

# Awareness and the Preface Paradox

Igor Sedlár

Comenius University in Bratislava

## Abstract

The Preface Paradox (PP) is an interesting problem concerning the criteria of *rationality* of beliefs, see (Makinson, 1965). Suppose an agent rationally comes to believe that  $p_1, \dots, p_n$ , but also, as she has learned from previous experience, that at least one of her beliefs is false. Such a modest attitude to one's own beliefs, based on previous experience, is perfectly rational. But, it is argued, the set of beliefs containing  $p_1, \dots, p_n$  and "At least one of my beliefs is false" is *inconsistent*. Moreover, it seems that one may argue along similar lines that modesty itself conduces to inconsistency. Therefore, consistency is not a necessary condition of rationality.

The main aim of my talk is to present a novel solution to PP. The solution makes substantial use of formal models of *awareness* (Fagin and Halpern, 1988) and of modal logics with *propositional quantifiers* (Fine, 1970). I shall argue that the belief in "At least one of my beliefs is false" is properly represented as an explicit (aware) belief concerning a formula with propositional quantifiers. Here, I use the framework of (Halpern and Rêgo, 2009). It is proved that, within the framework of propositionally quantified doxastic logic with awareness, the agent's belief that at least one of her beliefs is false does not conduce to inconsistency of her belief set, if negative introspection is not assumed. It is also shown that the belief in "At least one of my beliefs is false" is *self-fulfilling*.

## References

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