Exploring the shift in worldview post-Darwin's theory

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Darwin's theory of evolution caused a shift in how people perceived the world, and tried to understand their surroundings. Slack, in his book 'The Battle over the Meaning of Everything', writes "what [the dover trials were] really about was neither evolution nor ID, but the worldviews they enabled" (Slack, 39-40). Slack points out that Darwin's theory fundamentally altered the way individuals thought about the world, rather than simply adding on to their existing notions. It dramatically shifted people's view of different fields, different concepts and introduced new ideas to fields that it wouldn't directly be applicable to.

To understand this idea, we have to first look at defining, and understanding Darwin's theory and understanding the impact it can create. To begin understanding Darwin's theory we should first explore the principle of natural selection. At the beginning of his chapter on natural selection Darwin poses the question "[can] the principle of selection, which we have seen is so potent in the hands of man, apply in nature?" (Darwin, Origin, 80), and the principle of natural selection is the theory that stands to answer this question. Farmers and many other professions have practiced the principle of selection by letting their best animals breed and so can that same principle happen in nature, but occur in all living creatures instead?

Darwin explains it best through the idea that "[man] selects only for his own good: Nature only for that of the being which she tends" (Darwin, Origin, 468), which represents the idea that an individual selects only for her own good, but nature selects for the adaptation and progress of all beings. Darwin's ideology of natural selection stands on top of the idea that "every variation, even the slightest; rejecting that which is bad, preserving and adding up all that is good" (Darin, Origin, 83). Natural selection is to preserve variations that leads to an advantage, and elimination variations that contribute to injury or death.

In addition, another big part of Darwin's theory is the notion of a struggle for existence.

Struggle for Existence "As many more individuals of each species are born than can possibly survive; and as, consequently, there is a frequently recurring struggle for existence, it follows that any being, if it vary however slightly in any manner profitable to itself, under the complex and sometimes varying conditions of life, will have a better chance of surviving, and thus be naturally selected. From the strong principle of inheritance, any selected variety will tend to propagate its new and modified form." (Darwin, Origin, 14)

"Owing to this struggle for life, any variation, however slight and from whatever cause proceeding, if it be in any degree profitable to an individual of any species, in its infinitely complex relationship to other organic beings and to external nature, will tend to the preservation of that individual, and will generally be inherited by its offspring" (Darwin, Origin).

Moreover, another interesting observation is that different people who have written about theories involving Darwin's theory have different views of defining natural selection or the theory of evolution. This is interesting to observe as it depicts the ways these authors have thought about these theories, and applied it in their own ways. The theory of evolution involves a lot of different components to it, and in order to understand the worldview that their theories represent it is important to note how they portray it. Different individuals form different opinions on the theory given their personal assumptions beforehand, and also mould it to apply to their topic.

Pagel, in his book 'Wired for Culture: Origins of the Human Social Mind', writes

"[natural] selection does not maximize happiness or even well-being, but rather long-term reproductive success" (Pagel, 24). Pagel here expresses natural selection as concept for leaving more progeny in future generations.

Dawkins, in his book 'The Selfish Gene', "[although] evolution may seem, in some vague sense, 'good thing', especially since we are a product of it, nothing actually 'wants' to evolve. Evolution is something that happens, willy-nilly, in spite of all the effort of the replicators (and nowadays of the genes) to prevent it happening" (Dawkins, 19).

Talk about how people applied their understanding/thoughts before Darwin's theories Talk about people's thoughts and representations after his theory came out.

My thesis is that

Pagel looks at how languages evolve by applying the biological evolution and nature selection theory as a template.

"Evolution, he said, permits a relativistic, purposeless, Godless view of the world, in which self-aggrandizement and pleasure are sufficient ends in themselves, and the only objective measure of goodness is reproductive fitness." (Slack, 40-41)

"Our invention of culture around that time created an entirely new sphere of evolving entities. Humans had acquired the ability to learn from others, and to copy, imitate and improve upon their actions" (Pagel, 2).

"Our cultural survival vehicles were built not from coalitions of genes but from coalitions of ideas roped together by cultural evolution" (Page, 46).

"As man advances in civilization, and small tribes are united into larger communities, the simplest reason would tell each individual that he ought to extend his social instincts and sympathies to all members of the same nation, though personally unknown to him. This point being once reached, there is only an artificial barrier to prevent his sympathies extending to the men of all nations and races." (Darwin, Descent)

References

- [1] Darwin, Charles, and W. F. Bynum. On the Origin of Species: By Means of Natural Selection or the Preservation of Favored Races in the Struggle for Life. London: Penguin Classics, 2009. Print.
- [2] Pagel, Mark D. Wired for Culture: Origins of the Human Social Mind. N.p.: W. W. Norton & Company, 2013. Kindle Edition.
- [3] Slack, Gordy. The Battle over the Meaning of Everything: Evolution, Intelligent Design, and a School Board in Dover, PA. San Francisco: Jossey-Bass, 2007. Kindle Edition.
- [4] Dawkins, Richard. The Selfish Gene. Oxford; New York: Oxford UP, 2006. Print.