

Comparing Origins Belief and Moral Views

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*Presented at the Fourth International Conference on Creationism
Pittsburgh, PA, August 3-8, 1998*

Abstract

Does what you believe about origins affect your worldview? Do origin assumptions provide a foundation upon which important moral questions are answered? Many creationists have advanced the idea that what one believes about creation and evolution affects his or her worldview. Empirical studies in this area are, however, lacking. By advancing a hypothesis that does not have empirical support, creationists are seen by some in the "mainstream" scientific community as extreme and unscientific [10]

This paper reports on a study involving the development and implementation of a survey of science teachers to ascertain the relationship between their belief in creation or evolution and their moral views. The research hypothesis, that there is a relationship between one's origins belief and his or her moral view, is supported. The secondary hypothesis, that the more one believes in creation, the more positive his or her moral views, also is supported.

On the specific questions of intimacy, there also appears to be a relationship at the later stages in the expected direction. That is, the more the subject believes in creation, the less he or she is willing to morally accept sexual intercourse between two unmarried consenting people. Recommendations for further study are included along with the survey instrument.

Keywords

Worldview, origins belief, moral views, regression, AdecA, correlation

INTRODUCTION

Does what one believes about creation and evolution affect his or her worldview? Do origin assumptions provide a foundation upon which important moral questions are answered? Creationists have advanced the idea that what one believes about creation and evolution affects his or her worldview. For example, Morris [24] stated in the "When Two Worldviews Collide" videotape, "wrong thinking always begets wrong behavior and evolution is wrong thinking." Ham [14, p. 41] said, "there is a connection between origins and issues affecting society such as marriage, clothing, abortion, sexual deviancy, parental authority, etc." More directly, Barnes [5, p. 21] claims, "not only have many given away institutions of higher learning to the evolutionary establishment, but they are also giving away their own children to be trained in an evolutionary mind set. This is causing our children to abandon the traditional Judeo-Christian values upon which our society is founded." Morris and Morris [22, p. 12] state, "a person's philosophy of origins will inevitably determine sooner or later what he believes concerning his destiny, and even what he believes about the meaning and purpose of his life and **actions right now in the present world**" (emphasis added).

The idea that what one believes about creation and evolution affects his or her worldview, however, has not been empirically tested. By advancing an idea that does not have empirical support, creationists are seen by some in the "mainstream" scientific community as extreme and unscientific [10]. Creationists, however, are not the only ones advancing this hypothesis. Corsen [8, p. 8] notes "almost anything about which people may disagree can ultimately be seen as a moral question." He continues [p. 14], "because personal morality is, as we have suggested, a reflection of the individual's world view, even some aspects of scientific inquiry have moral overtones. This is particularly true in the teaching of the theory of evolution, where religious beliefs directly conflict with scientific orthodoxy." North [25] highlights the importance of this issue:

Christians have not been shown clearly and decisively that Darwinism is a total worldview and that by accepting any aspect of this worldview, Christians compromise and weaken the presentation of the Christian worldview, as well as risk disobeying God. They have not been shown how evolutionism spreads like cancer from the geology or biology textbook to every area of personal ethics and public policy. Worse, they have not been shown why and how six-day creationism leads to a fundamentally unique worldview that encompasses things other than academic topics like historical geology and biology. To win the battle with Darwinism, which is above all a comprehensive worldview justifying comprehensive power, six-day creationists must believe that the stakes are far larger than mere laboratory experiments or one-evening debates. Creation scientists must demonstrate to Christians that six-day creationism really makes a difference in every area of life (p. xiv-xv).

REVIEW OF RELATED LITERATURE

Dant [9, p. 3691A] studied the "perceptions of post-secondary science educators regarding the teaching of concepts of both creation and evolution in science courses at post-secondary institutions." He found that "(1) Post-secondary educators hold different perceptions concerning the teaching of ideas of both creation and evolution in their science courses. (2) These differences appear to be attributed primarily to the *religious viewpoint* and *religious affiliation* of educators" (italics his). Similarly, Affannato [1, p. 2528A] concluded from a poll of high school biology teachers about the teaching of evolutionary theory and/or the creation model in the United States. He found that "the religious preferences of the respondents has influenced their opinions more than their educational preparation." Other researchers have investigated the relationship between creation/evolution belief and religion [11; 18]. They report the percentages of answers to the particular questions but make no attempt to perform any statistical correlation between origins belief and religious belief. Typically, the surveys asked the subject's opinion about the teaching of evolution's impact on society. The general question is similar to the one used by Lord [18, p. 354] which states, "do you **believe** that the teaching of concepts which rely on a purely naturalistic explanation of the world, such as that used in the modern theory of evolution, might eventually lead to a 'decay' of American society?" (emphasis added). Overman [26] performed a preliminary study in which he found a correlation between the subjects' belief in origins and their moral views. The sample size was too small for statistically valid conclusions but the relationship was observed. While many of the other studies may have the data to, at least, test the relationship between religious beliefs and origins belief through regression analysis, they have apparently not done so. No studies, other than Overman's preliminary study, have been found that attempt to test the correlation between the subject's belief in origins and his or her moral views.

