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INTRODUCTION: 8 BRIDGES BETWEEN MAINSTREAM AND FORMAL EPISTEMOLOGY

A divide seems to have been running between those epistemologists relying largely on conceptual analysis and focusing on examples and counterexamples for advancing or rejecting various epistemological theses, and those applying a variety of tools and methods from logic, computability theory or probability theory to the theory of knowledge. The two strands of thinking, and the traditions to which they are taken to belong, have unfortunately proceeded largely in isolation from one another.

Recent trends in contemporary epistemology, however, signals a great deal of interest for the intersection between mainstream and formal epistemology. It turns out that the two traditions have much in common, and may be bridged for their mutual benefit and the advancement of epistemology in general. Here are 8 ways of doing it as the invited papers in this special issue of Philosophical Studies demonstrate the fruitful interaction between informal considerations and various formal apparata in order to support, sharpen, undermine, realize, or contribute in some other pertinent way to fundamental epistemological themes.

Epistemology is largely organized around the two central goals of on the one hand defining and securing knowledge while defeating skepticism and on the other modelling the dynamics of epistemic and doxastic states. These two goals are not mutually exclusive although mainstream epistemology has largely focused on the former while formal approaches have concentrated on the latter. Three bridges are built which places epistemic logic – starting with Hintikka (1962) – in relation to these two general epistemological ambitions. In “Where’s the Bridge? Epistemic Logic and Epistemology”,

Vincent F. Hendricks and John Symons (see also Hendricks and Symons, 2005a, 2005b) discuss the sense in which epistemic logic may be viewed as running in parallel with mainstream epistemology as to classical issues like defining knowledge, “forcing”, skepticism, and the questions of rational inquiry. Demonstrating the affinities between epistemology and epistemic logic is also the topic of Johan van Benthem’s “Epistemic Logic and Epistemology: The State of Affairs” where epistemic logic is pertinently pitched back and forth between its importance to mainstream epistemology and its interdisciplinary relations and applications in computer science, game theory and “social software”. In “On Logics of Knowledge and Belief” Robert Stalnaker examines the logics of knowledge and belief and their semantics in greater detail and connects mainstream defeasibility and causal theories of knowledge to epistemic and doxastic logic.

The intertwined relationship between the two goals of epistemology is discussed further in “Rationality and Value: The Epistemological Role of Interdeterminate and Agent-Dependent Values” by Horacio Arlo-Costa; then attention is specifically directed to epistemological classics like theory selection, changing view, fixing beliefs and some new solutions are presented when dealing with indeterminate epistemic values like simplicity and coherence. In “Coherence in Epistemology and Belief Revision” Sven Ove Hansson starts out with another classic – foundationalism vs. coherentism – and then brings the machinery of belief revision theory initialized by Alchourrón et al. (1985) to bear on this theme in order to sharpen and precis the coherentistic motto of “all beliefs support each other” which in the end implies accepting epistemic priority to some beliefs over others in order to avoid coherentistic absurdities. Coherentism and degree of belief continue in “An Impossibility Result for Coherence Rankings” in which Luc Bovens and Stephan Hartmann consider the relation between justification and coherence in the sense of whether the coherence of the incoming information with background assumptions is an important determinant in the