



Where Credit Is Due: How the Art World Reflects Evolving Sexual Politics

Tracing the development of sexism through the historical discredit of female artists.

Abstract

From Paleolithic cave paintings to Baroque Florence's Artemisia Gentileschi, scholars have uncovered many cases in which women's art was credited to their male contemporaries. This reoccurring dynamic communicates a cultural attitude of explicit disbelief in female abilities known as classical sexism. Even today, this trend persists as female artists' work is continually dismissed as derivative of, dependent on, or simply less valuable than men's. What can the art world tell us about the narrative arc of sexism? I will present case studies of marginalized female artists to illustrate the evolution of sexism in Western culture. Lee Krasner faced hostile degradation with accusations of her work being mere imitation of her more famous partner, Jackson Pollock. Benevolent paternalism is evident in Margaret Keane's story in which her husband took credit for her portraits to "protect" her from reality. The feminist revolution is young, and there is still progress to be made. (150)

Methodology

I conducted comparative case studies on female artists throughout history whose professional difficulties reflected their generation's form of sexism. I studied both the ambient struggles they faced as well as ways some contributed to their own subordination. These social pressures mirror my research of the historical advancements of modern sexism. (50)

References

- Fineberg, Jonathan, *Art Since 1940: Strategies of Being*, 3rd ed. New Jersey: Prentice Hall, 2010. Print.
- Glick, Peter, and Susan T. Fiske. "Ambivalent Sexism Revisited." *Psychology of women quarterly* 35.3 (2011): 530-535. PMC. Web. 10 Feb. 2015.
- Stokstad, Marilyn and Michael W. Cothren. *Art History*, 5th ed. New Jersey: Pearson, 2013. Print.
- Shibley Hyde, Janet and Nicole Else-Quest. *Half the Human Experience: The Psychology of Women*, 8th ed. Belmont: Wadsworth, 2013. Print.
- Hughes, Virginia. "Were the First Artists Mostly Women?" *National Geographic* (2013). Web. 11 Feb. 2015.



The Weight of Her Heart: Wu Zetian in Perspective

An examination of historian bias regarding Wu Zetian, the concubine who became the sole female Emperor of China, and its effect on contemporary views of women in positions of power.

Abstract

From Joan of Arc to Fusako Shigenobu, women are alternately vilified or venerated by those who tell their stories and, subsequently, those who listen. Modern historians build on the initial documentation of past historians; consequently, their works are imprinted with the same biases that can be found in the originals, creating a recycling of ancient cultures that continues to color modern decisions. Is our opinion of powerful women still dictated by long-dead scribes? Or have we cleared our judgement of their cultural obstructions? My analysis focuses on Wu Zetian, the sole female Emperor of China. By tracing the religious, socioeconomic and political nuances of the time, I argue that historical documentation on her reign was predetermined by the presiding culture and not rooted in her actions, person, or leadership. The threads of these documents can be found entwined with opinion on contemporary female politicians, continuing to alter modern perception. (149)

Methodology

For my project, I studied peer-reviewed research on Chinese religion, politics, geography, literature, socioeconomics, and gender-roles of the Sui and Tang dynasties to construct an appropriate context to analyze primary documentation of Wu Zetian. I then utilized these findings to scrutinize contemporary views on modern female politicians. (47)

References

Clements, Jonathan. *Wu: The Chinese Empress Who Schemed, Seduced and Murdered Her Way to Become a Living God*. Stroud: Sutton, 2007. Print.

Danya, Lin. "Chinese Women's Culture: From Tradition to Modernization." *Chinese Education and Society* 33.6 (2000): 24-36. Print.

Fang, Guo. "The Historical Track of the Chinese Ancient Female Personality." *Chinese Education and Society* 33.6 (2000): 6-14. Print.

McMahon, Keith. "Women Rulers in Imperial China." *Nan Nu — Men, Women & Gender in Early & Imperial China* 15.2 (2013): 179-218. Web.

Yaozhong, Yan. "Buddhist Discipline and the Family Life of Tang Women." *Chinese Studies in History* 45.4 (2012): 24-42. Web.



A Paradox of Scandinavian Social Democracy

An assessment on the sustainability of social democracy in relation to the escalating xenophobia in northern Europe.

Abstract

When notable sections of the population wish to eliminate the immigration and integration of foreign nationals in order to preserve a culture ironically built upon tolerance, one must question the social democratic system. Does a social democracy undermine itself when tolerance does not extend to newcomers in its society? Is an economic system even equipped to alleviate racial discrimination? In answering these questions, I scrutinize the archetype of social democracy through a case study of Denmark. The Danish universal welfare state has historically survived because of social trust and public institutions framed around the population's solidarity and egalitarianism. Antithetical to these ideals, Denmark enforces some of the strictest immigration laws in Europe. My research indicates, however, that immigrants alleviate a different threat to the welfare state: the consequences of a negative birth rate. Thus, I hypothesize that without the effectual integration of foreigners, states cannot sustain a social democracy. (149)

Methodology

I compile data released from Statistics Denmark and the European Social Survey to analyze the impact immigration has had upon the welfare state. I then evaluate integration policies by gauging the education, housing, and employment patterns of immigrants and their descendants along with the violence they face. (47)

References

Denmark. Ministry of Economic Affairs and Interior. Statistical Yearbook 2014. Statistics Denmark, June 2014. Web. 11 February 2015.

