

Title: "Robustness Analysis as Explanatory Reasoning"

Abstract: When scientists seek further confirmation of their results, they often attempt to duplicate the results using different methods. To the extent that they are successful in doing so, their results are said to be *robust*. Past work on the logic of such "robustness analysis" has been inconclusive. In this paper, I examine several characteristic cases of robustness analysis in science; based on these, I argue that robustness analysis is a brand of explanatory reasoning. Once this is realized, several weaknesses of past accounts manifest themselves, and we gain a new foothold on the logic undergirding robustness analysis.