

Informal Education and Evolution: Considering Religious Beliefs

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Zoos, aquariums, natural history museums, and science centers inevitably include material on evolution in their exhibitions. However, rarely are the messages in these exhibitions evaluated. Most exhibition centers are wary of even including the "E" word. To effectively teach evolutionary theory, we need a better understanding of the public's knowledge of and attitudes toward this subject.

We have been involved in a project to assess people's understanding of evolution and to determine what type of messages might be most effective in communicating evolutionary theory. The current report focuses on one aspect of our findings — the relationship between attitudes toward evolution/creation theories and the perception that evolution conflicts with Christian religions.

A 20-item attitude survey was given to 275 university students enrolled in introductory courses in psychology and biology. Respondents were asked to give their agreement or disagreement for each item. Only part of this data is reported here. The "Neutral" response percentages are not reported.

Results

Examination of Table 1 reveals several important findings: (1) Over 58% of respondents agreed with the statement "Evolution conflicts with my religious beliefs."; (2) Responses to the statement "Evolution conflicts with my religious beliefs" were strongly related to how respondents answered other questions; (3) While only 34% of respondents agreed that "Darwin's theory is essentially correct, 61% agreed with the item describing natural selection ("New traits in living things make a species more or less able to survive"); (4) Almost 50% agreed that a day in Genesis is 24 hours, while only 13% disagreed that a day in Genesis could represent thousands or millions of years; (5) Almost half of respondents agreed that God used evolution, while only 20% disagreed.

Discussion

The findings suggest that many people are confused about the evolution-creation issue. Over half believe that evolution conflicts with their religious beliefs. But, many respondents fail to understand what evolution is. Some of the conflicting answers (a day in Genesis is 24 hours and thousands of years) may be due to the fact that some respondents will agree with any statement that seems to generally support religion, even if that statement conflicts with other statements about religion. Note that some of these findings can be explained by the "Bible Belt" location of the survey.

Table 1
Attitudes and Religious Beliefs

Item	"Evolution conflicts with my religious beliefs"			Prob.
	Agree (58%)	Disagree (25%)		
Living things created during a short period of time by an act of God.	Agree (71%) Disagree (17%)	80% 16	54% 27	.0010
Darwin's theory of evolution through natural selection is essentially correct.	Agree (34%) Disagree (41%)	19 61	58 12	.0001
New traits in living things make a species more or less able to survive.	Agree (61%) Disagree (13%)	52 13	81 04	.139
Living things look the same today as when they first appeared on earth.	Agree (38%) Disagree (50%)	45 41	39 50	.0025
God used evolution to guide the development of new life forms.	Agree (47%) Disagree (20%)	32 32	77 04	.0001
Genesis is a correct account of creation: one day in Genesis is equal to 24 hours.	Agree (49%) Disagree (21%)	55 17	42 31	.0065
In Genesis, a day could represent thousands or millions of years.	Agree (45%) Disagree (13%)	42 17	54 15	.0001