations from 2000, the only cited references to studies done within the last 20 years are those of the author. Surely there is relevant work in this space. If not, that in itself is noteworthy and should be mentioned.

The list below includes a few references which the author may already have. While some of them may be tangential to the points the author wants to make, they could be used to elaborate the last section about narratives and science communication and would help by including more recent work.

Braund, M., Ahmed, Z., 2018. Drama as physical role-play: actions and outcomes for life science lessons in South Africa. *Journal of Biological Education* 53, 412-421. Cormick, C. (2019). 'Who doesn't love a good story? â What neuroscience tells about how we respond to narratives'. *JCOM* 18 (05), Y01. <https://doi.org/10.22323/2.18050401>. Dahlstrom, M.F., 2012. The Persuasive Influence of Narrative Causality: Psychological Mechanism, Strength in Overcoming Resistance, and Persistence Over Time. *Media Psychology* 15, 303-326.

Dahlstrom, M.F., 2014. Using narratives and storytelling to communicate science with nonexpert audiences. *Proc. Natl. Acad. Sci. U. S. A.* 111 Suppl 4, 13614-13620. Gottschall, J. 2012. *The storytelling animal: How stories make us human*. Houghton

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Mifflin Harcourt. Katz, Y. 2013. Against Storytelling of scientific results. *Nature Methods*. 10: 1045. Martin, K. M., Davis, L. S. and Sandretto, S. (2019). 'Students as storytellers: mobile-filmmaking to improve student engagement in school science'. *JCOM* 18 (05), A04. <https://doi.org/10.22323/2.18050204>. Martin, K. & Miller, E. 1988. Storytelling and science. *Language Arts* Vol. 65, No. 3, *Literary Discourse as a Way of Knowing* pp. 255-259 <https://www.jstor.org/stable/41411379?seq=1> Olson, R. (2015). *Houston, we have a narrative*. Chicago, IL, U.S.A.: University of Chicago Press.

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