There is no general agreement on the appropriate methods for analyzing the ordinal data obtained through a Likert scale survey. The literature is divided into two groups--those who do not think parametric analysis of ordinal data is appropriate and those who do. The debate is summed up by Gregoire & Driver [13].

Two camps are evident in the literature. One view is that only nonparametric techniques may be applied validly, and any treatment of ordinal data in a manner not consistent with the level of measure is unjustified (Champion, 1967; Stevens, 1946; Townsend & Ashby, 1984; Wetermann, 1983). In supporting this view, proponents usually appeal to arguments that the level of measurement determines the class of transformations that are admissible, that is, that can produce meaningful statistics. Averages are not considered meaningful when constructed with ordinal data. Opposing views are held by those who maintain that there is no inconsistency when parametric procedures are used with ordinal data or who disagree that using such techniques causes substantial bias (Anderson, 1961; Borgatta, 1968; Gaito, 1980; Kim, 1975; Labovitz, 1972; Lord, 1953). The robustness of many parametric procedures and the results of simulation comparisons are often cited in support of their arguments (p. 159).

The purpose of this paper is to see if there is a relationship between the subject's creation/evolution belief and his or her moral views. This requires the use of the parametric techniques of regression analysis. This is an initial analysis using standard linear regression analysis and analysis of variance.

Conclusion from Literature Review

The impact of one's origins beliefs on his or her worldview is generally believed in the young earth creationist community, but has not been extensively studied. There is anecdotal and philosophical evidence that there is an impact, but confirming research is lacking. Most research asks if the subject believes that there is an impact, but does not attempt to determine the existence or extent of the impact. Based on the literature review, parametric analysis of Likert scale ordinal data is considered valid and will be used. Dissenting opinions are noted.

METHODOLOGY AND DATA

Survey Instrument

This paper involves development and analysis of a 5 point Likert scale survey. The survey instrument was constructed to accomplish three objectives:

- 1) Evaluate the extent to which the subject believes in creation or evolution.
- 2) Evaluate the subject's moral views.
- 3) Allow a comparison of the subject's belief in creation or evolution with the subject's moral views.

Sample Population

A random sample of 1,126 names was obtained from the National Science Teachers Association (NSTA). NSTA selected the names by taking the n^{th} name from the U.S. Registry of Teachers, Grades K-12 Science Teachers.

The registry was the source of the sample population for 3 reasons: 1) It is assumed that they would tend to be the most familiar with the creation/evolution issues. 2) They are the ones who are teaching evolution (and in some cases creation). 3) The availability of the names and addresses from the NSTA.

Survey Instrument Validation

Five experts in the field as listed below validated the survey. Validation tests whether the survey actually measures the concepts it was designed to measure. The survey was sent or handed to the experts with a cover letter or verbal explanation. They were asked to determine if each question deals with belief in origins or moral views. Their responses were compared with the design intent of the question in the survey. If a majority agreed with the design intent, the question was considered valid. At least three of the five validators agreed with the design intent of all of the questions. The questions on the validation instrument were put in random order so the experts would not recognize and be influenced by the design pattern of the survey. The experts were:

Dr. Henry Morris: Noted creationist and considered by some to be a founder of the modern creation era.

Dr. John Whitcomb: Theologian and also considered by some to be a founder of the modern creation era.

Dr. Duane Gish: Noted creationist and debater of creation and evolution.

Dr. Gerald Skoog: Evolutionist, College of Education, Texas Tech University.

Mr. Jim Stambaugh: Theologian and creationist.

Two of the experts questioned the premise of the survey. Dr. Morris stated, "In one sense, every statement is related to origins in the sense that if God is indeed the Creator, then His Word is determinative in every moral issue as well as every scientific issue. Thus the question is not adequately defined as stated." This presupposes the hypothesis. If every statement is related to origins, then there must be a relationship between moral views and origins belief. The purpose of the study is to test the relationship and hence, test the statement that "His Word is determinative in every moral issue as well as every scientific issue."

