Translating natural selection: true concept, but false term?

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Abstract

This paper focuses on the translation of the term “natural selection” in some European languages (mostly French and German). It adopts a historical and philosophical perspective on the term “natural selection” to emphasize the power of words in science. Although natural selection is probably Darwin’s most significant contribution to the theory of evolution, the phrase itself has been strangely and largely neglected by historians. This paper tries to understand why Darwin maintained the term in spite of the considerable dispute which it provoked from 1859, when the Origin of Species was first published. Indeed, Darwin thought it useful since it is both a technical term and one that nicely encapsulates an analogy with the practice of breeders. However, what Darwin saw as linguistic and conceptual efficiency entailed great difficulties in translating the term, and also in understanding it—as is clearly evidenced by ever-recurring debates on the “agential” connotations of selection. Besides, processes of translation suggest that the phrase “natural selection” gained a technical value before its sense was fully understood and a general theory of natural selection was well established. The study of the French translation of “natural selection” leads to another important result. I claim that French breeders did not have the word sélection; and if they were actually “choosing” individuals for breeding and leading breeding experiments over several generations, the absence of the term is nonetheless indicative of important differences between the practices in France and in the United Kingdom. The case of Vilmorin’s method of “maddening” [“affolement”] is indicative of those different “philosophies of breeding”: although “affolement” is a choice of mates, it differs from selection as it is not the patient accumulation of minute variations in a definite direction but a perturbation of the organization as a whole.

Key words: natural selection, evolution, Darwinism, Royer (Clémence), Bronn (Heinrich Georg), breeding