

Systematic Misrepresentation:

Analogy and Anthropomorphism in the Work of Charles and Erasmus Darwin

Analogy can convert esoteric information into a palatable form by making comparisons between the unknown and the familiar. This translation of foreign to familiar relies upon a shared system of ideas or what we might call common knowledge. Analogy is useful, as it gives the masses access to concepts in which they might be otherwise unable to engage. However, if we consider the act of analogizing more critically, we find that it bears certain consequences.

Charles and Erasmus Darwin are among a group of 18th and 19th century thinkers who employ anthropomorphism, a particular type of analogy which relates concepts to human qualities, to articulate ideas on a range of scientific topics. If we accept that analogy is a translation to the familiar, it makes sense that anthropomorphism as a type of analogy should be especially prevalent. For what are we more familiar with than ourselves?

Analogy in general (and anthropomorphism specifically) occurs in various degrees. A writer may, for instance, describe the parts of a tree in relation to (what he or she believes to be) the corresponding parts of the human anatomy. The tree-to-human comparison is an example of an explicit anthropomorphism, in which the author consciously articulates the connection between human and tree. However, anthropomorphism can function more subtly in a text when an author inserts a word or connoting human form or behavior into a description of an abstract concept of an inanimate object. These two examples of applied anthropomorphism are opposite ends of a spectrum that contains numerous gradations of the technique.

Erasmus Darwin is a logical starting point for an examination of anthropomorphism, because of his influence on his grandson's work and because *The Loves of Plants*, a long poem in which Erasmus imagines the fertilization of different plant types, is rife with plant-human comparisons. Erasmus Darwin bases his project on a genealogical model, a device which has been used for thousands of years to trace human blood lines. In the context of this model, Erasmus Darwin addresses the evolutions of plants, not in terms of cross fertilization between various species, but as "intermarriage" between families.

Nearly every line in Erasmus' poem contains explicit anthropomorphism. In describing the *Collinsonia* he writes, "With sweet concern the pitying beauty mourns, / And sooths with smiles the jealous pair by turns."¹ The anthropomorphic imagery in these lines is so strong that without Erasmus' note describing the "single female" and the "two male" parts of the plant, the reader would be at a loss to understand Erasmus' comparison between coquettish beauty and botany.² His lines on the Iris conjure another image of a strange sexual relationship. "The freckled Iris owns a fiercer flame, / And Three unjealous husbands wed the dame."³ In both cases, Erasmus Darwin goes beyond anthropomorphizing the physical form of the plants, and seeks to explain their arrangements in terms of emotions with words like "jealous" and "mourning".

One need not be a brilliant botanist to conclude that Erasmus Darwin's language of emotion—a distinct property of the human consciousness—has little place in a discussion of botany, although most readers would probably fail to see anything sinister in Erasmus Darwin's use of such exaggerated anthropomorphism. One could argue that his work clouds truth in that it is a misrepresentation of plant behavior. The counter

argument would be that Erasmus Darwin does not try to create a rigidly scientific work here; rather, he creates something artistic and accessible for a general audience. Nonetheless, Erasmus Darwin's artistic intent does not excuse him from all culpability, and his work has other problems in addition to its inaccuracy. *The Loves of Plants* fortifies a stereotype of the promiscuous female who "soothes with smiles" men wooing her, suggesting that such behavior, because it occurs in nature, is somehow inherently female. Secondly, while Erasmus Darwin's work is playful (we might say, more artistic than scientific), it helps to establish the paradigm of gendering plants, or more generally, organizing nature in terms of human characteristics, a paradigm which becomes far more problematic in the work of Charles Darwin.

Charles Darwin's work in botany bears little formal resemblance to that of his grandfather. Aside for the occasional rhetorical flourish, Charles Darwin's work in botany is methodical and scientific. While Charles Darwin still incorporates anthropomorphism, he does so far more subtly than his grandfather, and as such, his analogies between plants and people look more like scientific truth than rhetorical device. It is such this latency in Charles Darwin's anthropomorphism that makes it particularly dangerous.

Published in 1877, Charles Darwin's *The Different Forms of Flowers and Plants of the Same Species* builds upon Erasmus Darwin's anthropomorphic analysis of plant fertilization. Charles Darwin's work is not anthropomorphic in the strictest sense of the word, as it does not make overt comparisons between plant and human form. But it is anthropomorphic in the Nietzschean sense, as defined in *On Truth and Falsity in their Ultramoral Sense*, in that it is a distinctly human approach to a non-human subject. It is

an approach that contains few points that would be “‘true in [themselves]’, real, and universally valid apart from man,” an approach that seeks to “understand the world as a human-like thing.”⁴ Consider the following passage: “The fertilization of either form with the pollen from the other form may conveniently be called a *legitimate union*, for reasons hereafter to be made clear, and that of a form with its own-form pollen an *illegitimate union*.”⁵ Charles Darwin’s suspicious diction—*legitimate and illegitimate*—introduces a human standard of legality to botany. It seeks to explain plant production, not in terms of empirical qualities, size of stalk, color, etc., but rather in terms of a subjective right and wrong. As was the case with Erasmus Darwin, Charles Darwin’s decision to frame his findings with anthropomorphic language makes his work digestible, as it is easier to grasp the concept of right and wrong—legitimate and illegitimate—than it is to consider a table of empirical differences between plant offspring.