Dr. Skoog had two general comments: "I don't think it is appropriate to use the term belief with a scientific statement- science is not a believe it or not affair." "I don't believe your questionnaire will provide you with useful information. Evolution is not about origins- it is about change of organisms through time. Also, science is not a belief system." Skoog is at odds with his evolutionary colleagues in a number of ways. First, he states that "science is not a believe it or not affair". As early as 1929, Watson [29, p. 233] stated that evolution is "a theory universally accepted not because it can be proven by logically coherent evidence to be true", hence, it must be believed. By 1971, nothing had changed. As Matthews [19, p. xi] puts it, "the fact of evolution is the backbone of biology, and biology is thus in the peculiar position of being a science founded on an unproved theory- is it then science or faith?" Finally, in 1992, Lawson [17, p. 144] states, "We expected to find that students who initially express a commitment to special creation will be less likely to change to a **belief** in evolution during instruction than those students who are initially uncommitted. This prediction is based upon the common-sense notion that acquiring a new **belief** is easier when you do not have to give up a prior belief to do so" (emphasis added).

Second, Skoog states that evolution is not about origins, rather, it is about change of organisms through time. Futyma [12, p. 197] disagrees, "Creation and evolution, between them, exhaust the possible explanations for the origin of living things." The surveys cited in the literature review treated evolution from an origins perspective. They also asked questions about aspects of evolution other than organic evolution. The popular definition of evolution was expanded years ago.

The concept of evolution was soon extended into other than biological fields. Inorganic subjects such as the life-history of stars and the formation of chemical elements on the one hand and on the other hand, subjects like linguistics, social anthropology, and comparative law and religion, began to be studied from an evolutionary angle, until today we are enabled to see evolution as a universal and all pervading process [15, p. 272].

Skoog's definition of evolution apparently has recently changed. He published the results of a survey with Shanker in 1993 [27]. A copy of the survey used for their publication was provided by personal correspondence from Skoog [28]. Many questions on the instrument for this paper are similar to the questions on his and Dr. Shanker's instrument and transcend the boundaries of organic evolution. For example, they ask, "The earth has evolved to its present state under the influence of physical processes during billions of years" (question 39) [27]. Given the similarity between the instrument validated for this paper by Skoog and the instrument used for his study with Shanker, it is difficult to understand why he would say that the instrument will not provide useful information.

Since the majority agreed with the design intent of all of the survey questions, the survey is considered valid. Of those that responded to a question, the experts unanimously agreed with the design intent on 14 of the 18 questions. The remaining questions only had one dissenting opinion each. This means that the survey measures origins belief and moral views. The panel of experts was also able to differentiate between origins related questions and moral view questions.

Field Test of Survey

A field test was performed on a group randomly selected by taking the n^{th} name from those provided on the registry. The 1,126 names were provided on 24 sheets of mailing labels with 4 columns each. The names were sorted by zip code. The field test sample population was comprised of the names at the top of each column on the 24 sheets. This provided 96 names. The last 4 names from the last column on the last sheet rounded out the list of 100 field test subjects. This method provided a field test sample population that was representative of the total sample population. The survey was mailed to the field test sample population with a cover note explaining that this was a thesis survey. A self-addressed return envelope was included with the survey. To avoid influencing the results, there was no indication as to who was conducting the survey other than the author's name. The results and analysis of the field test are provided in the appropriate sections. Based on the field test, no other changes to the survey were deemed necessary. From consultation with statistics professor, Dr. Marlene Kovaly, the reliability was sufficient to proceed with surveying the total population.

Main Survey

Since no changes to the survey were necessary, a first mailing was made to the total sample population of 1,026 names. To encourage a better response than the field test, the back of the outside envelope contained the following in large bold letters: "Graduate Thesis Survey Enclosed" was at the top with "Please complete survey and return as soon as possible. It should only take 10 min." at the bottom. A self-addressed envelope was included with the survey. Finally, a cover note, similar to the field test cover note was included. Two methods were employed to identify those that returned the survey. First, the subject's name and city were written on the cover note. The subject was asked to return the cover note and was guaranteed confidentiality. The second method was to place a number on the lower right hand corner on the back of the return envelope. This number corresponded to a number for each name on the master list. The results section provides information about the effectiveness of these methods. The first mailing yielded 173 usable surveys, so a second mailing was necessary.

The second mailing was sent to the 834 who did not respond to the first mailing. To obtain a projected sample size of 380-390, additional 200+ responses were required. Two changes were made in an attempt to increase the response rate. First, the cover note was changed with the following added to the top in bold letters: "SECOND MAILING, SELF-ADDRESSED STAMPED ENVELOPE ENCLOSED. PLEASE RETURN SO MY STAMP IS NOT WASTED, THANK YOU." The second change was that a stamp was added to the return envelope. Some of those responding to the first mailing complained that the return envelope was not stamped. The second mailing yielded 140 usable surveys for a total of 313 usable surveys.

FINDINGS

This section presents the results of the field test and survey along with the analysis. The first part contains the data and analysis from the field test. The data and analysis from the main survey is provided after the field test.

Field Test

One hundred surveys were mailed with a 20% return rate. All surveys were used for the reliability calculations. The purpose of the field test is to determine the reliability of the survey before mailing the main survey.

