

# **Reason, Rhetoric & Science:**

**A New Approach to Teaching Argument,  
via a Critical Analysis of *Writing Arguments***

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# *Writing Arguments: A Rhetoric with Readings*

- Some Merit
  - presents a rigorous form of argumentation that is ideally suited to train university students to critically analyze texts and rhetorically construct argument essays

# *Writing Arguments: A Rhetoric with Readings*

- Deeply Flawed
  - Poorly conceived
    - NO coherent definition of, or process for, argument, critical thinking, or scientific methods for data creation and analysis
    - NO coherent conceptual framework
  - Bad model readings
  - Poorly organized

# (1) No Expertise on Subject

- Authors have background in literature and rhetoric.
- Textbook displays an ignorance of history of science, scientific methods, and scientific reasoning.
- No conceptual framework

## (2) Poor Sample Readings

- Most demonstrate poor reasoning and non-scientific methods.
- Mostly newspaper and magazine articles (bad sources of information).
- Few discuss data collection, data analysis, or data validity.
- Most clearly biased, offer little valid data, and have seriously flawed conclusions.

## (3) What is an Argument?

- Text claims "no universally accepted definition of argument" (p. 2)
- **BUT NO CONCEPTUAL FRAMEWORK**
  - Standard definition: "attempt to supply reasons and evidence to support claims" (p. 10)
  - Purpose: "truth" (13) & "persuasion" (13, 63, 98).
  - Process (pp. 12, 24)
  - Product (p. 12, 74-81)
  - Furthermore: Stephen Toulmin's theory (pp. 74-81)

## (4) Attain Truth?

- Text claims: argument purpose to attain "truth" (p. 13)
- BUT NO CONCEPTUAL FRAMEWORK
  - No explanation of contested meaning of truth.
  - Confused, shallow, brief, and misleading concept of truth
  - Truth connected without explanation to "values" (pp. 15-16)
  - Concepts of "pluralism" and "relativism" used without definition or contextualization.
  - Text discusses "controversy" in argument (p. 64), but fails to link this concept to the concepts of truth, values, and pluralism
  - Text discusses conflict of values via "assumptions" and warrants (pp. 66, 292): conceptually shallow and confused
  - No justification that arguments need to be persuasive to particular audiences (pp. 84, 297)

## (5) Argument Genres?

- Argument genres are NOT modes of argument (pp. 33-35), but instead logical forms for *proving truth of claims*
  - Proving claim
    - Toulmin (p. 77) mid-level form
    - Genres (pp. 33-35) micro-level form
  - Organizing essay
    - Classical structure of argument (p. 61)

## (6) What are ethical arguments?

- NOT same as evaluation arguments
  - although categorical evaluations can be used in some forms of ethical argument, but so can many other forms of reasoning
- Definition of ethical claims confused
  - Need to be linked to Toulmin "warrants" and "backing"
  - Need to be clearly defined; connected to moral philosophy

# What are ethical arguments?

- Ideal value of "good"
  - moral/ethical principle or rule (Ideal reasoning)
- Practical value of "right"
  - Using value of "good" to determine "right" action or "right" outcomes/consequences (Practical reasoning)

## (7) Fairness & Justice in Arguments

- Briefly touches on this principle via Rogerian arguments (pp. 138-39) and dialogic arguments (pp. 45-49; 124)
- Uses this unstated principle with the "believing and doubting game" (p. 30) and responding to objections and alternative views (ch 7).

# Fairness & Justice in Arguments

- NO developed and clear discussion of the ends of argument and the principles of fair and valid arguments
- NO clear principle for why people should argue fairly
- NO concept about why people should argue at all, i.e. what is the ultimate purpose of argument.

## (8) What is Evidence?

- Not all major types of evidence discussed
- NO explain why certain types of evidence are better than other types
- NO epistemology or scientific methodology
- Misleading: evidence is "gathered" (p. 101) rather than constructed via scientific methodology

# What is Evidence?

- NO explanation of HOW evidence is constructed and HOW the construction of evidence leads to its validity (NO explanation of "validity")
- Quantitative data is reduced to "graphics" (p. 191) that tell "stories" (p. 101).
- Text misleadingly creates the impression that quantitative graphics are MAGIC evidence that quickly prove points.

# Conceptually Confused

- Students NOT given the conceptual tools to critically analyze data and inductive conclusions based on data
- Students NOT given conceptual tools to reach valid claims
- Students NOT given clear concept of or process for argument

# A NEW Approach to Teaching Argument, Critical Thinking & Rhetoric

1. Historicize epistemology
  - A. Pre-scientific ways of knowing
  - B. The development of reason
    1. Systematic reasoning (philosophy)
    2. Empirical & experimental methodology (science)
2. Conceptualize science, scientific methods, and the ends of science
3. Conceptualize the limitations of science and scientific methods
4. Conceptualize the form and ends of argumentation for the academy, public policy, and the broader society
  - A. Form of argumentation (Toulmin, 1958; Toulmin, 2001; Fish, 1994)
  - B. Ends of argumentation (Dewey, 1916; Dahl, 1998; Sen, 2005).
    1. Academic argument
    2. Public policy argument
    3. Argument for democracy

PDF of Slideshow at

<http://www.jmbeach.com/>

Conceptual framework discussed in my new book

*On Education and Enlightenment:  
An Inquiry into Education  
and the Human Condition* [forthcoming]

*Most chapters published on my blog*

<http://jmbeach.blogspot.com/>