

At the 2011 VISU/SWC, I presented my paper “Narrative in *Ad Hoc* Explanations.” This statement contains the following information: (1) a summary of the content of my presentation, (2) the importance of VISU/SWC personally and professionally, and (3) why I chose to attend VISU/SWC.

### **Presenation - Narrative in *Ad Hoc* Explanations**

When we evaluate competing explanations for a phenomenon (e.g. What caused the child’s autism?), we use a technique philosophers call Inference to the Best Explanation. This inference takes an observation and competing explanations (e.g. “The child was vaccinated” and “The child has certain genetic markers”) and asks how surprised we would be to discover the observation if the hypothesis were true. Whichever explanation would make the observation least surprising is called the *favored explanation* and is taken to be a better explanation than the *disfavored explanation*.

Often, observations in need of explanation are new sets of experimental data. For example, experimental data regarding vaccination and autism rates suggests that the best explanation for autism is *not* that the child was vaccinated, but rather that the child has certain genetic markers. When this happens, proponents of the disfavored explanation will often adjust their theory solely to account for the new data. Such reasoning is *ad hoc*, and is traditionally discounted on these grounds.

My paper argues that an explanation being *ad hoc* is not a reason to discount it. The history of science suggests that *ad hoc* explanations have resulted in important scientific breakthroughs, including Einstein’s cosmological constant and Kepler’s

discovery of elliptical orbits. However, the urge to reject *ad hoc* explanations has a great deal of intuitive support.

I explain this intuition on the grounds that we expect explanations to fit neatly within narratives, something that *ad hoc* explanations are unable to do. Recent psychological evidence bolsters this claim. Rather than reject an explanation because it is *ad hoc*, I suggest a closely related principle that is able to separate good *ad hoc* explanations (e.g. Planetary orbits are elliptical) from bad *ad hoc* explanations (e.g. Vaccination causes autism).

### **Personal and Professional Importance**

VISU/SWC was an important conference for me to attend for three reasons. First, it allowed me to present my work before a panel of leading international scholars from various disciplines, including philosophy, psychology, and history. Second, VISU/SWC allowed me the opportunity to interact with these scholars and network with scholars from other disciplines at various levels of prominence. These interactions have already suggested future fruitful avenues of research. Third, VISU/SWC was an important opportunity for professional development.

### **Reasons for Attending**

I attended VISU/SWC because this year's theme, the nature of scientific evidence, is an important part of my doctoral research. My research focuses on scientific practice and why scientists engage in the practices they do. An important part of this practice is the search for scientific evidence. In order to best complete my research, it is important not only to interact with philosophers considering the same question, but also to interact with scientists in various disciplines and consider their

answers to why they do what they do. VISU/SWC allowed me to do both at an international level. When I returned home, I had gotten the perspective of psychologists, biologists, physicists, and philosophers, among others. No other opportunity I know of allowed me to present my work, interact with leading international scholars, and continue my research by gaining an international, interdisciplinary perspective as well as VISU/SWC 2011 did.