Midwest Workshop PhiloSTEM (Conference Report)

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Midwest Workshop in the Philosophy of Science, Technology, Engineering, and Mathematics, 13–14 April

The third “Midwest Workshop in the Philosophy of Science, Technology, Engineering, and Mathematics” (PhiloSTEM-3) took place in Fort Wayne, Indiana, USA, April 13–14, 2012. The workshop is sponsored by the Department of Philosophy at Indiana University-Purdue University Fort Wayne (IPFW) and organized by Bernd Buldt, Ioan Muntean, and Charles McCarty (Indiana University, Bloomington). Its goals are to build a bit of a community among philosophers, scientists, and historians in the Midwest (and beyond!) and to provide an opportunity for an informal exchange of ideas and for friendly criticism of work in progress. Our meetings consist in invited lectures and contributed presentations, most of them followed by comments.

At PhiloSTEM-3, we invited two colleagues to talk about recent work: Anjan Chakravartty (Notre Dame) and Timothy Lyons (a previous participant in PhiloSTEM, from Indiana-Purdue, Indianapolis). Anjan (“How Realists Can Make Worlds”) proposed a new research program based on the idea of “synchronic world-making” and a taxonomic pluralism based on properties rather than entities in which he reconciles the idea of scientific realism with world-making, traditionally an antirealist position. Tim (“Using Underdetermination to Articulate a Realist Axiology”) presented an argument based on underdetermination for his own realist axiology, based on the hypothesis that science seeks to increase a particular sub-class of true claims.

Three of the five contributed papers we had selected dealt with, broadly speaking, the life sciences. Nina Atanasova (Cincinnati) showed that animal models can serve as counterexamples to the 3M account (Kaplan and Craver, 2011) of explanatory force. Susan Smith (SUNY, Buffalo) started with a problem in Kitcher’s pluralistic realism and proposed replacing his account of species simpliciter with a proxy language of “DNA connectedness,” using a concept of consilience. Charles Pence (Notre Dame) criticized both causalists and statisticians for not offering a framework in which natural selection and genetic drift can be adequately understood. Mark Jordan, an evolutionary biologist from IPFW, chimed in and shared his perspective as a working biologist. In the only talk in philosophy of physics, Pablo Ruiz de Olano (Notre Dame) argued that the group theoretical considerations of ontic structural realism need to be supplemented with dynamical considerations and suggested fiber bundle formalism as a candidate.

Timothy Fuller (Ohio State U) compared and contrasted two types of non-individualistic scientific inference: the “extended mind” and the “population-level” theories and argued why the latter is more plausible. Finally, turning to Turing, Ioan Muntean (IPFW) discussed some epistemological implications of using evolutionary programming in the process of scientific discovery based on results by Schmidt and Lipson (2009).

At PhiloSTEM-3, the commentators were guests or members of the IPFW community: Bernd Buldt, Tim Fuller, Mark Jordan (IPFW, Dept. of Biology), Ken Long (IPFW), Ioan Muntean, and Charles Pence.

PhiloSTEM-4 is scheduled for October, 19–20. Confirmed speakers include Gordon Belot (Michigan), Stuart Glennan (Butler), Bryan Hall (Indiana, South-East), Nick Huggett (Illinois, Chicago), Chris Pincock (Missouri); a call for contributed papers will follow soon. See here for updates and details.

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The Progress of Science, 25–27 April

When Lorenzo Casini, News Editor of this gazette, asked me to write a report about the “Progress of Science” conference which I co-organized, I agreed without thinking too much about it. Only when I started writing I noticed that I would have to refrain from either praise or blame: either I would not be credible or I would be impolite towards the speakers. Thus, instead of pointing out the “highlights” of the conference, I prefer to tell you a bit about the conference series and its history.

In 2007, two new research centers in the philosophy of science were established: the Sydney Centre for the Foundations of Science, directed by Mark Colyvan, and the Tilburg Center for Logic and Philosophy of Science (TiLPS), directed by Stephan Hartmann. While both centers naturally aim at producing excellent work in their field, they also have a vivid interest in the relation between science and society, and in the role that philosophy of science can and should play in the public discourse. Encouraged by Huw Price (then at Sydney), Mark and Stephan felt that it would be a good idea to join forces and to increase the visibility of both centers. So they decided to establish closer institutional links. In the course of this, Mark and Stephan became Visit-