

What natural selection cannot do, is to modify the structure of one species, without giving it any advantage, for the good of another species; and though statements to this effect may be found in works of natural history, I cannot find one case which will bear investigation.

- Charles Darwin, *On The Origin Of Species*

Darwin's description of the *Formica rufescens* and *F. sanguinea*, the slave making ants, speaks to his awe of the natural world. When Darwin speaks of the instinct of taking slaves, he puts it in the terms of "so wonderful an instinct could have been perfected." This, of course, isn't an advertisement of his opinion (he's been described as an avowed abolitionist); however, it does speak to his amazement of his (sometimes personified) wonder at the mechanisms of life, no matter how small.

Keeping in mind the general audience target of *On The Origin Of Species*, this, and other examples of his reverence and amazement of nature "see the wonderful difference in their beaks" (CITE). When Darwin talks of wonder, he talks not of the moral rectitude of a behavior; instead he speaks to the appreciation of the long process that culminated in it. When natural selection is given geologic-scale time, the resultant species can appear to be tailor-made for varying environments that we can find life.

Behaviors, such as the slave-making of *Formica* and *F. sanguinea*, were

chosen by Darwin to illustrate specialized instincts, which in his words have "justly been ranked by naturalists as the most wonderful of all known instincts." The differences of the two species is marked whenever applicable, "behold the masters carefully carrying their slaves in their jaws instead of being carried by them, as in the case of *F. rufescens*" (CITE)

Darwin does wade in with opinion, slight at times, heavy-handedly in others, in three fashions: in some unusual word choice, in tilting observations he's had towards opinion, and in nakedly passing judgment on the evolved behavior of these ants.

First, there is interesting word choices in the text - although this text is indeed for an everyman, some choices are stronger than necessary. When describing a raid on a nest by *F. sanguine* "they were eagerly seized and carried off by the tyrants." (CITE) "Tyrant" is a loaded word, especially in context. This personification, or literally ascribing an active agency in actions, can be also seen in the description of *F. flava*, as being "very courageous." (CITE) This is mentioned twice in his descriptions of *F. lava*. Courage can only exist with fear and agency. If a little yellow ant is able to have these complex emotions, it would be fair to describe it as having courage. If instead, this yellow ant has no emotions, as well as no thoughts as humans understand them, then there cannot be any courage. In other places, black-colored slave

ants are described as working "quite energetically." (CITE)

This word choice is part of what appears to be an overall effort to "flavor" the descriptions of the slave making and work of the ants. In the introductory paragraph of the passage describing this slaver instinct, Darwin passes two judgments in the first sentence: First, in describing the instinct as "remarkable" and an observer, Huber, as "better observer even than his celebrated father." To think the rest of the passage would be dispassionate, scientific prose wouldn't be in good judgment. After the introductory material, giving credit for help, and the like, Darwin tries "to approach the subject in a skeptical frame of mind." (CITE)

Observations rely on language, and language such as "it is clear the slaves feel quite at home." (CITE) could be replaced with, perhaps "The slaves act as if they were in their own species' nest, with no deviations in behavior" as an example. In the midst of his own observations, before speaking on the actual observations, Darwin then inserts an opinion from a Mr. Smith of the role of the ants "as strictly household slaves." (CITE) Later, Darwin decries a scene of *F. sanguinea* finding pupae on the ground: "they were eagerly seized and carried off by the tyrants, who perhaps fancied that, after all, they had been victorious in their late combat."

If the goal of the text were to convince the reader of the wrongness of

slavery, you'd have to edit little, including the judgments inserted by Darwin himself. The judgments of "ruthlessness" (CITE) on the "tyrants" (CITE) and of a *F. fusca* looking over combat as "an image of despair." While slave making amongst humans was indeed ruthless and desperate, Darwin hopes to invoke at the end of the passage a parallel with overly literary comparisons.

In regards to the block quote above, until now unmentioned, I'd like to make a point that Darwin himself contradicts: inter-species slavery is a viable strategy for survival. While cooperation's seems to be the rule of the day, if a species finds it more expedient to abuse another ant's instincts such as "build a nest where the other ants are" and "feed ant-shaped things in my nest," it is likely that those genes will survive and allow a species to thrive against its competitors.

So, while the behavior may be morally reproachable, and unlikely to engender any goodwill from humans, making any sort of judgment regarding these behaviors does nothing but undermine Darwin's standing not as moralist (a field that seems to attract proponents of evolution, as seen in Dawkin's "Unweaving the Rainbow") but harms the image of Darwin as a dispassionate scientist who relies on evidence to make his case instead of colorful language and thinly-veiled barbs against social issues of his day.