

Selling Science to the Public

Georgia Purdom, Ph.D., Answers in Genesis

Keywords

science, framing, presupposition, creation evolution controversy, operational science, historical science

What comes to your mind when I say the word framing? I personally think of the process of framing a house in which a wood "skeleton" is built that will be the support for all the remaining structural elements. In the field of social sciences, framing means "presenting information either positively or negatively in order to change the influence is [sic] has on an individual or group."¹ In some ways this is similar to the framing of a house, as it provides the framework which supports the interpretation of information. Keep in mind, however, that framing is dependent on the foundation being used to support the frame and that a faulty foundation will lead to a collapsed frame. Both *The Scientist* magazine and *Science* magazine have recently published articles and letters to the editor on "framing" science.^{2, 3, 4}

One article further defines framing as, "Frames organize central ideas, defining a controversy to resonate with core values and assumptions They allow citizens to rapidly identify why an issue matters, who might be responsible, and what should be done."⁵ I would agree with this definition. As a speaker for Answers in Genesis, I often construct my presentations to help people understand the controversy over Genesis. I want them to understand why Genesis is relevant, that they are responsible for knowing that, and what they can do to help others understand this important issue. My frame is further dependent on the audience I am speaking to. A talk I give to children would not be appropriate for adults, and a talk I give to scientists would not be appropriate for laypeople. An evolutionist might construct their talks similarly, although from an opposing viewpoint. The difference is the foundation or presupposition being used to support the frame—is it God's Word or man's word?

Let's look at the topic of embryonic stem cell research (ESCR) to see how framing is used by both those for and against it. Those for ESCR use phrases like "scientists racing to find a cure" and "it is pro-life to be pro-research."⁶ Those against ESCR use phrases like "scientists are playing God" and "experiments on young humans."⁷ Those for ESCR have been successful (to a degree) by using the frames of "social progress" (meaning this will cure many people) and "economic competitiveness" (meaning they do not want the U.S. to be behind in research) to further their cause.⁸ Unfortunately, this appears to have resulted in increased advocacy for ESCR as measured by surveys conducted between 2001 and 2005.⁹ Of course, the main reason the framing by supporters of ESCR has been so successful is their presupposition that God's Word is not the basis for truth, thus devaluing human life. This resonates well with our secular society.

Framing the Creation/Evolution Controversy

The articles and letters to the editor mentioned above discussed framing as it pertains to the intelligent design (ID) movement/creation/evolution controversy.^{10, 11, 12} It became apparent that there were two basic viewpoints concerning framing the creation/evolution controversy.

The subtle approach

Matthew Nisbet and Dietram Scheufele state,

The facts are assumed to speak for themselves and to be interpreted by all citizens in similar ways. If the public does not accept or recognize these facts, then the failure in transmission is blamed on journalists, "irrational" beliefs or both.¹³

They believe the problem is that science is not "framed" appropriately, and if it were done properly, there will be no controversy over issues like ESCR and origins. They recognize that evidence does not speak for itself: scientists and others do, so their frames are important. They go on to discuss the ID/evolution controversy:

The Discovery Institute [think tank for the ID movement], through careful crafting and targeting of their message, created a public perception wedge, casting intelligent design as the "middle way," the scientific compromise between teaching "atheistic evolution" and constitutionally unacceptable biblical doctrine.¹⁴

Nisbet and Scheufele believe that, "... if scientists don't evolve in their strategies, they will essentially be waving a white flag, surrendering their important role as communicators."¹⁵ The authors apparently think that

those in the ID movement are not scientists or that their message is unscientific. It becomes apparent that the real issue is the foundations or presuppositions of the scientists. In the authors' minds allowing for an intelligent designer (like those of the ID movement) is wrong and only "atheistic evolution" is correct.

Nisbet and Chris Mooney discuss how atheistic evolution should be "framed" in order to increase its acceptance:

... the scientific theory of evolution has been accepted within the research community for decades. Yet as a debate over "intelligent design" was launched, antievolutionists promoted "scientific uncertainty" and "teach-the-controversy" frames, which scientists countered with science-intensive responses.

