

The Rhetoric of Science

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What is rhetoric?

What is rhetoric?

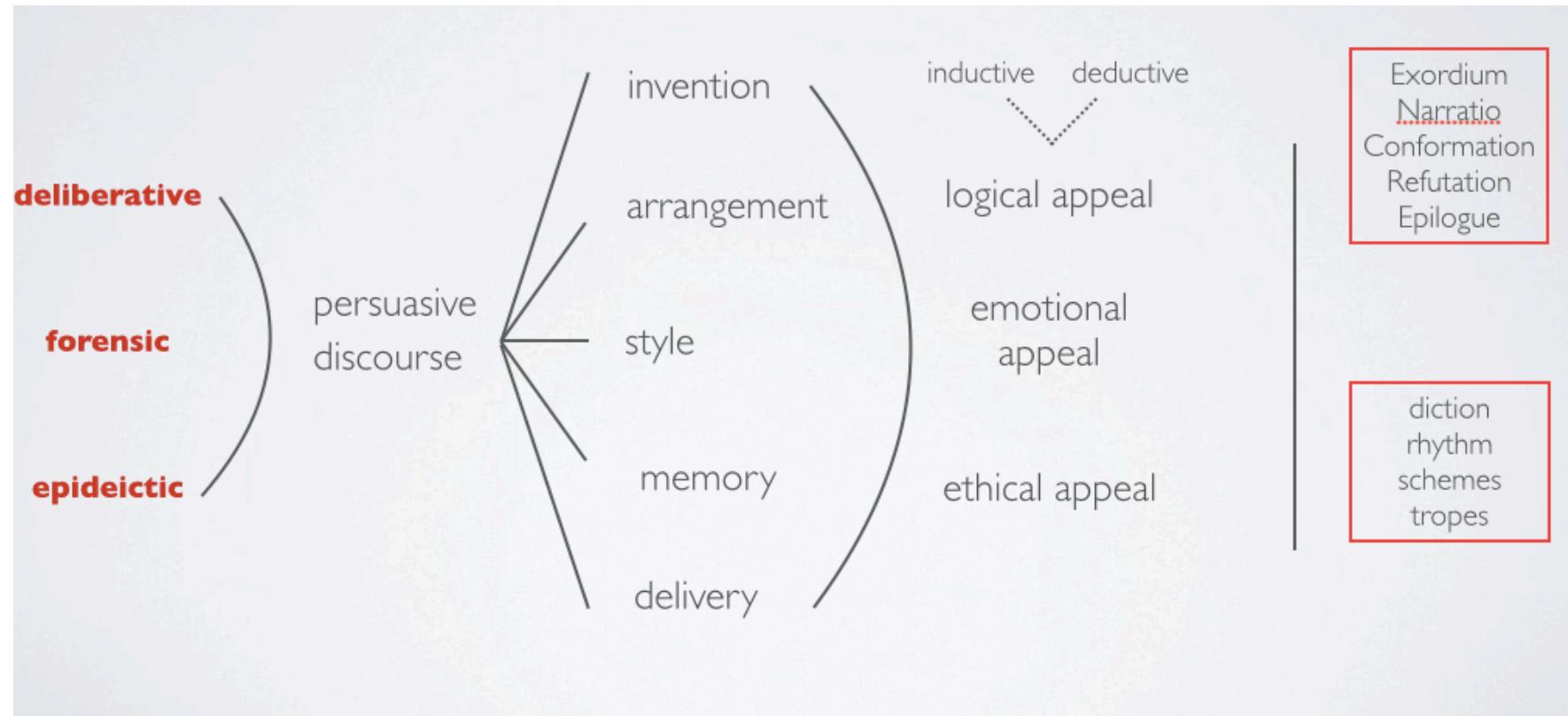
“The **art** of using language effectively so as to persuade or influence others”

The **analysis** of language as a means of persuasion.

Aristotle's Rhetoric

- Aristotle:
384 – 322 BCE
- “Classical Rhetoric”
- Dealing primarily with persuasive oratory
 - Deliberative (of public assembly)
 - Forensic (of the courtroom)
 - Epideictic (of public occasions)

Aristotelian Schemata



“The dreariest and least profitable part of the waste that the unfortunate travel through in freshman English”

- I. A. Richards

“A survey of the history of rhetoric does indeed reveal that this discipline, which was very much alive and which engaged the attention and talents of some of the best minds, has for a number of years been moribund, if not door-nail dead.”