Exploring public attitudes, informing public policy: Selected findings from the first five rounds. European Social Survey, July 2013. Web. 11 February 2015.

Hedetoft, Ulf. "Denmark: Integrating Immigrants into a Homogeneous Welfare State." Migration Policy Institute. November 6 2006 Web. 3 February 2015.

Kingsley, Patrick. How to be Danish: A Journey to the Cultural Heart of Denmark. New York: Marble Arch Press, 2014. Print.

Kuttner, Robert. "The Copenhagen Consensus: Reading Adam Smith in Denmark." Foreign Affairs. Council on Foreign Relations, March/April 2008. Web. 3 February 2015.



Conservatism and Fighting Global Warming: An Either/Or?

An examination of the compatibility of 19th and 20th century conservative political philosophy with aggressive climate change mitigation policy.

Abstract

I see three types of conservatives in regards to climate change: the deniers; the minimalists — who accept anthropogenic global warming (AGW) but oppose aggressive mitigation policy; and lastly, the supporters, those who accept AGW and support aggressive mitigation policy. However, many conservatives deny that supporters can be true conservatives. I hope to show that a close reading of some influential 19th and 20th century conservative political philosophy texts reveals that, contrary to many conservatives' claims, one can be both a true conservative and a supporter. Given the current partisan polarization in congress, both conservative supporters and liberals may benefit from my analysis. Conservatives can support mitigation policy without abandoning their core values; liberals can appeal to conservatism in order to cultivate Republican support. We are amidst a pivotal moment. Given that climate change will worsen, my reexamination can help conservatives stay relevant: minimalists, even deniers, may become supporters. (149)

Methodology

I will apply Andrew Light's pragmatist approach from *The Case for Practical Pluralism* (2003) to fifteen primary sources — most notably canonical conservative texts from Burke, Kirk and Hayek, Pew Research polls on climate views and political affiliations, contemporary conservative environmental politicians and organizations, and counter-arguments from non-denial yet unsupportive conservatives. (51)

References

- Kirk, Russell, ed. *The Portable Conservative Reader*. New York: Penguin Group, 1982. Print.
- Kirk, Russell. "Ten Conservative Principles." *The Russell Kirk Center for Cultural Renewal*. Estate of Russell Kirk, 2007. Web. 1 Dec. 2014. <<http://www.kirkcenter.org/index.php/detail/ten-conservative-principles/>>
- McDonnell, Bob, et al. *We Believe in America: Republican Platform 2012*. GOP. Web. 5 Jan. 2015. <<https://gop.com/platform/>>
- Schmidtz, David, and Willott, Elizabeth, eds. *Environmental Ethics: What Really Matters, What Really Works*. New York: Oxford University Press, Inc., 2012. Print.
- World Research, Inc. "Inside the Hayek Equation: An Interview with Friedrich von Hayek." Online Video Clip. YouTube. YouTube, 15 May 2012. Web. 30 Jan. 2015. <<https://www.youtube.com/watch?v=52tyPRsL3VQ>>



Searching for the Fountain of Youth: an Inquiry into the Function of Telomerase

An investigation into the function of telomerase in humans, its potential to double life-expectancy, and its possible medical and social repercussion.

Abstract

Telomeres are non-coding DNA sequences at the end of chromosomes which shorten through cell division, leading to cellular aging. The enzyme telomerase naturally rebuilds telomeres; however, it is usually inactive. Would activating it allow humans to double their lifespan? If so, would social repercussions be severe enough to warrant banning such a treatment? Our investigation focuses on peer-reviewed studies of telomerase, economics, ecology, and ethics as well as data we collected from surveying 500 college students. Through our interdisciplinary approach, we show that, aside from medical concerns that telomerase may increase cancer risk, activating telomerase in humans may lead to a new social class based on longevity. If society is not adequately informed of potential consequences, we could unwittingly further the economic gap between countries and reap Malthusian consequences. (129)

Methodology

We performed meta-analysis on current scientific research on telomeres and telomerase as well as literature on ethics, economics, ecology, and vital statistics. Additionally, we worked with Citrus College's Office of Institutional Research to survey 500 college students and construct a sociological study. (42)

References

Blackburn, Elizabeth, and Carol Greider. "A Telomeric Sequence in the RNA of Tetrahymena Telomerase Required for Telomere Repeat Synthesis." Nature.com. Nature Publishing Group, 26 Jan. 1989. Web. 30 Nov. 2014.

Bojesen, Stig, Karen Pooley, Sharon Johnatty, Jonathan Beesly, Kyriaki Michailidou, Jonathan Tyrer... Alison Dunning. "Multiple Independent Variants at the TERT Locus Are Associated with Telomere Length and Risks of Breast and Ovarian Cancer." Nature Geneti

Davis, John. 2005. "Life-extension and the Malthusian Objection." Journal Of Medicine & Philosophy 30, no. 1: 27-44. Religion and Philosophy Collection, EBSCOhost (accessed December 14, 2014).

