Vitamins & Flu Shots in Science Communication

John Cook
National Centre for Science Education webinar
29 May 014
Inoculation Theory
Vitamins

- Explain the science
- Healthier understanding of the science
Vitamins
- Explain the science
- Healthier understanding of the science

Flu Shot
- Explain how the science is distorted
- Builds immunity to misinformation
“It is not so much the fanaticism of the small minority of active deniers that concerns us, but the vulnerability of the majority to their influence.”

CLIVE HAMILTON
5 characteristics of science denial

1. **Fake Debate**
2. **Logical Fallacies**
3. **Impossible Standards**
4. **Cherry Picking**
5. **Conspiracy Theories**
Example: 97% scientific consensus

97 out of 100 climate experts agree humans are causing global warming

Doran et al 2009, Anderegg et al 2010  
http://sks.to/consensus
What happens when people watch this?
What happens when people watch this?

Climate scientist
What happens when people watch this?

Climate scientist

Unqualified non-expert
What happens when people watch this?

Climate scientist

Unqualified non-expert
Last Week Tonight with John Oliver (HBO): Climate Change De...
Quantifying the consensus on anthropogenic global warming in the scientific literature

Abstract
We analyze the evolution of the scientific consensus on anthropogenic global warming (AGW) in the peer-reviewed scientific literature. "97.1% endorsed the... position that humans are causing global warming."
LAST WEEK TONIGHT
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F
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L
Logical Fallacies

I
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C
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