

**CREATIONISM AND THE ARMIES OF THE NIGHT
A RESPONSE TO DR. ISAAC ASIMOV**

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ABSTRACT

Modern society has an educational bias against the teaching of creation science in the public schools. One popular argument against creation science has been provided by Dr. Isaac Asimov. His argument rests on the notion that creationism is bad science and that creationists and creationism are a threat to national well being. The arguments advanced by Dr. Asimov are found to be seriously flawed. Based on the case presented, there is no reason to keep creation science out of public schools.

INTRODUCTION

Creationists have not done well in the attempt to have creation science mandated in the public schools of the United States. This paper will suggest one reason such attempts have failed and try to provide counter-arguments to an important paper opposing the teaching of creation science in the public schools.

Creationists are losing hope of convincing public schools to treat creation science as an alternative to evolutionary theory by means of the courts. The attempt to urge that equal time be given to creationism through the passage of "balanced treatment acts" is being abandoned by many creationists. In the November, 1989 "Bible-Science Newsletter" Paul Lysen, a member of the Society's board of directors, states, "Unfortunately, the legal arguments based upon equal treatment for creation and evolution in the schools will probably never again produce fruit in this country."(1)

Why did creationists fail to gain legal status in the public schools? There are several possible contributing factors to this problem. One potential answer suggested by Lysen was that, "With few exceptions, our countries' judges considered evolutionary science to be an undogmatic search for truth and creation science to be a defence of sectarian beliefs masquerading as science."(2) Some creationists have contended that judges enter the court room prejudiced in important ways against creation science.

If this belief is accurate, creationists have faced an important obstacle when they go to trial. This is not to imply there is some sort of conspiracy on the part of the evolutionary establishment and federal judges. A person may be prejudiced against a particular point of view without even realizing it.

Evolution is the scientific theory of choice in the educational establishment of the United States. A person who attends higher education in the United States, even in most religious schools, is taught the theory of evolution with little or no counter-arguments supplied. Unless the student is one of the minority who has a conservative religious back ground, he or she may never hear a cogent case made for creation. In the popular media, presentations on the topic of origins are almost always made from an evolutionary point of view. Programs that deal with creationism are not usually favorable to that point of view. Members of the establishment are likely to enter into a creation-evolution controversy with little scientific background, but with a great deal of pre-conditioning to view evolution as the only possible "scientific" explanation.

Let me stress that I am not suggesting any great scientific knowledge on the part of the legal and social establishment. To the contrary, in my personal experience, most educated persons who are not scientists are not particularly well informed about the evolutionary process. Evolutionists seem to be quite correct when they lament the general ignorance about the details of the evolutionary theory. What I speculate the average educated American does

receive is a belief in the truth of the theory of evolution and a belief that any counter-arguments are ill-founded or unscientific.

What has been the creation response to this situation? By and large, the creationist community has not been prepared to deal with it. Creationist scientists are not philosophers, and it is the philosophy of the establishment that has been the problem. Creationist publications that do respond within the sphere of philosophy are usually religious in outlook. Their rebuttals are suitable for their audience. They are not well designed for the majority of the judicial and political establishment that is not swayed by arguments based in religious beliefs.

Evolutionary arguments have been, and are being, successfully challenged on the scientific level. I would submit, however, that if the broader philosophic objections to creation are not met that any victories on the scientific front will be futile. A public that is not well informed about the details of evolutionary theory in the first place will not understand rebuttals to pieces of the theory. If creationism is to be taught in the public schools, the philosophical and educational arguments leveled against it must be answered. Only when creationists change the mind set of the educated classes in America do they stand a chance of achieving any sort of "equal time" in public classrooms. Creationists must rebut the attacks of the evolutionary establishment on the philosophical and educational level.

A prime example of the sort of argument that has been advanced against teaching creation in the public schools is provided by Dr. Isaac Asimov in his article, "Armies of the Night." Dr. Asimov is a popular writer of works of science fact and fiction. He possesses first rate writing abilities and a broad understanding of science. He is one of the nation's foremost scientists in the valuable field of making science understandable to the average layman. The writer of this article gained much of his early appreciation and understanding of science from books by Dr. Asimov.

The arguments advanced by Dr. Asimov in his article, "Armies of the Night", attempt to show that the creationist case is weak and that creationism is a threat to good science in the United States. I will demonstrate that both of these claims are not supported by his arguments. If the case against creation rests on Dr. Asimov's arguments, then creationism should be allowed in science classes.

