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Charles Darwin's voyage on the HMS Beagle was completed in 1836, and he began to formulate his theories on evolution and natural selection at that time. By the year 1844, he had sketched out what he considered the "probable" conclusions or his arguments (Darwin 95). Surprisingly he did not publish his first work on the matter, *The Origin of Species*, until 1859. The delay can be partially understood due to Darwin's wish to complete his research and flesh out his theories, but was also in part because of Darwin's own anxiety over the controversy he knew they would provoke. When Darwin did finally present his ideas to the public, it was his own understanding of their revolutionary nature that allowed him to minimize those qualities in his writing and convince others of his theory's correctness. In this initial introduction to his theories, he was forced to deal with both religious resistance and emotional resistance to his ideas, but he manages to overcome these opinions by both attacking them head-on and using his own humble conviction to persuade. Through an examination of the methods Darwin used to show his awareness of the newness of his ideas and yet strip them of radicalism, it is possible to see how greatly those methods contribute to the eloquence of his arguments.

Darwin's reluctance to publish is not the only way that he shows his awareness of the controversy surrounding his theories. In the introduction to *The Origin of Species*, he steadily chronicles the length of time it has taken him to arrive at his conclusion offering the dates above. He states his purpose for this very clearly: "I give them to show that I have not

been hasty in coming to a decision" (95). He then goes on to write about what has changed that allows him to now feel that he can present his theories, mentioning that his "health is far from strong" and he has "been urged to publish" by such distinguished men as Sir Charles Lyell and Dr. Hooker (95). He also mentions that a Mr. Wallace had arrived at similar conclusions and was preparing to publish them (95), so there was likely also some fear of being scooped influencing his decision. When one considers the fact that Darwin felt the need to immediately use the first two paragraphs of his work in almost direct defense of it, there can be no doubt that he recognized that there would be those reading it with pre-conceived opinions in opposition to it.

The third paragraph of his introduction continues in a similar vein. It offers an understanding on Darwin's part that this work is only an "Abstract" which "must necessarily be imperfect" (95). He admits that "errors will have crept in" and not all of his arguments will have the full facts or references justifying them presented, but hopes to do this in a future work. Again, Darwin shows a large amount of humility in calling a book that approaches 500 pages a mere "Abstract" (95). This and his other comments recognizing the work's imperfections serve to take the wind out of his opponents' sails and preemptively discourage any nit-picking behaviors on their part. He is also careful to note that there are holes in his theories that are visible even to him.

The issue of gaps in the fossil record upon which much of his theory was based is one of many that he took care to address. Because his theories argue that there must have been almost "an infinitude of connecting links, between the living and extinct inhabitants of the world, and at each successive period between the extinct and still older species" (160), it raises the question of why there is not plain evidence of each of these different mutations in the fossil record. In his defense, Darwin recognizes that the only way he can combat this objection is "on the supposition that the geological record is far more imperfect than most geologists believe" (160). The facts as he presents them being that fossils are only preserved under certain specific circumstances and that, as "only a small portion of the world has be geologically explored" (161), it is also likely that many fossils remain unrecognized or undiscovered. He also confronted other issues such as a lack of understanding with regards to the methods of heredity (genetics) and "the existence of two or three defined castes of workers or sterile females in the same community of ants" (158), but in each case he did his best to master the difficulties presented him:

> That many and grave objections may be advanced against the theory of decent with modification through natural selection, I do not

> deny. I have endeavored to give them their full force. (158)

These lines are part of the opening to Chapter XIV where he attempt to summarize and restate arguments made earlier in the text. That he does not leave it to his opponents to criticize the work, but begins each time with his own criticisms forces his opponents to initially agree with him and approach the work from within his view of it.