... the public likely tunes out these technical messages. Instead frames of "public accountability" that focus on the misuse of tax dollars, "economic development" that highlight the negative repercussions for communities embroiled in evolution battles, and "social progress" that define evolution as a building block for medical advances, are likely to engage broader support.¹⁶

While all of these "frames" are worthy of comment, I will restrict my comments to the last frame of "social progress." The authors fail to distinguish between operational science and historical science. Operational science does not require an understanding and acceptance of evolution, as exemplified by many great scientists who believed in the Creator God such as Newton, Kepler, Pasteur, etc. On the contrary, operational science actually requires a biblical worldview in order to make sense.

Nisbet and Scheufele encourage scientists to "facilitate incidental exposure" of the science they are trying to relay to the public.¹⁷ For example, "... carefully framed information about the value and utility of evolutionary biology could be made relevant to blogs about farming, gardening, or fishing."¹⁸ A farm local to the Creation Museum, Sunrock Farm, hosts a program called "Evolution on the Farm" that "shows how the key principles of evolution—variation, selection, heredity and time—apply to farming."¹⁹

The authors also want scientists to partner with churches by speaking at churches, giving tours of research facilities to churches, and getting religious leaders to support certain viewpoints on scientific issues.²⁰ Nisbet and Mooney state, "Messages must be positive and respect diversity many scientists fail to think strategically about how to communicate on evolution, but belittle and insult others' religious beliefs.²¹ One example of how this is being done is The Clergy Letter Project and Evolution Sunday. The authors, however, are being inconsistent. If they truly believe that godless evolution is fact, then what is their basis for wanting to "respect diversity" when they do not think such diversity has a basis in reality?

These "frames" remind me of how Satan tricked Eve in the Garden of Eden: "But I fear, lest by any means, as the serpent beguiled Eve through his subtilty, so your minds should be corrupted from the simplicity that is in Christ." (2 Corinthians 11:3, KJV).

The Not-so-subtle Approach

Robert Gerst, in a letter to the editor, encapsulated the opinions of many who disagreed with Nisbet and Mooney. Gerst states, "Science has credibility with the public precisely because the public believes that science is neutral, that it doesn't take positions or adopt particular frames."²² Yes, many people do seem to be under the impression that science is "neutral." But in reality, it is not. Creationists and evolutionists have the same evidence but different interpretations based on presuppositions.

Gerst then moves to the Dover, Pennsylvania, trial, which centered on the controversy of teaching intelligent design in the public school classroom. (Note: Gerst incorrectly lumps together the beliefs of the ID movement with those of biblical creationists). He states:

The antievolutionists lost [the Dover trial]. I think one reason why is that the creationists adopted "scientific uncertainty" and "teach-the-controversy frames" while science and evolution refused to adopt any frame at all.

... Rather, they stuck to the science. In so doing, they built their arguments on a rich intellectual tradition that, more than any other in our society, is seen as unbiased and credible.

 \dots those testifying for the antievolutionary camp were tainted. They destroyed their own credibility and diminished the power of any countering arguments.²³

Gerst either fails to recognize that evolution is built on atheistic presuppositions or believes those presuppositions are the only possibility. The reason those of the ID movement failed had little to do with their arguments and more to do with the apparently atheistic presuppositions of the judge presiding over the trial. Evolutionists and creationists are both "tainted." Either God does not exist or He does exist, respectively. Only one can be correct.

Gerst thinks that respecting religious beliefs (as Nisbet and Mooney suggested) is incorrect. He says: The scientific community has been much too respectful of the religious beliefs of others. When someone claims that the world is 6,000 years old, that is belittling and insulting the work of science, and just plain dumb. Scientists have to say that, and say it more often.²⁴

At least Gerst is being consistent. To him, godless evolution is fact, so other religious beliefs should not be tolerated.

What Are They So Worried About?

After reading the articles and the letters to the editor, I got the impression that the evolutionists are really worried that "science" is losing. Their belief seems to be that scientists are always right, and they are the final authority. Stephen Quantrano, in a letter to the editor states, "But we should be concerned if the dominant frames in the media omit the authoritative basis of science in empirical observation, experimental methods, and rational argument, for example. We're left with science 'facts' in an alien frame."²⁵ Again, the line between operational science and historical science is blurred. I also wonder what his basis is for a "rational argument." If he is to be consistent in his belief in the authority of naturalistic science, which excludes immaterial entities such as God, then he must also reject the immaterial laws of logic. This does not provide him any logic for making a rational argument. As biblical creationists we know God's authority is supreme to man's, but this would be seen as an "alien frame" to him.