Asimov's article has been widely influential in the educated public. It has appeared in the New York Times Magazine, college philosophy text books, and collections of anti-creationist writings. It is the type of argument that does a great deal to shape the public image of creation science.(3) By developing a counter-argument to this important article, I hope to begin the process of giving creationists the tools to change the mind-set of the educated American public.

FALLACIES OF ARGUMENT IN DR. ASIMOV'S ARTICLE

Dr. Asimov commits numerous fallacies of argument within his article. These fallacies are deeply embedded in the framework of Dr. Asimov's argument. I believe it is indicative of the over confidence and hubris of the evolutionary establishment that such flaws are permitted to pass unchallenged in the work of a widely read thinker. Asimov is guilty of at least two major logical fallacies.

Asimov constantly makes reference to the philosophical and political views of creationists in his case against creation science. None of this language does a thing to advance Dr. Asimov's case against creationism. The contention on his part that all (or many) advocates of creationism are religious, lacking in scientific training, or are political conservatives proves nothing about their arguments. An attack on a person is not a valid method for attacking that person's views. For example, the fact that a religious person develops a theory does not necessarily make that theory religious.

Examples of this sort of attack are found throughout "Armies of the Night." They include:

1. "They (creationists) make up a fervid and dedicated group, convinced beyond argument of both their rightness and their righteousness."(4)
2. ". . . creationism seems like a bad dream. . ."(5)
3. ". . . to lift the argument above the kindergarten level. . .(This is referring to an argument allegedly made by creationists and stresses the need for Dr. Asimov to elevate the argument.)"(6)
4. ". . . a renewed army of the night risen to challenge free thought and enlightenment. (Here Asimov is referring to creationists.)"(7)

These subjective opinions about creationists are nothing but *ad hominem* attacks, or they are

mere expressions of Asimov's particular likes and dislikes. In either case, they have no place in rational discourse.

Another, more subtle form of the *ad hominem* assault in this article is an attack on the theory of creationism based on the sort of society that Asimov believes might develop if it were allowed in the public schools. If creationism is allowed in public schools says Asimov, "We will inevitably recede into the backwater of civilization and those nations that retain open scientific thought will take over the leadership of the world and the cutting edge of human advancement." (8) In Darwin's day creationists were rightly ridiculed for saying evolution should not be believed because the results of such belief would be detrimental to society. Evolutionists correctly responded at the time that it was better to base society on a harsh truth, than a comfortable lie. It is clear that Asimov falls into the same trap of these old creationists in his modern criticism of creationism. Unless he assumes that creationism is not true, the argument that teaching it will "ruin society" is of no consequence.

Creationism is either a good theory or a bad one when weighed against scientific evidence. It would not matter scientifically if creationism produced bad people and threatened democracy in America. Speaking of creationists Asimov says, " (their) loudly expressed patriotism is as simple-minded as their science", and then argues that such simplemindedness will lead to the end of American greatness, he is not engaging in thoughtful analysis. This is not the language of rational discourse.

Of course Asimov will claim that he has demonstrated in his article that creationism is bad science. The question then becomes, "Assuming Asimov has shown creation science to be false, does his further attacks on its societal implications have worth?" On the surface it seems that they would. It might be argued that there at least three types of false ideas. One type might have some sort of benefit for the society that believes it. The second type of belief would be false but harmless. The third type might be false and dangerous to the society that believes it.

Asimov might accept the notion that creation science is the third kind of false idea. Not only is creation science false, but it is a dangerous illusion for society to allow in its schools. Such an argument might rescue Asimov from at least part of the charge of using the *ad hominem* attack. This view, however, faces a serious difficulty.

Asimov does seem to believe that creation science could end up triumphing in the public arena. He implies that such an outcome would be negative. When he argues for it, he argues from two basic assumptions. The first is that creationism is false. The second is that the establishment of a "powerful orthodoxy which dictates official thought," would lead to disaster in our nation. He uses some specific historical examples to support this claim. (He does not demonstrate that creationists actually desire to impose this orthodoxy on America.) Later in this article I will attempt to demonstrate that the historical examples used are not valid analogies with creation science.

But even if we grant Dr. Asimov all the historical examples he might suggest, does this support any new claims against creation science? It does not without granting further premises. Asimov's argument runs something like this:

- a. Creationism establishes an orthodoxy in America.
- b. All orthodoxies are bad for a nation (as demonstrated by assorted historical examples).
- c. Therefore: Teaching creationism is a threat to American well being.

