

Function and Design – Contemporary Conceptions of Scientific Understanding

international summer-school for graduate students and advanced undergraduates
Manigod, France, May 1 to 7, 2011

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- The appearance of teleological concepts in descriptions and understandings of technological artifacts is unsurprising – the functions, design, and purposes, of technological artifacts are traceable to their makers.
- The appearance of teleological concepts in the description of biological entities may be somewhat more surprising, especially within the supposedly naturalistic science of biology, but a number of naturalistic accounts attempt to explain function, design, and purpose in non-intentional terms, grounding them in natural biological processes such as evolution or development.
- More surprising even is the appearance of purportedly teleological language in physics, chemistry, and other disciplines that do not appear to have available to them either the straightforwardly intentional accounts one would use in the case of technological artifacts, nor the specifically evolutionary or developmental accounts one would use in the case of biological entities.

How are we to make sense of the notion that physical systems “seek the path with least action”, or that “to form bonds, main group elements gain, lose, or share electrons to achieve a stable electron configuration?” More generally, how are we to understand the role of function-and-design-talk? Is it just jargon, introduced as shorthand, or for the sake of generating publicity by using sexy terminology, or does it instead serve some serious epistemic goal? In this summer-school, we will explore the relationship between accounts of scientific understanding and the possibility of understanding the epistemic role that functional concepts may play in science, including non-biological sciences.

Place: Manigod (La Clusaz), located in the French alps between Annecy, France, and Geneva, Switzerland (the closest international airport is Geneva)

Time: arrival in the afternoon of Sunday, May 1, departure in the morning of Saturday, May 7

Cost: participants need to cover their own travel expenses and contribute a small amount (roughly 50 to 75\$) to the budget for food (as we will ourselves prepare the meals for the group)

Contact: students at the University of South Carolina and elsewhere in North America: Michael Dickson, Dickson@sc.edu – students at Bielefeld University: Ulrich Krohs, ulrich.krohs@uni-bielefeld.de – students at TU Darmstadt and from other non-US countries: Alfred Nordmann, nordmann@phil.tu-darmstadt.de – since the total number of student participants is limited to 20, an application is required with priority given to students from Bielefeld, Columbia (SC), and Darmstadt.

For further information see the more detailed description below and also www.bicoda.info