- Edward P.J. Corbett

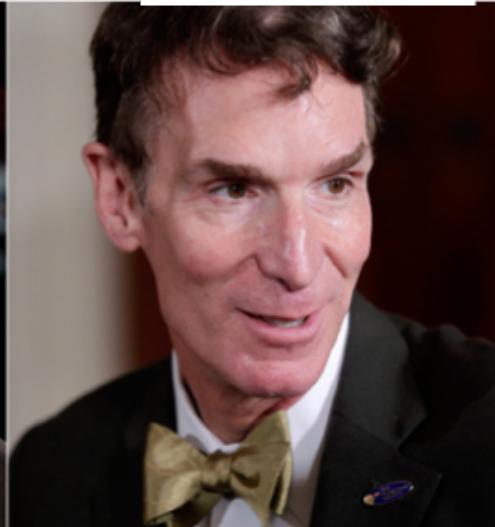


POLITICS





JOURNALISM

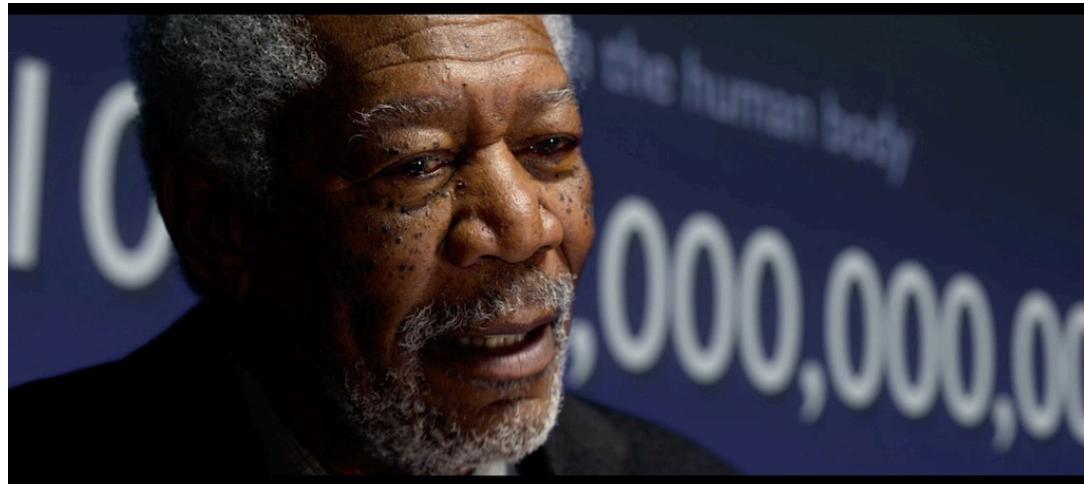


What is science?

What is science?

A branch of study that deals with a connected body of demonstrated truths or with observed facts systematically classified and more or less comprehended by general laws, and incorporating trustworthy methods (now esp. those involving the scientific method and which incorporate falsifiable hypotheses) for the discovery of new truth in its own domain.

Is neuroscience science? Is it true?



Is ‘computer science’ science? Is it true?



Is archaeology science?
Is it true?



When is science “true”?

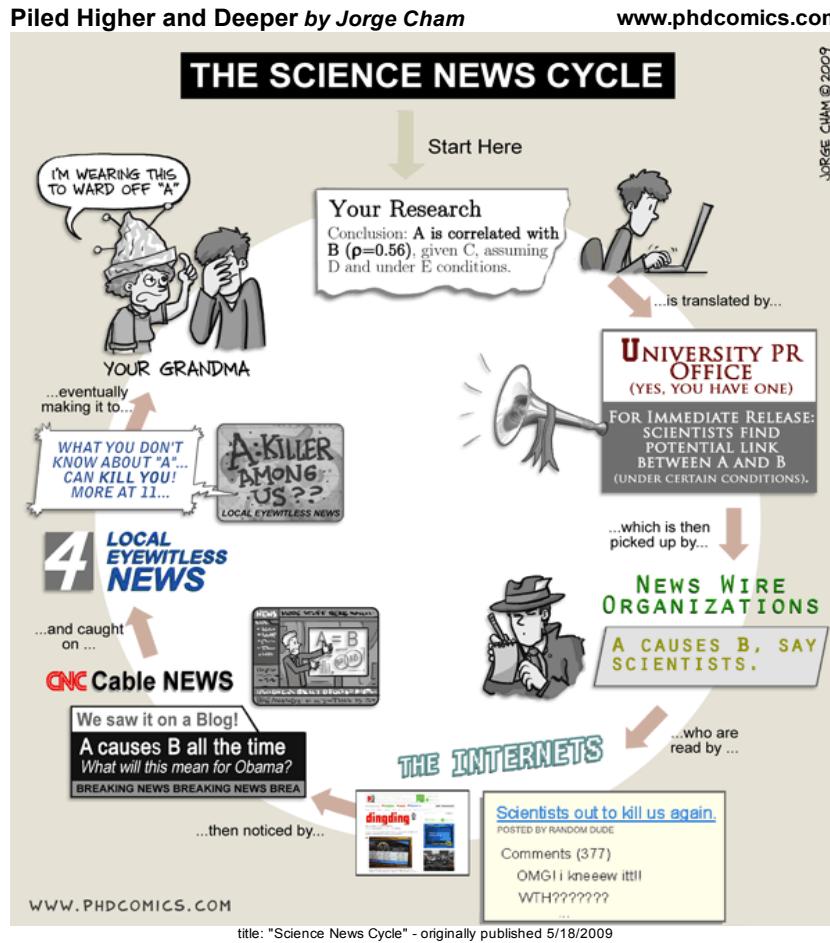
Can things be true that
are not science?