Analysis of Variance (AdecA) techniques, as described by Kerlinger [16], are used to determine the overall reliability of the field test survey. The overall reliability coefficient is 0.26. This is not significant for 19 degrees of freedom [3, p. 155]. This lack of significance was cause for concern, so Dr. Kovaly

(statistics professor at Florida Community College at Jacksonville) was consulted. She advised continuing, as the reliability numbers achieved would be significant for the larger population expected from the main survey. As it was deemed that the survey was reliable and valid, the main survey was mailed for the first time.

Main Survey

The response rate of the first mailing was slightly lower than for the field test. The field test response rate was 20% while the first mailing was 18.7%. After taking out the surveys that were returned blank or not completely filled out, the usable response rate dropped to 16.9% of the surveys mailed. The improvements apparently did not work.

The second mailing was used to increase the number of surveys for analysis. The methodology section details the changes made to garner a greater response. The enhancements increased the overall response rate to 23.7% but did not improve the usable response rate that was 16.7%.

The overall reliability coefficient is 0.17. Since the F statistic for the individuals is significant (1.19, $p < 0.01$), the reliability coefficient is significant [16]. Blalock [6] provides another means of determining the significance of a correlation coefficient. By this method, an F statistic is calculated for the r-value with the following equation:

$$F_{1,n-2} = \frac{r^2(N-2)}{1-r^2} \quad \text{Therefore, } F_{1,313} = \frac{(0.17)^2}{1-(0.17)^2} (311) = 9.3$$

From Ary et al. [4], $F_{D1,313} = 6.73$. Since $F > F_D$ the r-value is significant and the survey is reliable. With the reliability being significant, the survey results are meaningful for this population and any relationships identified are indicative of the views of the population and cannot be the result of random chance.

TREND ANALYSIS

This section addresses the purpose of the study. That is, is there a relationship between the extent to which a person believes in creation or evolution and his or her moral views?

The extent of belief in creation or evolution is measured by taking the average response to the even questions on the survey (except question 18). However, the average cannot be calculated directly from the data. In order to observe the full range of beliefs, it is necessary to reverse the answers to half of the questions. By way of explanation, those with a pure creationist belief would answer with a "1" (strongly agree) to the creation oriented questions and with a "5" (strongly disagree) to the evolution oriented questions. Since there are 4 of each type of question (creation oriented or evolution oriented), the average would be a "3". Similarly, those with a pure evolution belief would score an average of "3" by answering with a "5" to the creation oriented questions and a "1" to the evolution oriented questions. Therefore, differentiation between the two is made by reversing the answers to the creation oriented questions (#4,8,12,16). In so doing, those with a pure creation orientation will have an average score of "5" and those with a pure evolution orientation will have an average score of "1". Table 1 illustrates this process.

Question	Evolution		Creation	
	Pre-Reverse	Post Reverse	Pre-Reverse	Post Reverse
2	1	1	5	5
4	5	1	1	5
6	1	1	5	5
8	5	1	1	5
10	1	1	5	5
12	5	1	1	5
14	1	1	5	5
16	5	1	1	5

