

# Assignment

## Ethics of a Scientific Dilemma Final Project: Group Debate

US275 Scientific Ethics  
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## Famous Debates

- Lincoln-Douglas Debates
  - 1858 Illinois senatorial campaign
  - Abraham Lincoln (Republican)
  - Stephen A. Douglas (Democrat)



*Abraham Lincoln and Stephen A Douglas debating at Charleston.  
Robert Marshall Root, 1918*

## Final Project

**Final Project = 21% of course grade**

- Selection of Topic
- Due
  - drafts
  - final



*"Science cannot resolve moral conflicts, but it can help to more accurately frame the debates about those conflicts."*

~ Heinz Pagels

# Types of Scientific Controversies

1. Falsifiable propositions
2. Incommensurable arguments
3. Ethical Dilemmas



*Two Scholars Debating,*  
Rembrandt van Rijn, 1628

## Falsifiable Propositions

- Conflict between scientific paradigms
  - must be resolved with further experimentation and hypothesis testing
- These types of controversies will not be addressed in this assignment.



*An Experiment on a Bird in an Air Pump*  
Joseph Wright, 1768

## Incommensurable Arguments

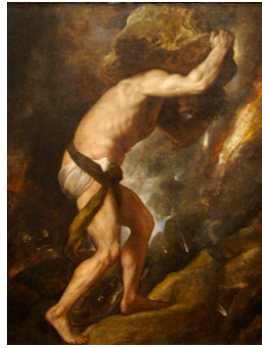
- Comparison between dissimilar things
  - comparing science to non-science
- These types of controversies will not be addressed in this assignment.



*Apples and Oranges*  
Paul Cezanne, 1899

# Ethical Dilemmas

- Conflicts between moral imperatives,
  - not whether or not something is possible
  - “Should \_\_\_\_\_ be allowed”
- These types of controversies will be addressed in the Scientific Ethics debate assignment.



Sisifo (Sisyphus)  
Titian, 1548

# Famous Scientific Debates

- Scopes Monkey Trial
- John Scopes
  - high school science teacher
  - violated Tennessee’s Butler Act by teaching evolution
  - defended by Clarence Darrow
- State of Tennessee
  - prosecuted by William Jennings Bryant



[2] The Modern Crusader. (From the Plain Dealer, Cleveland, Ohio)

Political cartoon depicting W. J. Bryan, 1925

# Topic Selection

- Criteria
  - scientific topic with an associated ethical controversy
  - Resolution
    - **“Something that is scientifically possible should be allowed”**
  - members of the team will argue from opposing viewpoints
  - Sign up in discussion thread
- Topic Selection (1 point)



Socrates Teaching Pericles  
Nicolas Guibal, 1780

# Scientific Background

- Explain the scientific issues involved so that the audience (your classmates) understand the topic
- Draft (1 point)
- Final (3 points)



*Webster Replying to Hayne*  
Webster-Hayne debate over protective tariffs  
George P.A. Healy, 1830

# First constructive Dialogue

- Proponents and Opponents to the resolution will prepare debate briefs supporting their viewpoint.
- Draft (1 point)
- Final (3 points)



*Abraham Lincoln and Stephen A. Douglas debating at Charleston.*  
Robert Marshall Root, 1918

# Second constructive Dialogue

- Proponents and Opponents to the resolution will prepare a second set of debate briefs providing further support of their viewpoint.
- Draft (1 point)
- Final (3 points)



*Jewish Scholars Debating*  
Josef Johann Suss (1857 - 1937)

# Rebuttal & Closing Statement

- Proponents and Opponents to the resolution will prepare a short response (rebuttal) to the opposing sides arguments and then end with a final closing statement.
- Draft (1 point)
- Final (3 points)



*The Debate over the Trinity*  
Andrea del Sarto (1486 - 1530)

# Individual Contributions to Group Project

- Evaluate each individual,
  - contribute ideas for assignment
  - communicated effectively and timely with other group members.
  - contributed their fair share to the group effort
- For each assignment,
  - each member of group scored from 0 - 9



# Individual comments on the other debates

- Each individual will
  - reach all of the debate postings
  - indicate whether they support or reject the resolution
  - explain why they made their decision
- Grading (4 points)



*Captain Smollett and Long John Silver debating*  
George Roux, 1885

# Rules of conduct

- Stay on topic
  - don't introduce irrelevant points
- Don't get emotional
  - this is a learning exercise to cause reflection on alternative viewpoints around these topics.
- Don't attack your opponents
  - argue against their position



Isaac Cruikshank, Debating Society (Substitute for Hair Powder), London: Published by Laurie & Whittle, May 5, 1795. Etching and engraving., 1795

# Readings

US275: Scientific Ethics Debate  
Instructions



*A Theological Debate*  
Eduard Frankfort, 1888

# Any Questions?

Email me at:  
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