Modeling Chisholm’s Logic of Obligation, Requirement, and Defeat

It is well known that Standard Deontic Logic (SDL) suffers from a number of troubling paradoxes. Despite many years of efforts to resolve the paradoxes, there is no consensus that such efforts have been successful, and indeed [Hansen, 2006] argues that the paradoxes are “alive and kicking.” These continued difficulties with SDL motivate careful study of non-standard deontic logics, such as Chisholm’s Ethics of Requirement (EOR) [Chisholm, 1964]. This paper investigates the foundations of Chisholm’s deontic logic as an alternative to standard deontic logic.

Over the course of his career, Chisholm articulated a set of axioms for a deontic logic, and he gestured toward its connection with his work with Sosa on a logic of preference as given in [Chisholm and Sosa, 1966]. Although Chisholm’s work discussed the motivations and applications of his axioms, he never provided a model for them. This paper’s chief aim is to construct a model for Chisholm’s deontic logic defined in terms of the Chisholm-Sosa preference logic. This is done by combining techniques from modal logic and social choice theory. Since Chisholm’s system is less familiar today than standard deontic logic, the paper begins with a thorough reconstruction of his axiomatization. Finally, having shown that Chisholm’s logic is a viable alternative to standard deontic logic, this paper shows that his system evades Chisholm’s paradox in a novel way.

References