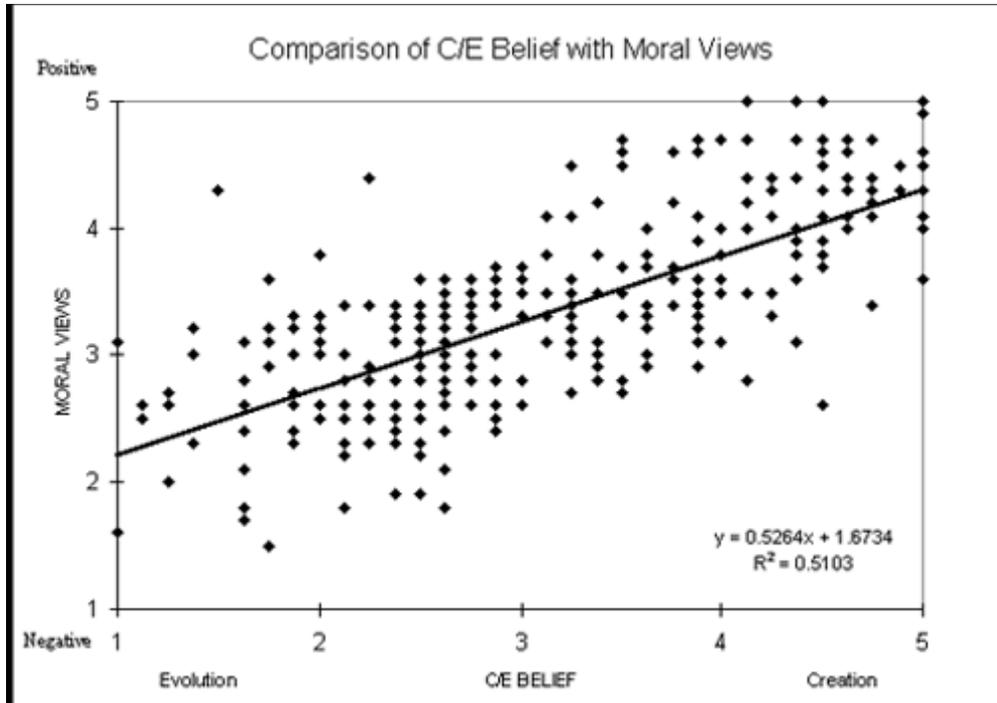
Table 1- Reversing of Origins Questions

Moral views are measured by calculating the average score of the odd questions and question 18. There are 5 questions that are oriented toward a negative moral view and 5 questions oriented toward a positive moral view. Calculating a direct average will not differentiate between those with more negative or positive moral views. As with the creation and evolution questions above, differentiation is achieved by reversing the questions oriented toward a positive moral view (#3,7,11,15,18). Hence, those who strongly agree with a negative moral view will have an average of 1 and those who strongly disagree will have a positive moral view with an average of 5. Table 2 illustrates this process.

Question	+ Moral		- Moral	
	Pre-Reverse	Post Reverse	Pre-Reverse	Post Reverse
1	5	5	1	1
3	1	5	5	1
5	5	5	1	1
7	1	5	5	1
9	5	5	1	1
11	1	5	5	1
13	5	5	1	1
15	1	5	5	1
17	5	5	1	1
18	1	5	5	1

Table 2- Reversing of Moral Views Questions

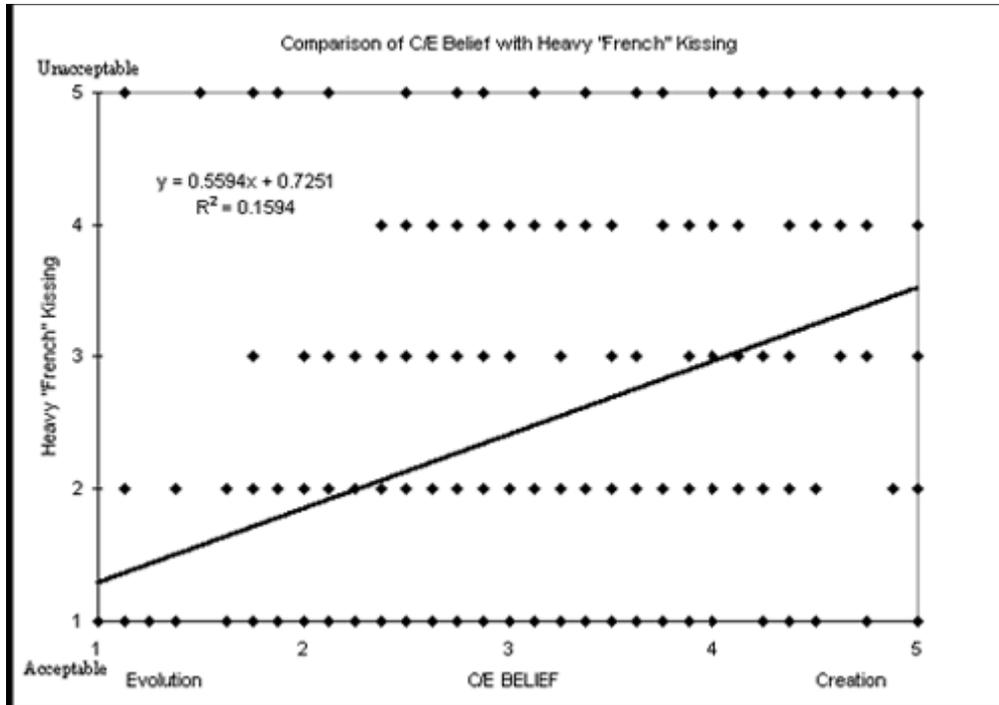
Observation of the scatterplot of Graph 1 shows that there appears to be a relationship between the variables. Regression analysis was performed by the regression analysis feature of the Microsoft Excel spreadsheet software and verified by hand calculations. The coefficient of determination, ($R^2=0.51$) is strong. The Pearson correlation coefficient which is the square root of R ($r=0.71$) is used for comparison with Arkin & Colton [3]. From Arkin & Colton [3], the r value for 300 degrees of freedom and 2 variables that is significant ($p<.01$) is 0.113. This compares with 0.71 for graph 1. Hence, there appears to be a strong relationship between the subjects' origins belief and their moral views.



