

Crafting with Data

Reality, Illusions, Truth & the Future

Instructor: Rob Faludi

Plan for Today

- Documentation
- Placebos
- Discuss readings
- Present data gathered
- Exercise One: Mastermind
- Readings & Assignments

Documentation Links

we've been talking...
and we all think
it's time you updated
your blog



Placebos

- The mighty placebo effect

To the alarm of the big pharmaceutical companies, the placebo effect appears to be getting stronger. The reasons are many and interesting.

It's not only trials of new drugs that are crossing the futility boundary. Some products that have been on the market for decades, like Prozac, are faltering in more recent follow-up tests. In many cases, these are the compounds that, in the late '90s, made Big Pharma more profitable than Big Oil. But if these same drugs were vetted now, the FDA might not approve some of them. Two comprehensive analyses of antidepressant trials have uncovered a dramatic increase in placebo response since the 1980s. One estimated that the so-called effect size (a measure of statistical significance) in placebo groups had nearly doubled over that time.

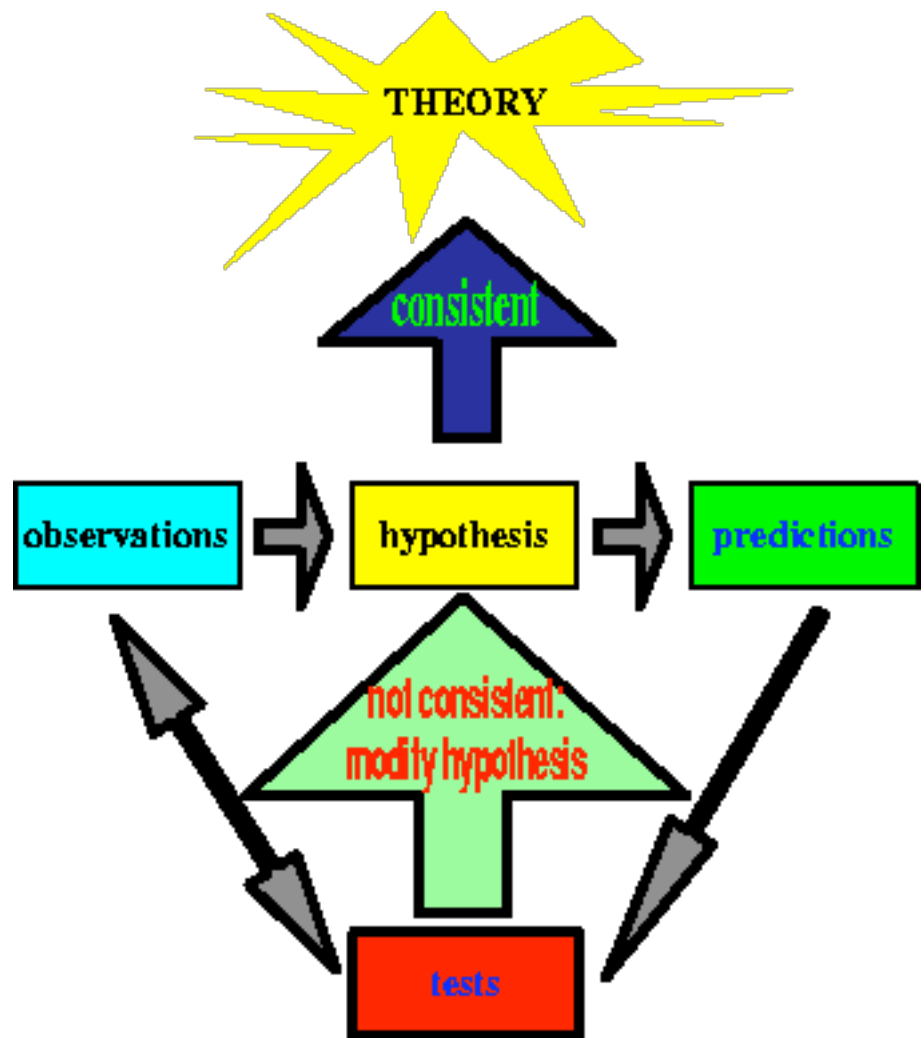
By Jason Kottke • Sep 21, 2009 at 01:14 pm • drugs science

