

Summary

Thesis: The theory of evolution is a better rationalization of life than intelligent design.

Argument:

- a) Intelligent design is a “God of the gaps” theory, it cannot be disproved without disproving God, science may one day fill the gap in knowledge about the origins of life as it has filled other gaps in the past;
- b) Further elaboration of the “God of the gaps” idea; intelligent design has no evidence and is a stopping point, discussion of black boxes and how science seeks to open the black box of the origins of life;
- c) Incompetent designs in nature run counter to intelligent design; example of the panda’s thumb, evolution is survival of the sufficiently fit, not fittest;
- d) Over-complex systems and useless parts of organisms are incompatible with intelligent design, example of the blood clotting cascade and the tailbone.

Conclusion: Evolution is a superior theory because of its overwhelming scientific evidence; intelligent design is insufficient because of its reliance on faith.

Style and Structure

You have done an excellent job structuring your paper. At the end of the introduction, intelligent design is characterized as a “God of the gaps” theory, and this idea is elaborated on in the first two body paragraphs. Irreducible complexity is addressed next (in the intro) and the last two body paragraphs attack Behe on this point. You did a good job of taking the reader through your arguments and to your conclusion.

Simple sentence structure and vocabulary is an effective strategy to drive your point home. The paper is not abstruse; there is no “beating around the bush” and ideas are presented clearly and efficiently. Some sentences repeat the same word several times, such as “...why this inefficiency occurs, while intelligent design (purposely designed inefficiently)..” Another example: “A tail in unnecessary for humans and therefore unnecessary to be placed in the design process for human function.” The words “design,” “create,” (and its variations such as created) and “parts” are overused. I realize that it is difficult to find synonyms for some of these words, but the repetitiveness is notable and it detracts from the writing. I liked the usage of rhetorical questions. Quotes and citations are used well.

Thesis and Arguments

The title sets the stage for the simple thesis: That evolution is a better “rationalization for life.” I give you credit for taking on such a large topic and being able to whittle it down to a three page paper. The thesis could potentially allow the author to be way too general and thus leave the reading reeling and unconvinced about anything, but you do not do this.

However, I feel that you aren't addressing the heart of Behe's argument: That certain biochemical processes are so complex that they defy a step by step, evolutionary explanation. Your only real mention of irreducible complexity is in body paragraph 3, in which you discuss the blood-clotting mechanism. The argument that there are "way too many pathways" is inaccurate at best. Behe makes it clear that there is only one way in which the amalgam of proteins, proenzymes, and enzymes can work together, one after another, to form the clot. There are two ways in which Stuart factor can be activated (the intrinsic pathway and the extrinsic pathway) but other than that all the parts work together in a single cycle. And besides, each pathway is smaller cascade of different interactions between proteins and enzymes, if indeed the blood-clotting procedure is irreducibly complex, the presence of these components would only bolster Behe's proposal.

In some situations I think you are misreading Behe and attacking more of a Creationist viewpoint. In the introduction to *Darwin's Black Box*, Behe explicitly says that he does not support this theory. You argue that an intelligent designer would have never given a panda such an inefficient thumb that causes it to spend excessive time stripping bamboo stalks for food. Intelligent design takes a look at life on the *molecular* level, not on the macroscopic scale. This would be a point of debate with the creationists, and you even mention that in the beginning of the paragraph. Focus on intelligent design; you are drifting from the definition that Behe defined and the one we have used in class.

Furthermore, you use two sentences to discuss the evidence for evolution. I recognize that you are attacking Behe's argument, but a discussion (rather than just naming) of some of the evidence would make your argument much more convincing. If the evidence is overwhelming and it is so clear that evolution is a "greater rational for life," then why don't you show us? There is sufficient space for more explanation.

Specific Suggestions

Intro:

- "The theory that life, or the universe, cannot have arisen by chance..." -Just out of curiosity, I looked for a definition of intelligent design in several dictionaries and was unable to find one. In this class and in Behe's book, nothing is mentioned regarding the origin of the universe. You may want to remove this part of your definition.
- It is interesting that you mention more researchers for intelligent design than you do for evolution. Maybe add a couple more to prove your point that evolution is a superior theory?
- What are "hybridization" and "the differential survival of replicating entities?" It seems like you are trying to justify evolution by overwhelming the reader with complex scientific terms (something Behe does as well). If you are going to introduce such terms, at least identify them.

Body:

- "Intelligent design has no scientific evidence.." -As we discussed in class, while there is no way to test for ID, there is also no way to test for evolution. Think about addressing the counterargument that observation of intelligent design in biochemical processes (irreducible complexity) is analogous to observing genetic similarities and

- the small changes in the colors of a moth over generations. Furthermore, ID's arguments, especially those enumerated in Behe's book, are completely based off of biochemical findings. To say that they have no scientific evidence is false.
- "Previously, angels were believed to have pushed the planets..." -How about "Previously, it was believed that angels pushed the planets across the universe."
 - "...this also weakens" –delete the comma in this sentence and just have it read, "Incompetent designs in nature also weaken..."
 - "...hands-on creator who created" –further repetition discussed in the arguments section, try changing the second verb.
 - "specie" –change to species.
 - "over-complex" –no hyphen needed here.
 - "...parts and patterns..." –I'm not sure if these are the best terms to describe a biochemical process; consider telling the readers what the components of the cascade actually are: proteins, enzymes, proenzymes, etc.
 - "...too many pathways and some pathways..." –just delete the second "pathways."

Conclusion:

The conclusion is well written and no changes need to be made.