

Undergraduate Research Symposium May 18, 2018 Mary Gates Hall

Online Proceedings

SESSION 1F

DELIBERATION, CREDIBILITY, AND THE RHETORIC OF SCIENCE

Session Moderator: Leah Ceccarelli, Communication

MGH 234

12:30 PM to 2:15 PM

* Note: Titles in order of presentation.

Rhetoric to Ignite Controversy

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UW Honors Program*

Mentor: Leah Ceccarelli, Communication

Conservation is a pressing and widely discussed topic. There are many people and organizations involved in the issue, meaning there are many different perspectives and opinions. In his paper "Conservation in the Anthropocene," Peter Kareiva presents controversial ideas about modern day conservation. Based on my rhetorical analysis of his paper, I argue that he takes advantage of the controversy by presenting his ideas in a purposefully more provocative way than he needs to. In this paper we see him attacking conservation icons and ideals as well as putting forward arguments against currently held ideas in the conservation movement and directly attacking traditional environmentalists. This enrages much of his audience, and through that controversy he brings more attention to his paper and his ideas. This paper analyzes how he uses rhetoric to emphasize the controversial aspect of the ideas he presents in this paper to attract more attention to his argument and to open up a discussion about the issues he presents.

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Theodosius Dobzhansky: A Rhetorical Analysis of the Theistic Evolutionary Synthesis

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Mentor: Leah Ceccarelli, Communication

Theodosius Dobzhansky was a prominent 20th century scientist, who proved to be an eloquent rhetor, catalyzing the interdisciplinary synthesis of modern theories of evolution by bridging the great divide between Mendelian and Darwinian schools of thought. In March 1973, The American Biology Teacher published his essay "Nothing in Biology Makes Sense Except in the Light of Evolution." This sentence has become the memorable line from the essay, often used anecdotally against religion and in support of evolutionary theories by the scientific community. However, this use directly contradicts Dobzhansky's goal of persuading readers that science and religion aren't mutually exclusive, through arguing for evolution as proof of God's greatness, attempting to unite these two disciplines. Theories of evolution have long been tied to and in confrontation with religion. This contention prevails today; in 2017 alone multiple bills were introduced into the U.S. House lobbying for equal time spent teaching both evolution and creationism in public schools. I argue that Dobzhansky's rhetorical eloquence allows him to appeal to two audiences. Through the use of prolepsis, anecdotes, and devoutness to God he is able to address his religious audience while simultaneously giving educators persuasive tools for teaching evolution in a religious context. Going forward, we can pull from Dobzhansky's rhetorical strategies to facilitate productive conversations between polarized schools of thought, such as seen today in the American political climate.

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The Evolution of Public Rhetoric on Science: From One Cosmos to Another

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UW Honors Program

Mentor: Leah Ceccarelli, Communication

Cosmos was a widely popular TV show that presented science to general audiences in the United States. It first aired in 1980 as *Cosmos: A Personal Voyage*, with famed astrophysicist Carl Sagan spearheading the making of the show, hosting it and becoming one of the most popular scientific spokesmen in the late 20th century. The show was redone in 2014 as *Cosmos: A Spacetime Odyssey*, hosted by Neil deGrasse Tyson. The revival season featured mostly the same subject matter as the original and had some of the same writers and producers, so the differences in presentation are mostly due to new scientific discoveries and new public perspectives towards science. While many rhetoricians of science have analyzed the shows, no comparison has been performed to see how rhetoric in public science presentations has changed over time. In this presentation, I will analyze corresponding episodes of *Cosmos*, one from each season, to determine how the presentation of scientific topics has changed for the better and to rediscover past rhetorical strategies which could be employed once again in contemporary scientific discourse. A tone of wonder and awe permeates the 1980 *Cosmos* while one of excitement is present in its 2014 counterpart; it is this change in particular that may have detrimental effects if the two tones are not merged in public rhetoric going forward.