- <http://kottke.org/09/09/the-mighty-placebo-effect>

Scientific Method

1. Observation
2. Hypothesis
3. Predictions
4. Experimental Testing
5. ...repeat as necessary

- results can be replicated
- hypotheses can be falsified

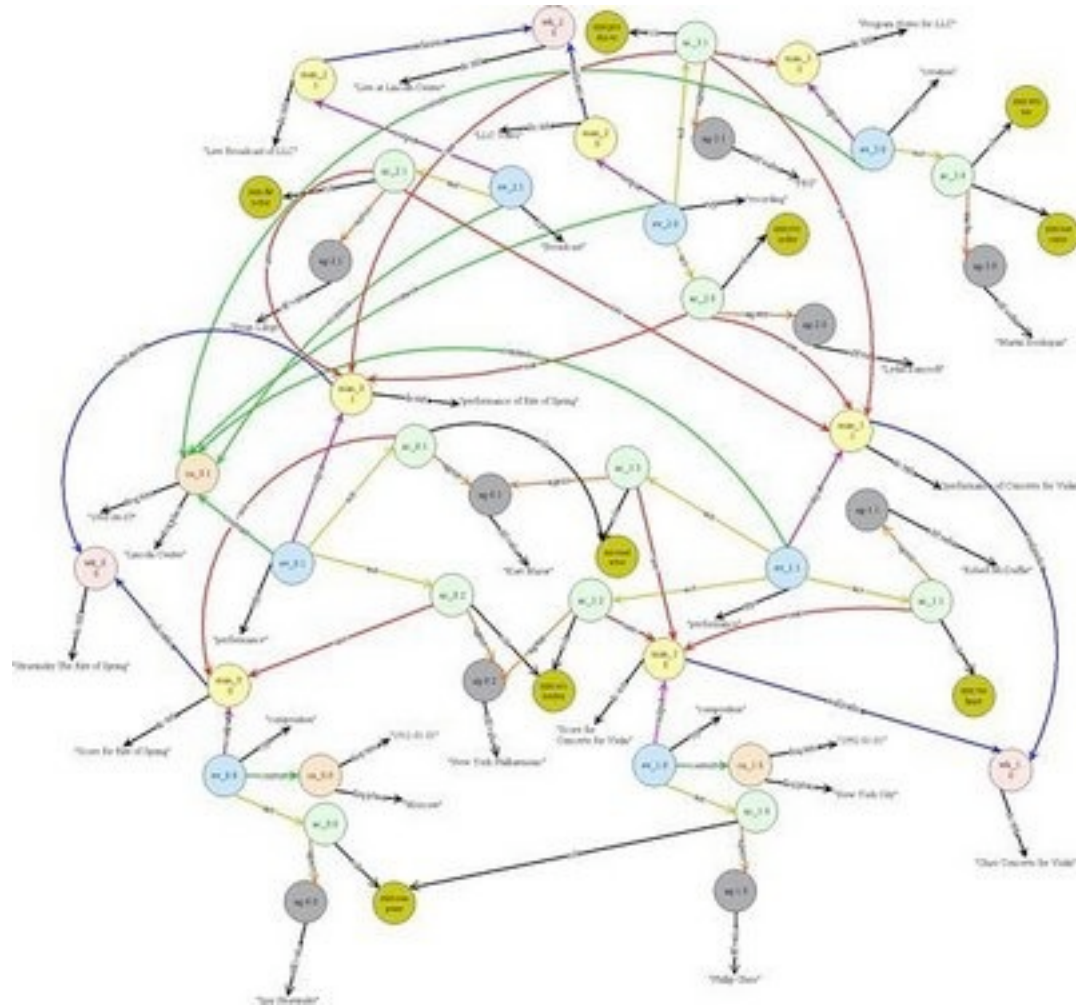


Scientific Method...also

- document your methods
- randomize your sample
- try some pilot studies
- get some experts to review your work
- get some peers to review your findings
- disclose your methods
- share your critical thinking about projects (but never people)

There's more

- Reading
- Discussion
- Fantasies
- Procrastination
- Confusion
- Dejection
- Excuses
- Paranoia
- Excitement
- Overcommitment
- Elation
- Debate
- Boredom
- Construction
- Selling
- Resolution



Arduino Data Gathering

- Reports from each group
 - What data did you choose? Observations, hypotheses.
 - How did you gather? Methods.
 - Show us your data and discuss your reactions.
 - Findings?



Readings and Assignments

- Readings

- Nicholas Feltron's Web site: www.feltron.com

- Assignments

- Self-Portrait: Data is factual information; science finds its story. But data isn't only about science so we can turn that on its head. Find data for your own story. Create a self-portrait, using data.
- Re-do data gathering assignment. Another iteration with improvements.