Another way Darwin disarms his opponent is that he writes in such a way as to remove the stigma of being innovative or revolutionary from his ideas. There is no disputing the fact that Darwin's ideas are both of these things, but he is careful to take away the negative associations that would cause them to appear radical or unnatural. This is best accomplished by the way he makes it seem as if any rational person when presented with the same information would come to the conclusions; in fact, he is even able to use Mr. Wallace as an example of someone who has (95). Other times he uses phrases such as "no one ought to feel surprise" (97) and expresses things with the assumption that they are practically self-evident. There is also a sense in Darwin's writing of suddenly seeing things from a different perspective and having everything click into place. This feeling emerges in a way that is extraordinarily reminiscent of the childlike discovery and awe, which accompany one's first understanding of the magnificent balance and symmetry inherent in our world.

The fact that he writes in the first person as if expressing his own humble opinion does much to further his cause. Rather than building up his ideas with grandiose language or claiming that his ideas are going to change the world, he states his opinions simply and with less drama then they have shown themselves deserving of. Observe some of the language he used in the introduction:

> These fact seem to me to throw some light on the origin of species… it occurred to me that perhaps something might be made out on this question by patiently accumulating and reflecting on all sorts of facts which could possibly have any bearing on it. After five years work I allowed myself to speculate on the subject and drew up some short notes; these I enlarged… into a sketch of the conclusions, which then seemed to me probable. (95)

At a time when one would normally want to make what is to follow seem as thrilling as possible, Darwin purposefully uses language that makes him seem reluctant, shy and even demur. It builds very little expectation for the extraordinarily complex and almost fully fleshed work that the reader will actually be faced with. When one does come to realize what Darwin is actually giving one, that sense of it being beyond expectation and astonishing is much more powerful than if he had set up the text as a great revolu-

tionary work and then disappointed the reader by only meeting or even failing to meet what was anticipated. Darwin's ability to use his opponents expectations against them does much in the way of disarming his opponents and his idea of the pre-emptive attack is exceedingly useful for anyone presenting an idea which they know will be met with controversy, especially when one is not aware of what precisely his opponents will attack. Where Darwin was aware of the specific complaints that would have to be met, he was not shy about confronting them head-on, though he did so with his characteristic humility.

Religious resistance was something that Darwin could not have failed to be aware of, as it was and continues to be a common ailment of the world's independent thinkers. Rather than attacking the religion that opposed him, Darwin was careful to instead treat the explanations religion used to deal with the Origin of Species logically, pointing out their problems and conveying how much more adequately natural selection handled those issues. While he considered it "quite conceivable" (96) that another naturalist could come to the conclusion that each species was descended, like the different varieties, from one instance of independent creation with variation caused by external conditions, Darwin was quick to point out that such a theory would be unable to deal with the incredible complexities of development, citing the adaptation of woodpeckers and mistletoe as examples. The other popular religious theory was the notion of 'Vestiges of Creation' in which one could theorize that "some bird had given birth to a woodpecker, and some plant to the mistletoe, and that these had been produced perfect as we now see them" (96). However, Darwin saw that this theory left the issue of "coadaptations of organic beings to each other and to their physical conditions of life, untouched and unexplained" (96). He also points out that such theories do not answer the questions of why, if we are assuming an intelligent creator, "upland geese, which never or rarely swim, should have been created with webbed feet; that a thrush should have been created to dive and feed on sub-aquatic insects; and that a petrel should have been created with habits and structure fitting it for the life of an auk or grebe" (164-165). Darwin's theory of evolution by natural selection explains all of these things, showing that, as nature is slow to change unless forced, the webbing on the feet of an upland goose could be vestigial from its prior development in a swimming goose for which it was helpful. Though it no longer helps the upland goose, it also does not hinder it and therefore no change is made. Thus, natural selection finds it easy to explain that which is "inexplicable on the theory of independent acts of creation" (166) Only after treating religion inspired origin theories in a scientific manner, does Darwin venture to actually comment on the

religion stating that:

> To [his] mind it accords better with what we know of the laws impressed on matter by the Creator, that the productions and extinction of the past and present inhabitants of the world should have been due to secondary causes, like those determining the birth and death of the individual. When I view all beings not at special creations, but as the lineal descendants of some few beings which lived long before... they seem to be to become ennobled. (174)

