

Vagueness and non-transitivity in epistemic logic

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Description:

In these lectures I would like to discuss different approaches to the representation of vagueness in epistemic logic, with special emphasis on the use of non-transitive informational structures. Non-transitivity is often presented as a source of vagueness (see Goodman 1951, Luce 1956, Williamson 1994, van Rooij 2009), in particular in relation to sorites paradoxes. The connection between vagueness and epistemic logic can be found in the idea that vague predicates admit borderline cases, namely cases that are unclear, or that are neither definitely P, nor definitely non-P. Likewise, higher-order vagueness is described by the existence of cases that are neither definitely definitely P, nor definitely non-definitely P, and so on. As a consequence, one way to model vagueness is by focussing on the semantics of epistemic operators such as "definitely" or "clearly". In the first two of these lectures, I propose to review and compare the logics of vagueness proposed by Williamson (1994), Halpern (2004) and Bonnay and Egré (2009), Bonnay and Egré (forthcoming), which all build on non-transitive structures, but give different accounts of the iteration of operators such as "clearly" or "definitely". I plan to show applications of these logics to epistemic paradoxes that have a soritical structure. In the third lecture, I will present work in progress with Robert van Rooij and Pablo Cobreros on the definition of a qualitative logic of non-transitive entailment, also based on the use of non-transitive structures, and intended to deal with the standard sorites paradox proper.