The Rhetoric of Science Paradox

Does science have a rhetoric?



Problems in Science Writing



Problems in Science Writing

Dear News Media,

When reporting poll results, please keep in mind the following suggestions:

1. If two poll numbers differ by less than the margin of error, it's not a news story.
2. Scientific facts are not determined by public opinion polls.
3. A poll taken of your viewers/internet users is not a scientific poll.
4. What if all polls included the option "Don't care"?

Signed,
-Someone who took a basic statistics course.

WWW.PHDCOMICS.COM

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Problems in Science Writing

“What headlines would look like if we lived in a mathematically literate world”

- Our World: Market Rebounds after Assurances from Fed Chair

Mathematically Literate World: Market Rebounds after Regression to the Mean

- Our World: Firm's Meteoric Rise Explained by Daring Strategy, Bold Leadership

Mathematically Literate World: Firm's Meteoric Rise Explained by Good Luck, Selection Bias

- Our World: Psychologists Tout Surprising New Findings

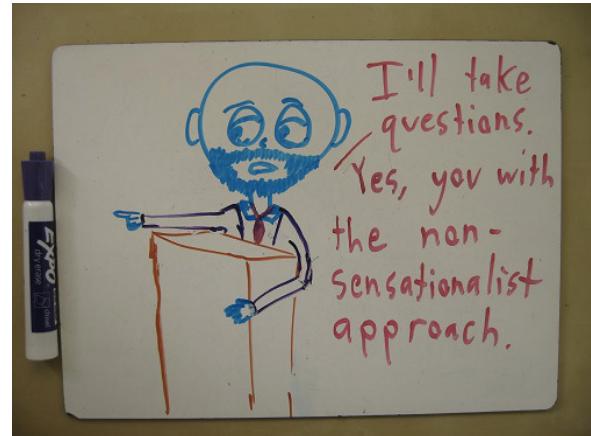
Mathematically Literate World: Psychologists Promise to Replicate Surprising New Findings Before Touting Them

- Our World: After Switch in Standardized Tests, Scores Drop

Mathematically Literate World: After Switch in Standardized Tests, Scores No Longer Directly Comparable

- Our World: Local Heat Wave Seen as Sign of Global Warming

Mathematically Literate World: Local Heat Wave Not Seen as Meaningful Indicator of Global Trends



What is the rhetoric of science?

1. The analysis of the methods that scientists use to persuade their audience.
2. The analysis of the ways that science is used as a tool in persuasive writing.
3. The skill of writing honestly and persuasively about science.

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Syllabus Review

- Office Hours: please come
- Textbooks: not required
- Late work:
 - One day: 5%
 - Two days: 30%
 - Each additional day: +10%
 - More than five days: 0
- Attendance:
 - Required: failure after 4 absences.
- Plagiarism: don't do it
- Disabilities: talk to me, please.

Major Assignments

- Analytic Essay: 20%
 - Essay 1.1: 10%
 - Essay 1.2: 10%
- Scientific Interview: 20%
 - Report: 10%
 - Profile: 10%
- Portfolio Drafts: 20%
 - Blog Post
 - Op-Ed
 - Feature Article
- Final Portfolio: 20%
- Research Summaries: 10%
- Presentations: 10%

Rhetoric 309k

Contract

The RHE309k Website

www.halperta.com/rhe309k-fall2014

canvas.utexas.edu