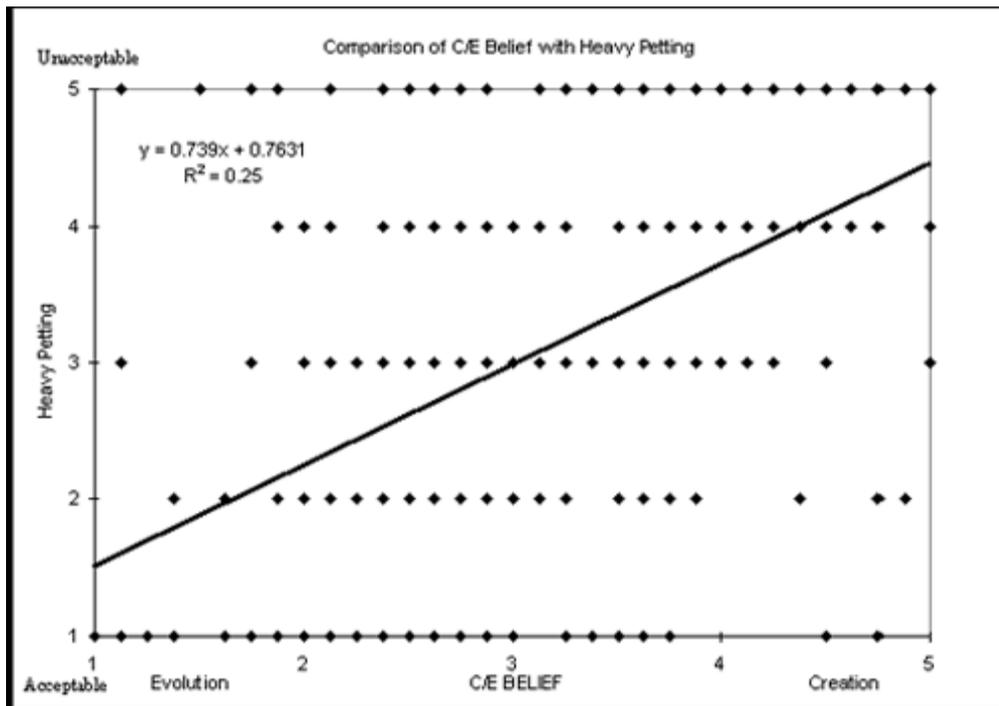
Graph 1

Questions 19 - 23 of the survey are not included in the average calculations above. These questions ask if the subjects believe whether increasing stages of intimacy are morally acceptable for two people who love each other but are not married. They are each individually compared with the subjects' origins belief average. Graphs 2 - 6 provide the results of the comparisons for questions 19 through 23.

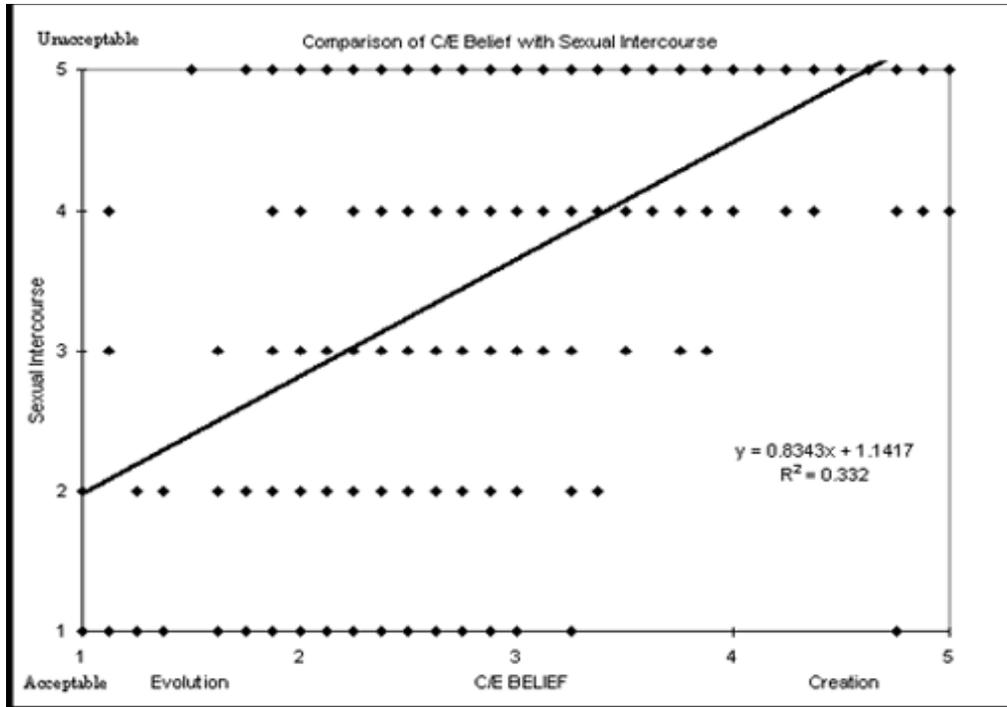
As expected, graph 2 shows that virtually all of the subjects strongly agree or agree that holding hands is morally acceptable. Of the few that did not, it appears that two with an evolutionist view disagree the strongest. Graph 3 shows that more object to embracing with some kissing, but there is no clear trend. This was also not surprising. Graph 4 begins to show more diversity of views with a relatively equal distribution from strongly agree to strongly disagree. A trend line could be drawn with a statistically significant Pearson's r value of 0.399 ($p < .01$). Graph 5 continues to show the development of a relationship, Pearson's $r = 0.500$ ($p < .01$). It appears that those with a creationist view tend to disagree that heavy petting is morally acceptable more so than those with an evolution belief. Graph 6 more strongly shows the trend that began to appear in graph 4 and 5, Pearson $r = 0.576$ ($p < .01$). Again, those with a creationist view tend to find this activity morally unacceptable.