Even if we grant Asimov his first premise, and the examples in his second premise, what would lead a person to grant the truth of premise "b"? "Orthodox" simply means "conforming to a standardized doctrine." (9) There does not seem anything frightening about that. Without basic agreement on certain cardinal facts (the law of non-contradiction, the laws of mathematics), social life would be made much more difficult. It is difficult to imagine a society being harmed by universal agreement to the law of non-contradiction.

Perhaps Asimov might change premise "b" to read, "All forced orthodoxies are bad for a nation." He could then adjust "a" to, "Creationism seeks to establish a forced orthodoxy on America." But is it clear that "b" is an improvement? Asimov seems to advocate only allowing the teaching of evolution in the schools. Is this not forcing a creationist teacher to conform or to get out of teaching? Asimov's only response would seem to be that unlike the laws of mathematics, the laws of contradiction, and the theory of evolution, creationism is false. Premise "b" could be changed to read, "All false forced orthodoxies are bad for a nation." This seems fair enough, but requires the addition of premise 1' to complete the argument:

- 1'. Creationism is a false orthodoxy.

Why should anyone accept this new premise? Asimov gives the reader reasons for thinking creation is false earlier in his article. It has already been stated as a "truth" independent of this argument. The belief that the societal impact of creationism would be harmful ends up depending on the demonstration that creation science is false. Short of polemic value, then, the idea of societal destruction adds nothing to Asimov's case. The presentation of the notion is riddled with ad hominem attacks on creationism. It makes only the vacuous and uninteresting claim that if creationism is false, forcing persons to believe it would have a detrimental impact on the persons and the nation involved. Almost the entire last page of a nine page article adds nothing to the argument.

The second weakness of the article is the use of the "straw man" fallacy. In the straw man argument, a person uses a weaker form of an argument advanced by an opponent to attack the initial argument. This weak argument is easy prey for the critic and creates the illusion that the actual argument has been refuted. The actual argument may contain subtle differences that would make such a quick refutation impossible.

One of the straw man arguments that Asimov creates in this article is his exposition of the creationist's views on the Second Law of Thermodynamics. Asimov argues that the creationists reject evolutionary thought based on a false view of the Second Law. He says the creationist view is a "kindergarten" approach to the Second Law. He says, "Unfortunately, the Second Law is a subtle concept which most people are not accustomed to dealing with, and it is not easy to see the fallacy in the creationist distortion."

What is the creationist distortion? According to Asimov, the creationists fail to recognize that the Second Law applies to closed systems. The universe might be considered such a "closed system." However, Asimov correctly points out that there are "subsystems" where outside energy may cause an increase in complexity. The solar system is such an open system.

Is this a fatal blow to the creationist argument? An article by Dr. Duane T. Gish appears in the same philosophy text as "Armies of the Night." In it, Dr. Gish states, "The usual, but exceedingly naive answer given by evolutionists to this dilemma is that the Second Law of Thermodynamics applies only to closed systems."⁽¹⁰⁾ He then goes on to present the actual problem. It is not important for my purposes to repeat the argument offered by Gish. It is important to note that Gish does not fall into the error that Asimov claims for creationists. Asimov has created a creationist of straw and blown it away.

Asimov might respond by pointing to some given piece of creationist material that contained the misunderstanding. This will not do, however. There is a recognized principle of charity in all fields of research and argument. One is supposed to argue against the strongest possible case one's opponent makes. It is no good finding some crackpot creationist, and there are crackpot creationists, and arguing against him or her. That would not defeat creationism, as Asimov is trying to do, but merely expose one crackpot. Nor would it do to point out errors made by a leading creationist on some point where the creationist in question has retracted the error. To defeat creationism one must (and ethically one should) argue against the best creationist case. This Asimov has not done with the Second law of Thermodynamics argument. He is guilty of committing a serious fallacy.

These are not the only two fallacies of argument that Asimov commits. They are two of the most obvious. Remove these from his article and the length, and seeming force, of the arguments, would be greatly diminished. But what of the arguments themselves? Stripped of their less-than-rigorous language, do the arguments advanced by Asimov against creationism work? I will exam several of these arguments to see if they have merit.

