

Evidence (Part 2) and Eyewitness Testimony (Part 1)

Supplementary Material for CFB3333/PHY3333
Professors John Cotton and Stephen Sekula
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Based on the following information on the web:

<http://www.physics.smu.edu/pseudo/Pscience>
<http://www.physics.smu.edu/pseudo/Eyewitness>

Properties of Pseudoscience

- Heavy reliance on testimonials or anecdotal evidence.
 - Fred or Jason - from Consumer Reports
 - Robin? - from Consumer Reports
- Built-in or ad-hoc excuses for failure.
- Non-falsifiable hypotheses.
- No serious attempt to disprove it.
- Attacks existing explanations without offering anything new.
- Patents cited as evidence.
- Evidence is used selectively; some is ignored, particularly that evidence which might disprove the hypothesis ("cherry picking").
- Misrepresentation of real scientific work.
- Claims of "It can't be _____, so it isn't."
- Makes no progress and generates no new knowledge, even over many decades.
- Claims of effects or forces never measured, or even observed.
- Claims of impossible precision of measurement.
- Makes no useful predictions.
- Tests that have VERY small samples.
- ...

Look at the list of forms of
bad and good evidence available here:

<http://www.physics.smu.edu/pseudo/Pscience/>

Testimonials and Anecdotes

HAIRBLAST!

(PATENT PENDING)

BEFORE HAIRBLAST
(I kan haz none date!)

AFTER HAIRBLAST
(Alice iz in Wonderland!)



Confusing Correlation and Causation

Example: The Stock Market and the NY Mets

Eyewitness Testimony:
use the website:

<http://www.physics.smu.edu/pseudo/Eyewitness>