Andrzej Wiśniewski Department of Logic and Cognitive Science Adam Mickiewicz University in Poznań Poland e-mail: Andrzej.Wisniewski@amu.edu.pl

Lecture 1: Knowledge in view of multimodal epistemic logics

Logics of knowledge and belief, often called multimodal epistemic logics, aim to characterize knowledge, belief, and their mutual dependencies. Usually, yet not always, they consider knowledge as a species of belief. Generally speaking, sometimes knowledge is defined in terms of belief (e.g. as true conviction or true justified belief), while in other cases some 'bridge' postulates/axioms connecting knowledge and belief are stipulated. In my talk I am going to use tools and results of multimodal epistemic logics in the analysis of the old philosophical idea, according to which knowledge is true belief 'plus something else.' What this 'something else' component is, remains controversial. After the famous Gettier's paper, philosophers are aware that it is not just mere justification (to be more precise, being justified in believing). However, it is not my aim to resolve this philosophical problem. What I am going to argue for is that regardless of how the problem is solved, we end with a doxastic concept of knowledge which absorbs the truth requirement. Of course, this conclusion is not absolutely binding, but it remains in place as long as the relevant claims of multimodal epistemic logics are taken into account.

Lecture 2: Paradoxes of multimodal epistemic logic: doxastic infallibility, doxastic omnipotence, and more

No paradigmatic, commonly accepted logic of knowledge and belief has been elaborated so far. The existing proposals suffer from yelding paradoxical statements. These usually are not contradictions by themselves. To speak generally, their paradoxicality lies in ascribing to beliefs properties one usually would not be willing to ascribe, in particular features supposed to be exhibited only by knowledge. When a logic of knowledge and belief is interpreted as speaking about propositional attitudes of cognitive agents, the paradoxical statements ascribe to such agents powers that no human cognitive agent possesses. In my talk I will concentrate upon two paradoxical statements of this kind. The *paradox of infallibility* is the claim that beliefs yield the truth of what is believed. The *paradox of doxastic omnipotence* is symmetric to it: the truth of a proposition yields that the proposition is believed. Both paradoxes are provable in some multimodal epistemic logics. In my talk I am going to identify sources of these paradoxes and point out some of their equally paradoxical consequences.