

# The proof behind darwin's claims: a rhetoric of research and transformation



**ASSIGN  
BUSTER**

The idea of what constitutes legitimate scientific proof is one that is subjective and varies from one circumstance to another, but compiling various types of evidence to support a claim has long been an accepted, respected, and even encouraged means of accurate testimony. The concept of mass accumulations of strong evidence as a means of proving a point is one explored repeatedly throughout Darwin's *On the Origin of Species* as Darwin builds a case for and defends his theory of evolution and the topic of natural selection. Darwin's way of presenting and re-presenting his evidence works as a way of establishing meaning in his work as he emphasizes the importance and relevance of his discovery. He accomplishes this task through detailed and constant repetition of his findings while also attempting to secure the confidence of his readers using his collection of examples on various species and the changes he had observed in their expressed features over time. This method of explanation in which new evidence is frequently given, however, is a necessary part of this specific scientific abstract as a method of not only substantiating Darwin's argument and technical claims on his theory of natural selection but also as a means of maintaining current information on a topic that is constantly in the process of change.

To begin, Darwin was the first of his time to publish research on this particular topic of the evolution of species and for this reason was unable to draw from the research of other scientists, making it important for Darwin to establish trust between himself and his readers. Not only this, but his research was composed almost entirely of observational study as opposed to experimental for the fact that evolution is extremely difficult to capture in one's lifetime as it can take multiple generations of a species for the new

traits to become visible. Darwin recognizes that what he is trying to capture and understand is a world in motion and that therefore his theories must be somewhat flawed as he states, “ This Abstract, which I now publish, must necessarily be imperfect. I cannot here give references and authorities for my several statements; and I must trust to the reader reposing some confidence in my accuracy. No doubt errors will have crept in, though I hope I have always been cautious in trusting to good authorities alone” (Darwin, 2). Darwin recognizes that most of the evidence he can offer to his readers is not strong evidence in the sense that it has the possibility of being incorrect and does not provide direct proof of his discoveries on evolution. As something that can only be seen after the course of many generations worth of time, achieving proof of evolution and natural selection upon immediate observation is impossible. It is a process that takes patience and many years of close surveillance research. Darwin counters this by relaying as much information on the topic of his findings as possible. He gives meaning to and creates a convincing thesis by building a more or less undisputable compilation of facts surrounding the topic.

Furthermore, Darwin asks his readers to believe his scientific claims based on good faith, but only through sufficient presentation of evidence of his claims will he be able to truly convince them. In order to validate his arguments he acknowledges that he must provide as much evidence pertaining to claims for and against evolution as possible as he admits, “ No one can feel more sensible than I do of the necessity of here-after publishing in detail all the facts, with references, on which my conclusions have been grounded [...] A fair result can be obtained only by fully stating and

balancing the facts and arguments on both sides of each question” (Darwin, 2). Through this statement, Darwin is showing his recognition of the fact that blind assertions cannot serve as legitimate proof and that this alone would not be enough to convince any of his readers of the truth behind his findings. He strives to give the reader as much evidence as is possible which is proven by his statement, “ My work is now nearly finished; but as it will take me two or three more years to complete it, and as my health is far from strong, I have been urged to publish this Abstract” (Darwin, 1). This abstract, however, comes to 490 pages in length and contains numerous detailed examples of his findings and observations in addition to the analysis of said findings that led to Darwin's theories. Even as an incomplete version of his discoveries, *On the Origin of Species* makes a very convincing argument in the evidence it presents. Thus, Darwin's way of presenting and re-presenting his information establishes meaning in the sense that it allows for his discoveries to be seen as both significant and accurate and therefore hold meaning with his readers as well as convince them of the truth behind his findings.

In addition to this, Darwin recognizes through his research that evolution of species is something that occurs constantly and that for this reason, no matter how much evidence he provides, the organisms of the earth will always be in flux and that he therefore must be able to provide a large and continuous compilation of proof of his theory. Darwin states, “ Owing to this struggle for life, any variation, however slight and from whatever cause proceeding, if fit be in any degree profitable to an individual of any species, in its infinitely complex relations to other organic beings and to external

nature, will tend to the preservation of that individual, and will generally be inherited by its offspring. The offspring, also, will thus have a better chance of surviving" (Darwin, 61). In this Darwin is addressing the fact that advantageous traits, no matter how small, will aid the species to the age of reproduction and thus aid in the passing down of said trait. Through this it is implied, however, that the changing of species happens gradually and continuously throughout time and that the proof being provided for such adaptations must change and build over time as well, thus signifying the importance of accumulation of mass evidence.

On the same note, species change over the course of time as a result of out-competing one another and it is essential for the support of the theory of evolution that any adaptations be documented. As the world around the species changes in terms of climate, space, potential predators, and food availability, the ideal traits for them to express also change, meaning they can never reach a state of perfection and that therefore must face what Darwin calls the struggle for existence as he states, " Nothing is easier than to admit in words the truth of the universal struggle for life, or more difficult [...] than to constantly bear this conclusion in mind" (Darwin, 62). He recognizes that living organisms are not immutable and are thus the objects of constant transformation. As the theory of evolution is one based on the constant changing and mutability of physical traits, it is essential that the evidence to support it also varies and changes with time. Here, the presentation and re-presentation of evidence is essential as a method of creating meaning in Darwin's discoveries in that in order for the theory to remain relevant and accurate as well as to prove the theory of natural

selection as a whole, evidence must be collected and presented over a period of time in various different ways.

The way in which Darwin elects to present and re-present his observational discoveries throughout the text *On the Origin of Species* is a necessary part of giving meaning to his work. Darwin uses such a method as a means of verifying his claims and argument for the theory of natural selection as well as to gain the support and trust of his readers on a topic that without scientific evidence would appear outlandish. Not only this, but as the theory of evolution supports that the physical characteristics of species are in constant flux it is important that the evidence for such a theory follow and document the changes over time in order to remain accurate and relevant, thus resulting in a mass accumulation of evidence. Darwin makes up for the fact that he is unable to provide absolutely undeniable experimental proof of his claims by providing as much information on his discoveries as possible, thus showing the seriousness of the implications of his work as well as creating a convincing argument.