A FLAWED ATTACK ON THE DESIGN ARGUMENT

Dr. Asimov attempts to demonstrate that the creationist "argument from design" cannot work. To reduce the argument to a sentence (with all the dangers inherent in doing so) it says, "design points to designer." Dr. Asimov introduces this argument from the famous "watch and watch maker analogy". He makes a subtle and important change in the argument while he presents it. Asimov shifts the argument from design to complexity. He quite correctly points out that complexity does not make it necessary to believe in God. He says, "In short, the complexity of the universe- and one's inability to explain it in full- is not in itself an argument for a Creator." The question for Dr. Asimov is, "Whoever claimed that it did?"

Complexity is not the issue that is at the crux of the argument from design, nor is the knowledge of the human race. The issue is design. Is there design in the universe? If there is, then there must be a designer (or so the argument goes). The universe could be very simple, but if it showed design, then the most plausible interpretation would be a Creator. Complexity is not a necessary feature of a designed thing. Sometimes the most simple or elegant items show the most evidence of their creator's hand. Asimov's rebuttal of this

"argument from complexity" does nothing to the argument from design.

What does the state of human knowledge have to do with all this? It is clear that Asimov believes the argument hinges upon the belief that many "aspects of the universe. . . cannot be explained satisfactorily by science". Asimov appeals for us to have faith in the eventual ability of science to answer all such questions. He seems to believe that if we trust that science can (or will) answer all such questions, that the argument from design will be refuted. But why is that so? If I fully understand the workings of the watch that I find in the desert, does that argue against it being a human artifact? It is the design of the watch that points to its creator not my lack of understanding of the same watch.

Understanding might increase appreciation of the design. Imagine a New Yorker who picks up an alien artifact left by some voyagers from outer space. He sees no design in the artifact. It has been built to look like a random product of the streets of New York. He understands nothing about the use of this artifact. He will not believe, and would deny, that it was a created object. Suddenly, in a flash of genius (or cosmic insight), he sees the total purpose of the artifact. He understands its function and how it was built. Let us even imagine that he understands everything there is to understand about that artifact. Far from leading him away from a belief in a designer, his knowledge will lead him to that belief. He has total knowledge about the artifact and still believes it was designed. Human ignorance is not needed to see design. In this hypothetical case, it impeded seeing design.

This is a clear confusion on Asimov's part. If the human race understood and could explain every aspect of the cosmos, and then saw design in that understanding, then it would point to a designer. It is also important to point out that this is an argument for the plausibility of a Creator, not a proof of His existence. Asimov has misunderstood, or intentionally misconstrued, the argument.

There is one final thing that can be seen from Asimov's attempt to rebut the argument from analogy. Asimov here argues that the fact that science cannot explain some facet of the universe should not be held against it. (In another section of the article Asimov applies this same sort of dodge to the theory of evolution. Problems? Yes, but we will solve those "soon".) The public should give the scientist more time to find the answers. (The use of time as the means to solve all possible problems is one that is familiar to the evolutionist.) Asimov has created a non-falsifiable belief system. If one were to point out a problem, then Asimov could argue that it will be fixed someday. What would argue against the system? Assuming it is logically consistent (and that is probably going to be the case in most theories at this level of maturity), if one is given unlimited time to solve any "problems" with the theory or system, then it will be impossible to reject the system. The theorizer or system builder can always appeal to the answers of "the next day". It is hard to argue against "tomorrow's answer". He will never be wrong, never without an answer.

RELIGION AS AN ARGUMENT AGAINST CREATION

Asimov makes a great deal out of the religious views of creationists. He seems to feel that they are important to his case against allowing creation to be taught in the public schools. I have demonstrated that this use of the creationist's religious views could be construed as the ad hominem fallacy. Is there a more charitable reading of Asimov?

Dr. Asimov might counter that in these areas of the article he is not concerned with the theory of creationism but with the creationists themselves. He admits in his article that he does not take the scientific arguments for creationism seriously. In the area of science he says, "creationists have clearly lost". His attack might be centered on showing that creationism is held only for philosophical/religious reasons. He could then move on to oppose the tax payer subsidizing creationism because of its religious/philosophical nature. If this is all that he is doing, then his attack might escape the charge of being ad hominem. Perhaps his appeal to the type of person that is a creationist ("those impervious to. . . reason") is legitimate because he is arguing that the creationist is of necessity bound by certain non-empirical philosophical constraints (like the belief in God). The character and nature of the creationist might be relevant in building such a case. This case would not show that creationism was false, but it would show that creationism was not "empirically based" like evolution. It would also be a reason for excluding teaching of creationism from government sponsored functions.