With this and other comments Darwin shows an understanding that beyond just religious resistance there are definite emotional reasons why society would prefer not to believe his theories. He realizes that the theories of Creation appeal much more to our pride than the idea that we are simply the process of natural phenomenon and does what he can to add glamour to humanities position at the end of natural selection. For Darwin, looking at our past from an evolutionary viewpoint allows man to conclude that good things are in store for man in the future:

> As all those living forms of life are the lineal descendants of those which lived long before..., we may feel certain that the ordinary succession by generation has never once been broken, and that no cataclysm has desolated the whole world. Hence we may look with some confidence to a secure future of equally appreciable length. And as natural selection works solely by and for the good of each being, all corporeal and mental endowments will tend to progress towards perfection. (174)

While Darwin acknowledges that he does not "expect to convince experienced naturalists whose minds are stocked with a multitude of facts all viewed... from a point of view directly opposite" (170), he is not afraid to point out the foolishness of their claims. As he puts it: "It is so easy to hide our ignorance under such expressions as the 'plan of creation,' 'unity of design', &c., and to think that we give an explanation when we only restate a fact" (170). More than just simple prejudice developed from years of believing the same theories and reluctance to accept change, Darwin's theories were also hampered by "our natural unwillingness to admit that one species has given birth to other and distinct species, [in as much as] we are always slow in admitting any great change of which we do not see the intermediate steps" (170) Darwin compares this difficulty to that first felt by geologists when confronted with Lyell's theories regarding the uniformity of geological processes in the formation of today's sea-cliffs and valleys. As he puts it:

> The mind cannot possibly grasp the fully meaning of the term of a

> hundred million years; it cannot add up and perceive the full effects of many slight variations, accumulated during an almost infinite number of generations. (170)

This is indeed a hard concept to grasp and Darwin does not offer any persuasion with regards to overcoming it, but simply by causing each reader to acknowledge his or her own limitations he can inspire his readers to dismiss the possible effects of their emotions and help them to approach natural selection from an impartial point of view.

When Darwin has laid out the full extent of his theory and defended it to the best of his ability he returns to the belief that despite gaps, opposing viewpoints, the remaining unexplained phenomena, or religious and emotional pressures, he is convinced in the correctness of his theory. After listing the most basic elements of his theory he reminds his readers "The truth of these propositions cannot, I think, be disputed" (158). This conviction on his part is not a new thing; it has been reinforced repeatedly throughout the work and is stated direction both in the above example from Chapter XIV and in the closing paragraph of his introduction. This conviction too appeals to our emotions leading us to ask why we should disagree with someone who seems to be such a humble and rational being and is looking at the same information we are. With some strong emotions working against him, Darwin realizes the need to line up emotions on his side of the battlefield and acts on that need.

Faced with the prospect of introducing a new and exceedingly controversial theory into his society, Darwin managed to overcome more than two decades of indecision and cautiousness to produce a remarkable work that both explained and defended his revolutionary ideas. He used a direct approach to the controversy to show his own awareness of it early on and, in doing so, started in an offensive position. He than freely admitted all of those things that he realized his opponents would be likely to use against him, effectively disarming his opponents. Throughout the rest of the work, he was careful to not provide any ammunition that could be used against him keeping a humble tone and downplaying his efforts while simultaneously earning himself allies. Besides his remarkably strong efforts in support of his theories, his head-on attacks on the popular theories (in a polite and logical manner) helped prevent any attack from that direction later. Finally, Darwin recognized his own inability to convince everyone and after discouraging emotional resistance to his theories, brought out emotional arguments in support of them. Each of the many and diverse tactics he employed served its purpose exactly as he

wished it to and subtly showed his understanding of the nature of his opposition, allowing his arguments to be more convincing than he, himself initially thought possible.

Works Cited

Darwin, Charles. "The Origin of Species." *Darwin: A Norton Critical Edition, 3rd Ed.* Ed. Philip Appleman. New York: Norton, 2001.