Explanatory Virtues and Genetic Causation

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Abstract

Cognitive, behavioral or medical characteristics of human beings (e.g. traits such as language or diseases such as schizophrenia) are often said to be causally complex. Causal complexity comprises that (1) an effect has *many* causes and that (2) a cause has *many* effects. We can thus react to it in two ways: (1) by selectively focusing on particular causes and relegating other causally relevant factors to the status of mere conditions (causal selection), and (2) by dividing the phenomenon into parts that are more tractable (reconstituting phenomena). These strategies conquer complexity by dividing either the explanans or the explanandum, or both. As a result, we get a more simplified picture: effects that 'have a cause of their own' and causes that 'have an effect of their own'. The focus in this talk will be on reconstituting phenomena. When we use this strategy, we are guided by heuristic norms that relate to what I call explanatory virtues, criteria that (if fulfilled) make an explanation a good one. The focus will be on stability, specificity, and proximity. The paper describes how these explanatury virtues are related, how they can conflict, and in which sense they are instrumental for further epistemic values (such as parsimony, generality, predictive fruitfulness, etc). It will also explicate how levels of analysis and disciplinary boundary politics enter the picture. Examples are from norm of reaction studies and talk about endophenotypes in discussions about genetic causation.

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