We continue our examination, adding some materials to help us think about methods.

As you read the materials, consider these questions:

1. What do you think of the statistical analyses in Lawson and Worsnop? Do they use appropriate and effective strategies for forming the predictor and outcome measures? Do they use the appropriate and effective strategies for testing the study hypotheses? Do they report the results in an appropriate and effective manner?

2. Does being science literate tend to generate positive attitudes toward science, including acceptance of the “normative authority” of science (i.e., acceptance that science’s way of knowing the things that it purports to know the appropriate or most reliable way to know them)?

3. Is acceptance of the normative authority of science important for individual well-being? Is the inculcation of it in members of society important for a democratic society’s well-being?

4. How should one measure “pro-science attitudes” and acceptance of the “normative authority of science”? Do Gauchat_1 and Allum use valid and informative measures? Are better ones possible? Do Gauchat_1 and Allum appropriately and effectively model the social influences that conduce to pro-science attitudes and acceptance of the authority of science?

5. Do you think the U.S. has “pro-science” attitudes? Do members of the U.S. generally accept the normative authority of science—or is this a matter of significant conflict in the U.S.?

6. Does the evidence presented in Gauchat_2 support the inference that there is a “tension” between ideological conservatism and the normative authority of science, and if so how strongly does it support that inference? Are multiple inferences consistent with the data? If so, are they all equally supported by them? If multiple inferences are possible, what additional evidence might one collect to increase one’s confidence about the relative strength of the explanations with which they are associated?

7. Does Gauchat_2 appropriately and effectively model the influences on changes in trust or confidence in scientists over time? Is the model specified appropriately and effectively for purposes of testing the study hypotheses?
Session 3 Readings (indexed to pagination of course readings):

3. Gauchat, G. The cultural authority of science: Public trust and acceptance of organized science, Public Understanding of Science 20, 751-770 (2011) (Gauchat_1)................................. 317
7. Kahan, Ideology, Motivated Reasoning & Cognitive Reflection .............................................428