



Astronomy Worldviews



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Research Questions

1. How do students **characterize** the relationship of science to the following domains: society, quality of life, daily life, government, and religion?
2. How **consistent** are student responses across domains?

The Survey

- 5 Questions, one question per social framework
- Each question had a quantitative scale and an open-response section

For each of the statements A-E below, please circle the number that best represents your thinking. Inside the box please provide a detailed explanation or give an example(s) that clarifies your ranking.

A. The relationship between science and important activities in our society are:

Very Insignificant						Very Significant
-3	-2	-1	+1	+2	+3	

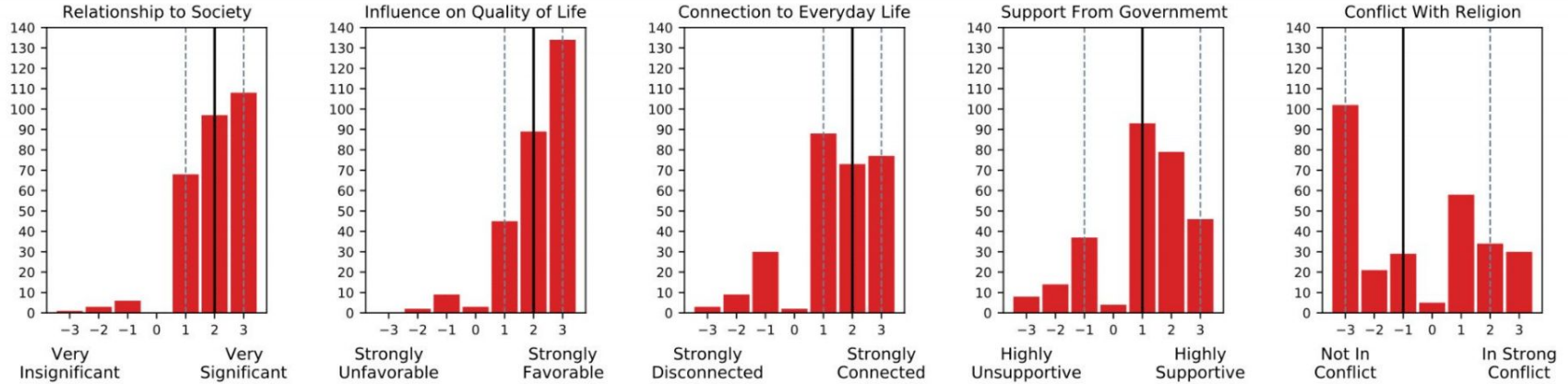
Provide explanation and/or example(s).

The Sample

- Non-science major undergraduates
- Introductory astronomy classes at the University of Arizona
- Spring of 2015
- Sample size was 283 students
- 46% freshmen, 33% sophomores, 9% juniors, 8% seniors, and 4% no identification information

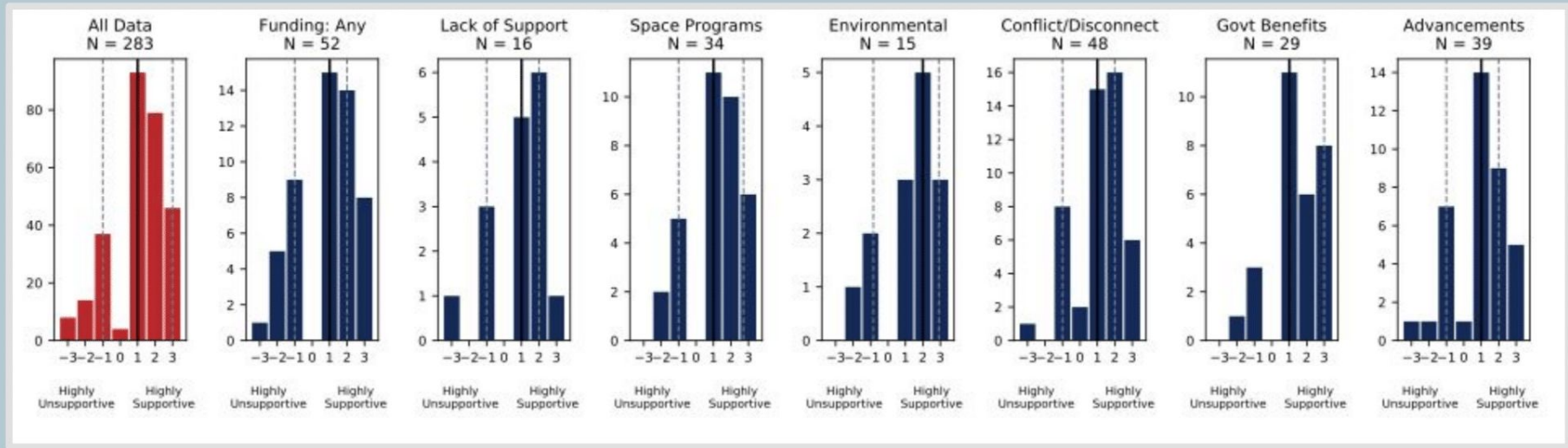


Quantitative Responses



- Scale: -3 to 3, addressing Research Question #1
- Labels on the x-axis are exactly how they appeared on the survey for the students
- Society and Quality of Life questions had many positive responses (negatively skewed)
- Religion question has bimodal distribution
 - More polarizing domain than the other 4

Open Response Explanations



- Coded subgroups of open responses (above example is results for Government question)
- Compared examples included in each question, addressing Research Question #2
- Helps explain why students hold their beliefs
 - Example: 29 of the 39 students who mentioned advancements indicated that the relationship between government and science is more supportive than unsupportive

Preliminary Results

- Majority of students hold pro-science beliefs
 - Society: 96% more significant than insignificant
 - Quality of Life: 95% influence is more favorable than unfavorable
 - Daily Life: 84% more connected than disconnected
 - Government: 77% more supportive than unsupportive
 - Religion: 54% more not in conflict than in conflict
- 46% of students say Religion is in conflict with science
- Instructors should welcome conversation about conflicting beliefs