Public Abstract First Name:Darin Middle Name:Andrew Last Name:Finke Adviser's First Name:Paul Adviser's Last Name:Weirich Co-Adviser's First Name: Co-Adviser's Last Name: Graduation Term:SS 2011 Department:Philosophy Degree:PhD Title:Van Fraassen and a Defense of Inference to the Best Explanation

Is there an evidential connection between explanation and truth? If a hypothesis provided a really good explanation of a set of data should this count as evidence for the hypothesis being true? Imagine arriving home from a vacation to discover that the door to your house has been jimmied open and that many of your possessions have gone missing. A really good explanation and probably the best explanation of these facts would be that your house was burgled. And this seems to count as a reason to believe that your house was burgled because this hypothesis would be both a really good explanation and the best available explanation of these facts. This type of inference is called inference to the best explanation (IBE), and it is very important within philosophy. For instance, the justification and defense of a particular view one may take of science, namely scientific realism, is crucially dependent on the justification of IBE. Whether IBE is a reliable or justified mode of inference. I disagree with him on this point. In this dissertation I explain the nature of IBE and its importance to scientific realists. I also analyze and explicate the arguments that have been given by van Fraassen, and in order, show that each of them fails.