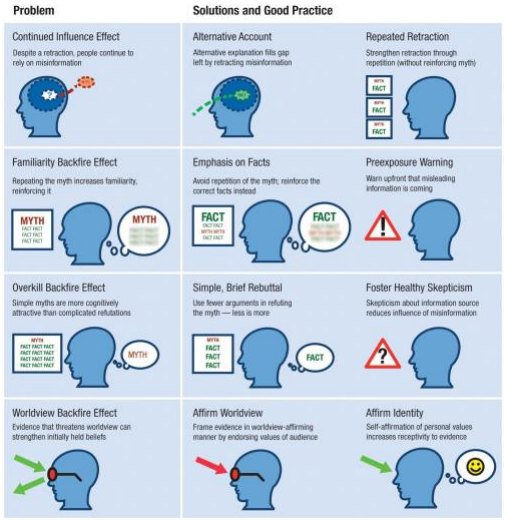
Fact-Based Inoculations

Fact-based inoculations directly address the factual inaccuracies at the heart of misinformation, explaining what is incorrect, and providing accurate information to counter falsehoods. By preemptively clarifying misconceptions, individuals are equipped with factual knowledge that can resist future encounters with similar misinformation. Fact-based inoculations in the classroom can help students understand the characteristics of good science. Students hold a variety of science misconceptions, and addressing them directly can increase their engagement and teach them how to recognize other misinformation.[1]

Applications

- Identify **misconceptions** in a subject area and use them as the basis for a lesson where each is addressed with a factual correction, supported by evidence and research.
- Have students **compare** fact-based inoculation and technique-based inoculation. Which do they think is more effective, and why?
- Ask students to **make fact-based** inoculations. This could be for misinformation of their choosing or pre-assigned misinformation.



Lewandowsky et al 2012[2]

Notes

Fact-based inoculations naturally occur in education as it's common to reference a debunked explanation for something when presenting the factual explanation, especially in science classes. For example, when teaching about the solar system, the disproven geocentric model is often referenced. In any given subject, referencing a disproven model or false information and explaining why it is incorrect in light of what is understood to be true can deepen a student's understanding of a topic and help them become a more critical thinker. It's important, however, to avoid "backfire" and "continued influence" effects by emphasizing the correct information.[2]

Learn More

NewsGuard's Reality Check on Substack and the New Literacy Project's RumorGuard are two fantastic sources of fact-based inoculations to the latest misinformation.

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[1] Journal of College Science Teaching, Combining Different Inoculation Types to Increase Student Engagement and Build Resilience Against Science Misinformation

[2] Psychological Science in the Public Interest, Misinformation and Its Correction: Continued Influence and Successful Debiasing