Graph 4



Graph 5



Graph 6

The paragraphs above report the Pearson r values which are the square root calculations of the R² correlation of determination coefficients calculated by the Excel spreadsheet software. Table 3 provides the corresponding Pearson and Spearman ranking correlation coefficients and whether or not they are significant to the indicated p value when compared with Arkin and Colton [3]. "NS" means not significant. The Spearman ranking correlation is the more appropriate correlation coefficient for ordinal data.

Graph	Pearson	Significance	Spearman	Significance
1	0.714	<.01	0.705	<.01
2	0.00447	NS	0.0415	NS
3	0.129	<.05	0.142	<.05
4	0.399	<.01	0.374	<.01
5	0.500	<.01	0.482	<.01
6	0.576	<.01	0.581	<.01

Table 3- Correlation Coefficients

CONCLUSIONS, RECOMMENDATIONS, AND SUMMARY

Conclusions

The results of this research **begin** to provide empirical support to the claim that what one believes about origins affects his or her worldview. The word begin is emphasized as much more research is required to lay a solid foundation for this claim. It is noted that the mere existence of a strong correlation with an observed relationship is **not sufficient to show cause and effect**. However, the observations are sufficient to indicate the merits of further study.

Additional studies with other populations should show results consistent with this research. Integration of this study with other studies on origins and worldviews will continue to build upon the body of knowledge.

The study achieved all of its stated objectives. The survey allowed for the measurement of the subject's belief in creation or evolution. It also allowed for the measurement of the subject's moral views. Finally, the subject's creation/evolution beliefs and moral views relationship could be determined. The research hypothesis that there is a relationship between one's origins belief and his or her moral view is supported. The secondary hypothesis that the more one believes in creation, the more positive his or her moral views also is supported. On the specific questions of intimacy, there also appears to be a relationship at the later stages from heavy French kissing to intercourse in the expected direction. That is, the more the subject believes in creation, the less likely they are to accept these actions between two unmarried people as morally acceptable. Therefore, there is a relationship between the extent to which a person believes in creation or evolution and his or her moral views. While a relationship is shown, **cause and effect is not established**.

Recommendations

There are many opportunities for further study generated from this paper.

- This paper only analyzes the relationship between the average scores of origins belief and moral views. There are many other analyses that can be performed on the data. For example, none of the demographic data have been analyzed. An item analysis should also be performed on the data to determine the correlation of the individual item scores with the total-scale score [4]. Split-half reliability analyses should also be performed to provide additional confirmation of the internal consistency of the survey [4].
- The survey should be updated and improved based on the comments from the validators, the subjects, and the item analysis suggested in the first recommendation.
- The survey should be given to other groups to see if the observed relationship holds. Additional validation of the survey can be achieved by giving it to a group with known creationist beliefs to see if it scores them as creationists. A group of known evolutionists can also be tested.
- Additional studies should be performed to test the assumption that moral views are a reflection of worldview.

More research is required to determine if the observed relationship is a cause and effect relationship. Before and after studies or double blind studies may be used for this purpose.

Summary

Much research has been performed on worldviews and on creation and evolution belief, but very little research has been published on a combination of the two. Typically, surveys asked the subject's opinion about the teaching of evolution's impact on society. While many of the other studies may have the data to, at least, test the relationship between religious beliefs and origins belief through regression analysis, they have apparently not done so. No studies, other than Overman's preliminary study, have been found that attempt to test the correlation between the subject's belief in origins and his or her moral views.

A survey to measure the extent to which a person believes in creation or evolution and to measure a person's moral views was developed. A sample population of 1,126 names was obtained from the NSTA U.S. Registry of Teachers. One hundred were used for a field test of the survey with the remaining 1,026 used for the main survey. After the field test, it was determined that no additional changes were needed to the survey. The surveys were mailed and 313 were returned that could be used for analysis.