Asimov must be careful; however, if the focus of his attack is not science, but a claim about the philosophical presuppositions of creationists. He must not argue against creationism using his own philosophical system or argue for evolution with philosophical language. If he contends for evolution based on a particular world view, then his argument to keep creationism "out" of the public arena, and to keep evolution "in", is doomed. (Suppose, for example, Asimov believes that the necessary philosophy behind creationism is counter to democratic

ideals. This does not argue that creationism is not true scientifically. He might be arguing; however, against the philosophy and methodology that goes with creationism.) His argument against creationism in the public arena centers on his belief that religious/philosophical points of view should not be encouraged by government. He advocates the teaching of evolution (exclusively) in one government project: the public schools. To be consistent then, he must not argue for evolution using data that fits only if one particular philosophic frame of reference is adopted. He must not use data, interpreted first through his own philosophy, show the creationists to be unreasonable "religionists". Religion can not be excluded for the benefit of secularism. Secular philosophic notions have no more right to government monopoly, than theistic ideas. Asimov cannot reject creationism for being unscientific (because of its philosophic presuppositions) using data filtered through the secularist philosophical world view.

Are some of these attacks on creationism based on secularist assumptions? They are: for example, Asimov describes the world shown by science as, "an enormous universe ruled by chance and impersonal rules, empty and uncaring, ungraspable, and vertiginous." (11) Does the data of science show this or does Dr. Asimov's world view present this interpretation of what the data shows? Take for example the use of the word "uncaring" to describe the universe. How did Asimov reach this conclusion scientifically? Does postulating the Law of Gravity, or any other scientific notion of how the universe operates, entail this description? One can hardly imagine a scientist's saying, "By gum, the lead weight fell; therefore, the universe is an uncaring place." The question of whether the universe is a caring place would be a part of metaphysics not physics because it describes a non-observable quality of physical phenomena. What would be the scientific test that Asimov would propose to give the universe to see if it is a caring place?

The metaphysical interpretation of scientific data is the realm of philosophy. The theistic scientist can look at the same data, as they do, and say, "The lead weight fell; therefore, the universe is a caring place." based on their world view. Both the theist and the non-theist would be justified in their claims based on their world views. Neither claim is; however, scientific. Dr. Asimov is simply objecting to a certain philosophic interpretation of scientific data. He sees the universe as "uncaring," the theist sees it as a caring place. Most of the terms' that Asimov uses to describe creationism, and to pigeon-hole it, show only a distaste for conservative Christianity based on a secularist world view.

What does this mean? "Freedom of religion" in the United States Constitution does not mean that the religious are forced to be still in public places, so that the philosophically secular can dominate. There must be no preference in government for the religious over the secular or the secular over the religious. If Asimov is merely making the secularist case, then he is making no case at all in terms of public discourse. His secularist arguments must be silenced or the religious must be allowed equal time. His argument against creationists as inherently religionist shows only that if creationism is excluded for the reasons Asimov gives, then evolution must go as well. The evolutionist that can be created by extrapolation from Asimov's paper is a creature dependent on secularist assumptions for scientific theory. Asimov's attack on creation from religion cannot succeed without destroying the grounds for his arguments for evolution.

ASIMOV AND HISTORY

Asimov uses historical examples to buttress his arguments against the teaching of creation-science. I would like to suggest that Asimov abuses history. First, his view of human history is flawed, tied up in an evolutionary view of human intellectual progress. Second, his historical analogies are very questionable.

What is the flaw in Asimov's view of history? Asimov indulges in what C.S. Lewis used to call, "chronological snobbery". This is the belief that one's own age is somehow superior to all the ones that have come before and that anything from another age is therefore, suspect. He talks about "pre-scientific human beings" in a way that shows his low opinion of them. He points out that these same humans (who might have "stoned" faithful scientists like himself) believed many things that modern creationists believe.(12) He seems to hold that the age of an argument is somehow relevant to its truth.

Why is that? Do arguments deteriorate with age? No, truth is constant. The Law of Non-Contradiction in logic is true, even if the ancients did believe it.

Asimov would be hard pressed to defend the notion that our age is the wisest and best of all ages to this point. For every victim of "pre-scientific" ages, there are one hundred or more in the gas chambers of Auschwitz or the gulags of Russia in our own age. These were not the works of pre-scientific, or even religious, persons. Our age has no special monopoly on truth or error. Asimov seems to believe the modern age is enlightened in some special way, but he

does not argue for this questionable notion.