The problem with Charles Darwin’s legalistic language is that it suggests a value judgment. It suggests that within nature there exists a right and a wrong. Such a claim would be difficult, if not impossible, to prove under any circumstances, but Charles Darwin’s approach to his assertion is especially dubious. He bases the distinction between legitimate and illegitimate on the variable of seed output, assuming that higher output is desirable. Had Charles Darwin wanted to comment on a plant’s chance of procreating, he might have used the terms *productive* and *unproductive* to describe the two types of union; but he chooses to use value-laden terms based on a capitalistic philosophy in which product is the means by which one measures the success of any arrangement. We see, then, that Darwin’s anthropomorphism is actually two-fold, for he uses legalistic language to articulate his ideas, which are themselves the product of a

capitalistic philosophy. As with Erasmus' work, we could argue that Charles Darwin's anthropomorphism promotes a misunderstanding of plant functions. But the larger problem with Charles Darwin's work is that it promotes a misunderstanding of the *human* condition in a way I will attempt to elucidate.

In showing the progression from Erasmus to Charles Darwin, I have illustrated how anthropomorphism becomes less overt as it is assimilated into scientific language. As I have argued, anthropomorphism is a type of analogy, which is itself a type of metaphor. In the progressive use of anthropomorphism, we see the process that Nietzsche describes in *On Truth and Falsity in the Ultramoral Sense* with the metaphor of a coin losing its value as currency. As he says, "Truths are...worn-out metaphors which have become powerless to affect the senses; coins which...are not longer of account as coins but merely as metal."⁶ In its initial form, anthropomorphism is valuable for its metaphoric power, its ability to link the foreign with the familiar. However, when anthropomorphism becomes part of the vernacular, it loses its metaphoric identity and becomes instead a type of truth, accepted as inherent to the thing to which it was once arbitrarily applied. This solidification of metaphor into truth is the most serious problem with anthropomorphism, one whose insidiousness I hope to demonstrate with a final example from Charles Darwin.

Moving from botany to evolutionary theory, I will examine Charles Darwin's *The Origin of Species*, paying close attention to the section entitled, "Struggle for Existence". I am not working chronologically as *The Origin of Species* was published nearly twenty years before *The Different forms of Forms of Flowers and Plants of the Same Species*. Therefore, I am not arguing that the views in *The Different Forms of Flowers* led to the

opinions and language in *The Origin of Species*. Rather, I discuss *The Origin of Species* last because it epitomizes the way in which anthropomorphism can foster misinterpretation.

Charles Darwin warns his reader that he uses “the term Struggle for Existence in a large and metaphorical sense,” but goes on to bury his caveat under a landslide of language of human endeavor and conflict.⁷ He describes all “organic beings” as “striving” and “struggling” against “competitors” and “enemies”.⁸ I will again accept that Darwin’s anthropomorphic enhances the readability of his piece, but it does so at the cost of confounding the concept of natural selection. Natural selection is an arbitrary process by which some mutation or set of mutations proves advantageous to certain animals. The animals with the advantageous mutation live longer and have more opportunities to procreate. Their offspring then, are more likely to have the mutation. Darwin did not have the benefit of modern genetic science, but he understood the concept of natural selection well enough to know its fundamental dissimilarity to Lamarck’s theory of acquired inheritance, which states that an organism may change over the course of its life and pass that change on to its offspring. One could argue that a world of acquired inheritance would foster some type of competition between organisms (for instance, a pack of wolves that ran every day would produce faster offspring than a lazy pack), but the same argument is true for natural selection. Verbs like “struggle” and “strive” suggest conscious action, or if not conscious action (as is the case with plants), at least action rather than passiveness. Darwin uses the term “War of Nature” to elucidate natural selection by likening it to human conflict, but in doing so, he wrongly

characterizes the state of nature as a battleground in which all organisms actively engage in competition for supremacy.

The consequences of Charles Darwin's anthropomorphic description develop out of the circular reasoning to which I alluded in the footnote. The process like this: Darwin (or any other author who uses anthropomorphism) imbues nature with distinctly human attributes (the desire for power, emotional love, etc.) make its processes palatable to a general audience. This type of analogy is so helpful that it gains permanence in scientific discourse, and more importantly, in popular conceptions of nature. The danger occurs when certain individuals (Social Darwinists, Scientific Racists, Fascist Dictators, for example) use these anthropomorphic descriptions of nature as justification for human behavior. They say, "Because there is struggle for dominance in nature, so there must there be struggle for dominance between people, between states, between races". What such thinking fails to see is that "struggle" and "warfare" as we understand them, are human concepts imposed on nature, just as gender is a human concept imposed on plants. The argument that nature justifies human action falls apart when we consider that humans defined nature in terms of human action.

We may feel an impulse to reject the Darwins and those like them, whose antiquated explanations of scientific fact have obscured our ability to understand the physical world. However, we must resist such an impulse. Even if we so desired, we could not completely cleanse our thought of the residue from Charles Darwin's *The Origin of Species*. His language is engrained in our understanding of evolution. Rather than avoiding history's problematic texts in hopes that their effect on posterity will eventually diminish, we must continue to study them, to expose their flaws, and to

identify the ways in which readers have misinterpreted them. Only through acknowledging historically mistaken theories can we hope to redefine our current understanding of the physical world and our relationship to it.

¹ Erasmus Darwin, *The Botanic Garden : a poem in two parts containing 'The Love of Plants'* (London: Printed for J. Johnson, 1799), 5

² Erasmus Darwin , 6

³ Erasmus Darwin , 8

⁴ Nietzsche, "Truth and Falsity in their Ultramoral Sense," in *The Complete Works of Friedrich Nietzsche, Volume II: 'Early Greek Philosophy' and Other Essays* (New York: Russell & Russell, 1964) ,183

⁵ Charles Darwin, *The Darwin Reader*, ed. Mark Ridley (New York: W.W. Norton & Company, 1996) , 246

⁶ Nietzsche, 180

⁷ Charles Darwin, 88

⁸ Charles Darwin, 100