The results of the survey support the research hypothesis that there is a relationship between the extent to which one believes in creation and evolution and his or her moral views. They also support the hypothesis that the more one believes in creation, the more positive his or her moral views. Regarding the single issue of intimacy, the results showed that the more one believes in creation the more he or she views sexual intercourse between two people who love each other but are not married as morally unacceptable.

Recommendations include the need for changes to the survey to clear up ambiguity in some of the questions. Additional data analysis can also be performed since none of the demographic data was analyzed. Additional studies to verify the observed relationship and attempt to determine cause and affect are needed.

ACKNOWLEDGMENTS

Completion of this paper would not have been possible without help from many sources. I would like to thank the National Science Teachers Association for providing the names and addresses for the survey. Dr. Marlene Kovaly provided invaluable statistical assistance for which I am very grateful. I would also like to thank my mother-in-law, Maxine Shankle, for her proofreading help and encouragement. Special appreciation goes to my wife, Ginger, for her patience and wonderful editorial work. Her help with the bibliography and referencing was tremendous. Finally, many thanks go to the Institute for Creation Research for assistance in funding the printing and mailing of the surveys.

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NOMENCLATURE

Creation

"God's primal act of bringing the world into existence" [2]. The general tenets of creation have been developed by H. Morris [21].

Evolution

What we see today is the product of time, chance, and natural forces with no outside or divine intervention. The general theory of evolution begins with a primordial matter, includes the big bang and stellar evolution, then leads to biological evolution. From a biological perspective, evolution is "the idea that all of life has come from a common ancestor through a process of modification over time. Thus man and the apes are thought to have descended from an ape-like common ancestor. All vertebrates come from fish, which in turn come from a single-celled organism which arose spontaneously through natural processes, including mutation, natural selection, and genetic recombination" [23, p. 10]. The general tenets of evolution have been developed by the National Association of Biology Teachers [7].

Moral View

"A person's view of what is right and wrong" [2]. Moral views may exist on a continuum from positive (one that corresponds to the character of God as revealed in the Bible) to negative (one that is opposite to the character of God) [20].

APPENDIX

ATTITUDES AND BELIEFS SURVEY

Circle the appropriate number to indicate whether you agree with, disagree with, or are not sure about the following statements: PLEASE ANSWER ALL QUESTIONS

1=Strongly agree 2=Agree 3=Undecided 4=Disagree 5=Strongly disagree

- 1 2 3 4 5 1. Lying is sometimes necessary.
- 1 2 3 4 5 2. Evolution is scientific fact.
- 1 2 3 4 5 3. The Bible provides today's people with practical standards for living.
- 1 2 3 4 5 4. Each of the major kinds of plants and animals were made essentially as they appear today with only changes within species.
- 1 2 3 4 5 5. People may define "truth" in different ways and still be correct.
- 1 2 3 4 5 6. Space, time, matter, and energy have always existed.
- 1 2 3 4 5 7. Social drinking of alcohol is always wrong.
- 1 2 3 4 5 8. The stories in Genesis like Adam, Noah, and the Tower of Babel are historically true.

- 1 2 3 4 5 9. What is right for one person in a given situation may not be right for another person who encounters that same situation.
- 1 2 3 4 5 10. Biological life developed by a series of natural processes.
- 1 2 3 4 5 11. Euthanasia is wrong even if it ends suffering.
- 1 2 3 4 5 12. Evolution is neither a scientific theory nor fact.
- 1 2 3 4 5 13. In real life, there is no absolute authority.
- 1 2 3 4 5 14. Life evolved from a simple cell to more complex organisms.
- 1 2 3 4 5 15. Jesus Christ is the standard by which all truth is measured.
- 1 2 3 4 5 16. An eternal Creator supernaturally made the physical universe.
- 1 2 3 4 5 17. The best philosophy of life is: do whatever feels or seems right, as long as it doesn't harm anybody.
- 1 2 3 4 5 18. Absolute truth is that which is right for all people, in all places, at all times.

For two people who are not married but are both in love with each other and are willing, please indicate whether the actions described below are morally acceptable.

- 1 2 3 4 5 19. Hold hands
- 1 2 3 4 5 20. Embracing and some kissing
- 1 2 3 4 5 21. Heavy "French" kissing
- 1 2 3 4 5 22. Heavy petting
- 1 2 3 4 5 23. Sexual Intercourse

Circle the appropriate item (not the number) to indicate which apply to you:

24. Male Female
25. Education Level Completed: High School College Graduate Post-Graduate
26. Age: 19-25 26-30 31-35 36-40 41-45 46-50 51-55 56-60 61-65 66-70 Above 70
27. I attended high school at:
- a. Christian School
 - b. Public School
 - c. Private School
 - d. Home School