

STUDY GUIDE: HAVE SCIENCE AND RELIGION ALWAYS BEEN AT WAR? THE DRAPER-WHITE THESIS

By Dr. Joshua M. Moritz

VIDEO SUMMARY: There is a popular conception that the historical relationship between science and religion has always been one of conflict or even all-out warfare. Historians of science call this the “conflict thesis.” In this video, historians of science Dr. Lawrence Principe and Dr. Edward Davis examine the historical roots and social context of the conflict thesis. Principe and Davis explain that the conflict thesis can be traced primarily to the popular works of two 19th century Americans: John William Draper and Andrew Dickson White. Principe and Davis argue that Draper and White’s use of the language of “conflict” and “warfare” falls far short of the historical reality. Nevertheless, the popularity of these two works and the global influence of these two works still inform current views of how science and religion intersect.

CONTRIBUTORS

Dr. Lawrence M. Principe is the Drew Professor of the Humanities at Johns Hopkins University in the Department of History of Science and Technology and the Department of Chemistry. He is author of *The Scientific Revolution: A Very Short Introduction* (Oxford University Press, 2011).

Dr. Edward (Ted) Davis is Professor of the History of Science at Messiah College in Mechanicsburg, PA. He is co-editor (with Michael Hunter) of *The Works of Robert Boyle* (Taylor & Francis, 2000).

DISCUSSION QUESTIONS

In this film, historian of science Dr. Lawrence Principe and Dr. Ted Davis explain that Draper and White’s views were rooted in the social and political movements of the time. Draper and White believed that the professionalization of the natural sciences required a complete separation of science from religion (up to this point in time, science and religion were not generally viewed as distinct entities). White’s work was developed within a context of “political maneuvering and fighting over federal dollars,” and he specifically wrote his book in order to justify the founding of Cornell University as a non-sectarian institution. Draper’s motivation was broadly related to the anti-Catholic panic that was growing in the US in the face of rising immigration by Irish Catholics and others.

1. Consider how Draper and White’s cultural and social context informs their work. How is our own context different than that experienced by Draper and White? How is our context similar?
2. What role does fear play in the context within which Draper and White originated their conflict thesis? Do you think fear plays a role in current discussions about science and religion?
3. Have you ever read a thrilling fictional story or watched an engaging drama that contained inaccurate historical content? Do you think dramatic portrayals of history are more memorable than a “just the facts” approach?
4. Do you think it is possible for individual practicing scientists to completely separate science from philosophy and religion in their pursuit of scientific knowledge? Why or why not?

In his interview for this film, Principe says that Draper and White promoted a “historical view that science and religion have always been at odds. The problem with the books is that they’re terrible history. The historical ‘facts’—that’s very generous to call them facts—are cherry-picked or contorted, taken out of context in order to promote the authors’ main ideas about this perpetual warfare between science and religion.”

5. Why do you think Draper’s and White’s works made such a deep impact on the readers of their age?
6. Why do you think Draper and White’s idea of the historical conflict between science and religion is still popular today, even though historians can show that it is factually inaccurate?

Many historians of science note that for several centuries, the pursuit of natural science was viewed as a form of worshipping God. Examples of devout scientists include the chemist Robert Boyle who believed that devotion to the study of nature made one a better Christian, and the astronomer Johannes Kepler, whose work was a means to glimpse “the eternal mathematical principles by which God made Creation.”

7. Do you think that the practice of science today can be seen as a form of worship? Why or why not?

FURTHER RESOURCES & SUGGESTED READINGS

Online Resources

- Video: John Hedley Brooke, "The Historical Roots of Modern Science"
<http://downloads.sms.cam.ac.uk/1771203/1771208.m4v>
- Video: Edward B. Davis, "Why History Matters: Debunking the 'Warfare' View of Science and Religion"
<http://downloads.sms.cam.ac.uk/1248941/1248945.m4v>
- Video: Lawrence M. Principe, "The Role of Religion in the Emergence of Modern Science"
<http://downloads.sms.cam.ac.uk/655617/655621.m4v>

Articles

- Erik Hammerstrom, "Early 20th Century Buddhist Microbiology and Shifts in Chinese Buddhism's 'Actual Canon,'" *Theology and Science* 10:1 (2012).
- David Lindberg and Ronald Numbers, "Beyond War and Peace: A Reappraisal of the Encounter Between Christianity and Science" (1987) (<http://www.asa3.org/ASA/PSCF/1987/PSCF9-87Lindberg.html>).
- Joshua Moritz, "The Scientific Revolution" in *The Routledge Companion to Modern Christian Thought*, Chad Meister and James Beilby, eds. (Routledge, 2013).
- Joshua Moritz, "The War that Never Was: Exploding the Myth of the Historical Conflict between Christianity and Science," *Theology and Science* 10:2 (2012).
- M. Alper Yalçinkaya, "Science as an ally of religion: a Muslim appropriation of 'the conflict thesis'," *British Journal for the History of Science* 44:2 (2011).

Books

- Peter J. Bowler, *Gorilla Trials and Monkey Sermons: Evolution and Christianity from Darwin to Intelligent Design* (Harvard University Press, 2007).
- John Hedley Brooke, *Science and Religion: Some Historical Perspectives* (Cambridge University Press, 1991).
- John Hedley Brooke and Ronald L. Numbers eds., *Science and Religion Around the World* (Oxford University Press, 2011).
- Ahmad Dallal, *Islam, Science, and the Challenge of History* (Yale University Press, 2010).
- Thomas Dixon, Geoffrey Cantor, and Stephen Pumfrey, eds. *Science and Religion: New Historical Perspectives* (Cambridge University Press, 2010).
- Gary B. Ferngren, ed. *Science and Religion: A Historical Introduction*, Second Edition (Johns Hopkins University Press, 2017).
- Noah J. Efron, *Judaism and Science: A Historical Introduction* (Greenwood Publishing, 2007).
- Edward Grant, *The Foundations of Modern Science in the Middle Ages: Their Religious, Institutional and Intellectual Contexts* (Cambridge University Press, 1996).
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- James Hannam, *The Genesis of Science: How the Christian Middle Ages Launched the Scientific Revolution* (Regnery Publishing, 2011).
- Peter Harrison, *The Territories of Science and Religion* (University of Chicago Press, 2015).
- John Heilbron, *The Sun in the Church: Cathedrals as Solar Observatories* (Harvard University Press, 1999).
- David Lindberg and Ronald Numbers, eds., *God & Nature: Historical Essays on the Encounter Between Christianity and Science* (University of California Press, 1986).
- Donald Lopez, *Buddhism and Science: A Guide for the Perplexed* (University of Chicago Press, 2008).
- Joshua Moritz, *Science and Religion: Beyond Warfare and Toward Understanding* (Anselm Academic, 2016).
- Ronald L. Numbers, ed. *Galileo Goes to Jail, and Other Myths about Science and Religion* (Harvard University Press, 2009).

- Lawrence M. Principe, *The Scientific Revolution: A Very Short Introduction* (Oxford University Press, 2011).

Joshua M. Moritz, PhD, is Lecturer of Philosophical Theology and the Natural Sciences at the Graduate Theological Union in Berkeley, adjunct professor of philosophy at the University of San Francisco, and Managing Editor of the journal *Theology and Science*. He is author of *Science and Religion: Beyond Warfare and Toward Understanding* (Anselm Academic, 2016) and *Research Perspectives in Science and Theology* (Brill, 2017).