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Diagrams and Time

Diagrams can be used in ways which parallel the different types of utterances recognized in classical speech act theory. A musical score, for example, can be used as a set of instructions for performance; or it can be used in marked-up form by a student of music to record her errors when performing. An architectural blueprint can be used as a set of instructions for building a building; but it can then later be used as a plan of the completed building or, in marked-up form, as a record of the work performed. But diagrams are able to perform such functions only if their users have a coordinated type of expertise. A musical score is as inert if there are not performers who have the expertise needed to follow its instructions. Our topic here is such diagrammatic expertise; its varieties (for instance the distributed expertise that is involved when a conductor conducts an orchestra); and its relation to time. We shall argue that in very many spheres our grasp of the processes unfolding in reality is mediated through diagrammatic expertise, and draw consequences for our understanding of phenomena such as music, planning, and law.

Barry SMITH is a prominent contributor to both theoretical and applied research in ontology. He is the author of some 500 publications on ontology and related topics, and editor of *The Monist: An International Quarterly Journal of General Philosophical Inquiry*. His research has been funded by the National Institutes of Health, the US, Swiss and Austrian National Science Foundations, the US Department of Defense, the Volkswagen Foundation, and the European Union. In 2002 he received the 2 million Euro Wolfgang Paul Award of the Alexander von Humboldt Foundation. In 2010 he was awarded the Paolo Bozzi Prize in Ontology by the University of Turin. Smith is SUNY Distinguished Professor in the Department of Philosophy and Director of the National Center for Ontological Research. He is also Adjunct Professor in the Departments of Neurology and of Computer Science. Smith is one of the principal scientists of the NIH National Center for Biomedical Ontology, a Scientific Advisor to the Gene Ontology Consortium, and a PI on the Protein Ontology and Infectious Disease Ontology projects. He also serves as consultant on multiple ontology-related projects in the defense and other areas. Smith's pioneering work on the science of ontology led to the formation of the OBO (Open Biomedical Ontologies) Foundry, a set of resources designed to support information-driven research in biology and biomedicine. He is also leads work on the Basic Formal Ontology, which serves as common architecture for the OBO Foundry ontologies and is used in over 100 research projects throughout the world. E-mail: phismith@buffalo.edu.

