Experiential Explanations in Iterated Learning

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Abstract

Explanations can be divided into two categories: those that appeal to general principles (abstractive) and those that tell a concrete story (experiential) (Aronowitz & Lombrozo, 2019). Most psychological research has focused on abstractive explanations, identifying the benefits of abstraction for transfer (Ratterman, Genter & DeLoache, 1987;1989), prediction (Pacer & Lombrozo, 2017), and even cooperation (Burgoon, Henders & Markman, 2013). So why do we sometimes explain in a less abstract, more narrative mode? Study 1 (N = 195) and Study 2 (N = 843) explore scientific explanations and find that abstractive and experiential explanations (matched for quality) are transmitted along a chain of people with comparable fidelity. However, over repeated transmission, experiential explanations become significantly more abstract - whereas abstractive explanations do not drift. Study 3 turns from science to human behavior to test the hypothesis that experiential explanations have mnemonic and other cognitive advantages in more narrative domains.