Dr. Asimov's misuses of history do not stop with his "chronological snobbery." Asimov uses many questionable historical analogies. He seems to assume that creationists want to impose their views on the nation.

What are the flawed historical analogies of Asimov? He uses as historical examples of the imposition of "orthodoxy" sixteenth century Spain, seventeenth century France, fascist Germany, Communist Russia, and Communist China. He cites how each nation adopted an "orthodoxy" that ended up costing scientific advancement in that country. Each of these historical examples are questionable.

He points to Germany losing a scientific edge that it once had because of the imposition of the orthodoxy of ideas. This forced orthodoxy was under Hitler and Nazis. There are two problems here. Hitler is given the blame for the failures of the Nazi scientific machine. Asimov does not demonstrate, however, why Hitler should not be given credit for its' considerable successes. He has not taken the time to demonstrate a clear causal connection between the evil actions of Hitler and the failure of some portions of the German scientific program. Having failed to do this, he then gives no reason to think that if such a connection could be established, that a similar connection could not be found between the evil acts of Hitler and German scientific success. The second problem for Asimov is the nature of the German state before the Nazi terror. Is Dr. Asimov implying that Germany was ever (before the Weimar Republic) a "free and open society"? Bismark's Germany has never been accused of being an overly liberal society. Germany had an edge, before the Nazis took power, in science, according to Asimov. If the governments of Germany before the Nazi were all conservative, lacking Asimov's cherished freedom of thought, then when was this edge gained?

The Soviet Union imposes a fierce orthodoxy on its people but could not be called scientifically backward. Despite the ravages of Lysenko, Soviet science has produced great scientific achievements under the most rigorous ideological controls that could be imagined. The orthodoxy of Lysenko has slowed some sciences it is true, but what of the orthodoxy of Marxism? Would scientific progress have been faster with no imposition of orthodoxy? Asimov has not proved this.

There are also potential historic counter-examples to Asimov's claims. One example is the Puritan communities of England. The Puritans, not greatly loved by civil libertarians, were great friends to the sciences. According to the Oxford History of Britain ". . .the scientific establishment were lionized by the Puritan politicians. . ." (13) The religious orthodoxy of the time did not prevent men like Boyle from making great scientific advances. Asimov's case is not as clear as he would like to make us think.

CONCLUSION

These are not the only arguments presented by Asimov, but they are at the core of his program. If even one creationist argument stands, then there is something of great interest for the students of American public schools to study in it. It means that after one hundred years of Darwinian orthodoxy, there is still plausible counter-arguments to the theory of evolution after the assault of Asimov.

Should creation be studied in public schools? I believe the answer depends on whether creation scientists have anything to say that is worth hearing. Creationists are a large segment of the American community. They pay taxes. If they have something to say that is scientifically or philosophically interesting to say, then fairness would argue that they be given a hearing. Asimov has failed in his attempt to discredit numerous positions of the creationists. Based on an analysis of his arguments at least, the creationist position seems strong enough to merit inclusion in the public science program.

Might it not be claimed that one should wait for another, more scholarly attack on creationism? It is certainly the case that when one is found that creationists should welcome it and respond to it. The bad old days of the Asimov type attack should not be held against some future, more rigorous defenders of the theory of evolution. Otherwise creationists would be guilty of the same errors of argument as the evolutionists.

The failure of the evolutionary establishment to "knock out" creation science in the first assault (at least in the case of Dr. Asimov), is itself a powerful argument for its inclusion in the public school curriculum. If the creation science debate becomes an ongoing academic "back and forth", then this is the very sort of thing that students in schools should be exposed to at the earliest possible age. Most "quasi-scientific" ideas, such as the Chariots of the Gods style theories, fail to survive their initial conflict with the establishment. In a few years they have disappeared into scientific obscurity. Creationism, with its hundreds

of scientists, has survived the initial assault. Until it ceases to be a significant part of the scientific dialogue through effective rebuttal, it should be included in public school curriculum.

While creationists wait for that day to come, they most work to counter-act the establishment perception that creation science is a dead issue. Creationists must expand their visibility at all levels of the academic community, so that when creation does begin to win its first grudging bits of "mainstream" scientific respect, it will not be faced with a hostile non-scientific establishment.

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