

What Psychologists Can Tell Us About the Acquisition of Complex Concepts

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The argument that not only primitive but also complex concepts (here construed as mental vehicles that express a certain content) cannot be learned is arguably the most interesting and controversial development in Fodor's theory of concepts (2008). The underlying reasoning is familiar. According to Fodor, a complex concept like GREEN AND TRIANGULAR cannot be learned for the same reason that primitive concepts (like, arguably, GREEN) cannot be learned: if learning involves hypothesis testing and testing hypotheses requires the possession of the relevant target concepts then it follows that concept learning presupposes the very concepts whose acquisition we wanted to explain (*Fodor's paradox*).¹

Fodor's argument in favor of his now even more radical, concept nativism contributes to the debate on whether concepts are structured or simple mental objects. It has been argued that positing structured concepts has a methodological advantage because it could explain how concepts are learned, namely by concept combination (Laurence & Margolis, 1999; Prinz, 2002). Fodor's recent increased pessimism with respect to the learning of even complex concepts thus challenges not only the idea that psychology can explain how we acquire new simple concepts but, if successful, also debunk one of the main arguments in favor of the view that most lexicalized concepts are structured complex entities (e.g., definitions, frames or prototypes).

Even though it is widely acknowledged that Fodor's argument seriously challenges current conceptions of concept acquisition (e.g., Carey, 2009), most philosophers and psychologists consider Fodor's conclusion far too extreme and deeply counterintuitive (Fodor's view is frequently referred to as "mad dog nativism", see e.g., Cowie, 1998; Rey, 2014). This resistance stems from the intuition that especially some highly abstract concepts like INTERNET or MANSPLAINING must have been *learned* due to their recency and abstractness. In addition, many philosophers and psychologists worry that, if Fodor is right, this would render a naturalistic theory of knowledge impossible (e.g., Prinz, 2002; Margolis and Laurence, 2011).

To avoid these consequences, Margolis and Laurence (2011, from now on M&L) put forth a detailed challenge to Fodor's paradox. Their main strategy is to focus on the psychological processes that, as both Fodor and M&L agree, usually *lead* to concept acquisition. Because these processes can be understood as a form of hypothesis testing, M&L conclude that Fodor's conclusion is false and that concepts can be learned in a rational, as opposed to a brute causal, way. Similarly, Carey (2009) and Beck (2017) argue that there might be kinds of psychological learning mechanisms that can avoid Fodor's paradox.

One aim of this paper is to make explicit why these recent attempts to save the notion of concept learning fail and why Fodor's radical concept nativism (the claim that no concept can, in principle, be learned) cannot be avoided even under the assumption that most concepts are structured, i.e., complex entities. A second aim is to explain in more detail (than e.g., Rey, 2014 or Fodor, 2008) why radical concept atomism is neither implausible, nor incompatible with naturalistic theories of cognition and learning in psychology. In particular, I stress the creativity of thinkers and elaborate on important and often neglected distinctions between *concept manifestation* and *concept possession* (Rey, 2014; Fodor, 1998).

References

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¹ It is of course controversial whether learning can only be construed as hypothesis testing. I defend this idea in some detail in later sections.

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