Drummond, Mark, Stefan Balabanov, and Tessa Holyoake. "The "End-Replication Problem" and Telomerase - Concise Review: Telomere Biology in Normal and Leukemic Hematopoietic Stem Cells." The "End-Replication Problem" and Telomerase. N.p., 17 May 2007. Web. 30 Nov. 2014.

Jaskelioff, Mariela, Florian L. Muller, Ji-Hye Paik, Emily Thomas, Shan Jiang, Andrew C. Adams, Ergun Sahin, Maria Kost-Alimova, Alexei Protopopov, Juan Cadiñanos, James W. Horner, Eleftheria Maratos-Flier, and Ronald A. Depinho. "Telomerase Reactivation



An Analytical Approach to Disease: What Can Evolutionary Game Theory Reveal About Cancer?

Evolutionary game theory may be used to analyze cancer cell populations and reveal optimal treatment conditions.

Abstract

Even with the advent of modern medicine, the threat of resistant and malignant cancer is present. Game theory, which has classically modeled economics, has the potential to model a population of competing and cooperating cells. The success of a cellular strategy is not inherent, but it is relative to the frequency of interacting strategies. In the recent past, there has been successful game theoretic analysis of multiple myeloma bone disease in which direct eradication of a malignant cell-type was shown only to lead to eventual re-emergence and dominance. Understanding the population dynamics of cancer may lead to more successful long-term eradication. Cancer cell populations subject to a gradient of chemotherapy may reveal important spatial-temporal factors, such as the optimal environmental conditions to suppress certain cell-types. With continual research on cancer population dynamics from a game theoretic approach, minimally invasive targeted therapies to suppress malignancy of cancer may become a possibility. (150)

Methodology

I had the opportunity to participate in an NSF-funded Molecular Biophysics REU internship. I worked with Professor Austin at Princeton University. For my project, I was mainly working on experimental physics procedures. I set up a micromanipulator protocol, built an incubator, and worked on fluorescence imaging to obtain data. (49)

References

- Cleveland, Chris, Liao, David, and Austin, Robert. "Physics of cancer propagation: A game theory perspective." *AIP Advances* 2, 011202 (2012). Web. 27 Jun. 2014.
- Dingli, David, et al. "Cancer phenotype as the outcome of an evolutionary game between normal and malignant cells." *British Journal of Cancer* 101(7) (2009): 1130-1136. Print.
- Liao, David, and Thea D. Tlsty. "Evolutionary game theory for physical and biological scientists. I. Training and validating population dynamics equations." *Interface Focus* 4: 20140037 (2014). Web. 24 Jul. 2014.
- Wu, Amy, et al. "Game theory in the death galaxy: interaction of acner and stromal cells in tumour microenvironment" *Interface Focus* 4: 20140028 (2014). Web. 24 Jul. 2014.



Human Meltdown: Why the Fukushima Nuclear Disaster was Preventable

An analysis using paradigm theory of the psychological and cultural causes behind the catastrophe.

Abstract

The 2011 Fukushima nuclear meltdown is one of the worst disasters in human history, resulting in \$105 billion of damage to the country of Japan, the health of its people, and the world energy economy. This accident, however, was entirely preventable. Records show that engineers and executives alike had been alerted to safety hazards regarding Fukushima's Mark I containment design years in advance. So why was nothing done to prevent this tragedy with all of the data screaming its impotence? I used Thomas Kuhn's Paradigm Model, various psychological theories and an analysis of Japanese culture to explain the Fukushima disaster. I will show how human tendencies like faulty assumptions, ostracizing dissenters and rewarding conformity created the false paradigm that the reactor was safe. The Mark I containment is a common element of many power plants. To prevent future fallouts, an understanding of this incident on a scientific, cultural and human level is essential. (153)

Methodology

I familiarized myself with a variety of error theories and Japanese culture through thorough research. Then I applied these theories to my analysis of the disaster gained by pouring over news articles, reactor design data, maintenance and safety records and the National Japanese Investigative Commission Report on the incident. (49)

References

- Kuhn, Thomas S. *The Structure of Scientific Revolutions*. Chicago, IL: U of Chicago, 1996. Print.
- Schulz, Kathryn. *Being Wrong: Adventures in the Margin of Error*. New York: Ecco, 2010. Print.
- Kurokawa, Kiyoshi. *Fukushima Nuclear Accident Independent Investigation Commission*. Rep. N.p.: National Diet of Japan, 2012. Print.
- Onishi, Norimitsu, and Ken Belson. "Culture of Complicity Tied To Stricken Nuclear Plant." *The New York Times*. The New York Times, 26 Apr. 2011. Web. 22 Apr. 2014.
- Schneider, Mycle. "Fukushima Crisis: Can Japan Be at the Forefront of an Authentic Paradigm Shift?" *Bulletin of the Atomic Scientists*. The Bulletin, 09 Sept. 2011. Web. 19 Apr. 2014.