Surviving Political Shifts With the Aid of Science
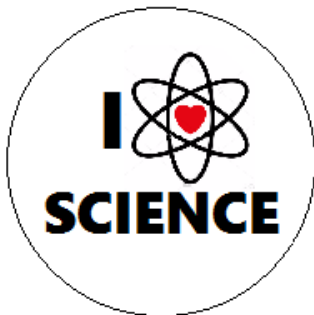
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August 24, 2017

Outline

- Intro - Science and Pseudoscience
- Insight from Social Sciences
- Insight from Physical Sciences
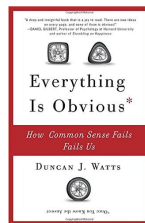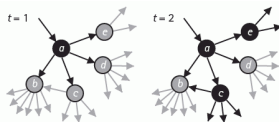- Conclusion - Stay Sane and Stay Strong!

Science and Pseudoscience

- **Science:** critical thinking and logic applied to empirical evidence
- **Pseudoscience:** making statements claimed to be scientific and factual without rational justification

Granovetter's Riot Model
In the presence of social influence, collective outcomes are not easily intuited from the individual attributes of the population itself.

- *Threshold Models of Social Influence*
  Christopher Winship
  The Oxford Handbook of Analytical Sociology

- *Everything is Obvious (Once You Know the Answer)* by Duncan Watts

The Power of a Positive Message
positive ads proved more effective in increasing both the sponsoring candidates favorability and participants reported likelihood of voting for him

- Gregory, P. A. (2015). "Comparing the Effectiveness of Positive and Negative Political Campaigns." *Inquiries Journal/Student Pulse, 7(11).*
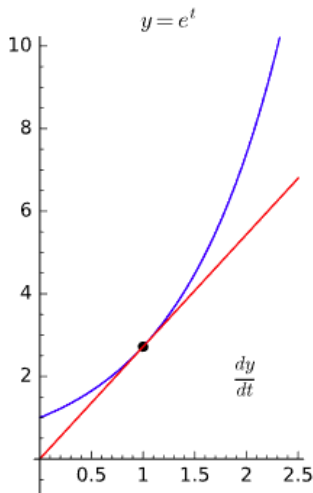- Sustainable Development Goals
  `https://sustainabledevelopment.un.org/sdgs`

Physical Sciences - 1

Flocking Behavior modeled by three simple rules:

- Separation - avoid crowding neighbors (short range repulsion)
- Alignment - steer towards average heading of neighbors
- Cohesion - steer towards average position of neighbors (long range attraction)

- Strogatz, Steven H. (Steven Henry), author. Nonlinear Dynamics and Chaos ... Boulder, CO :Westview Press
- TED Talk: The Science of Sync, by Steven Strogatz
  https://www.ted.com/talks/steven_strogatz_on_sync

The (Ubiquitous) Viral Growth Curve

$$y = e^t$$

$$\frac{dy}{dt} = e^t$$

and

$$\frac{dy}{dt} = y$$

Rate of growth of y depends solely
on the amount of y.
Nothing else is limiting y.

Stay Sane and Stay Strong!

Share the joyous adventure of science
... continued ...

Saturday, October 28
10:30 a.m. - noon
Palatine Public Library
Facebook: March for Science - Palatine
`http://www.darkmatterday.com/`