Nisbet and Mooney believe that while science should be the supreme authority, most people do not regard it as such, and that is why framing is so important. "However, many scientists retain the well-intentioned belief that, if laypeople better understood technical complexities from news coverage, their viewpoints would be more like scientists', and controversy would subside."²⁶ They also state, "Ideology and religion can screen out even dominant positive narratives about science, and reaching some segments of the public will remain a challenge."²⁷ Again, they apparently fail to recognize their own "ideology and religion" (humanism, naturalism, atheism, etc.) affects how they interpret science.

Nisbet and Scheufele try to equate knowledge with science and again assert its supreme authority:

... citizens prefer to rely on their social values to pick and choose information sources that confirm what they already believe, often making up their minds about a topic in the absence of knowledge.

 \dots In place of knowledge, the public has relied heavily on their social values in combinations with the most readily available interpretation featured in the media.²⁸

The authors fail to acknowledge that everyone, including themselves, interprets knowledge and science in light of their social values, which are based on their presuppositions.

Framing Is Important

Working for Answers in Genesis as a scientist, I fully appreciate the importance of "framing" science, so long as the framing is not deceptive. It should be understandable and relevant to people I am speaking to. Jesus saw the importance of this when He spoke to His disciples and the people of His day. In the agricultural society in which He lived, it made sense to compare faith to a mustard seed (Matthew 17:20). It would not have made sense to compare it to something as small as a bacterium or virus, of which they would have no knowledge.

The most important thing to remember is that the frames used to "frame" science are sitting on a foundation. For biblical creationists the foundation is the Word of God; for evolutionists the foundation is human reason that rejects the revelation of the Creator. "Crusading" evolutionists, such as these, use their interpretation of science in an attempt to prove that mere human reason is true. In a similar way, biblical creationists also use their interpretations of science to confirm the Bible is true. However, neither can "prove" anything about origins. Yet God and His Word are true: the supreme authority and self-authenticating. When Jesus returns, the foundation of human reason will fail, and the "frame" of evolution will collapse.

Footnotes

- 1. AllPsych Online, Framing. Retrieved from, http://allpsych.com/dictionary/dictionary2.html.
- Nisbet, M., and D. Scheufele, 2007. The future of public engagement. *The Scientist* 21:39–44. Retrieved from, http://www. the-scientist.com/2007/10/1/38/1/.
- Nisbet, M., and C. Mooney, 2007. Framing Science. Science 316:56. Retrieved from, http://www.sciencemag.org/cgi/content/ summary/316/5821/56.
- Holland, E.M., A. Pleasant, S. Quatrano, and R. Gerst, 2007. The risks and advantages of framing science. Science 317:1168– 1170. Retrieved from, http://www.sciencemag.org/cgi/content/summary/317/5842/1168a/
- 5. Nisbet and Mooney, Ref. 3.
- 6. Nisbet and Scheufele, Ref.2.
- 7. Nisbet and Scheufele, Ref. 2.
- 8. Nisbet and Mooney, Ref. 3.

- 9. Nisbet and Mooney, Ref. 3.
- $10.\ Nisbet and Scheufele, Ref. 2.$
- 11. Nisbet and Mooney, Ref. 3.
- $12.\ Holland$ et al., Ref. 4.
- 13. Nisbet and Scheufele, Ref.2.
- 14. Nisbet and Scheufele, Ref. 2.
- 15. Nisbet and Scheufele, Ref.2.
- 16. Nisbet and Mooney, Ref. 3.
- 17. Nisbet and Scheufele, Ref.2.
- 18. Nisbet and Scheufele, Ref. 2. $\,$
- 19. Northern Kentucky Enquirer, "A Highly Evolved Farm," October 1, 2007.
- 20. Nisbet and Scheufele, Ref.2.
- 21. Nisbet and Scheufele, Ref.2.
- 22. Holland et al., Ref. 4.
- 23. Holland et al., Ref. 4.
- 24. Holland et al., Ref. 4.
- 25. Holland et al., Ref. 4.
- 26. Nisbet and Mooney, Ref. 3.
- 27. Nisbet and Mooney, Ref. 3.
- 28. Nisbet and Scheufele, Ref.2.

© 2007 Answers in Genesis