Logic and Rational Requirements

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My research project is about the relation between logic and rationality. The aim is to develop a set of rational requirements which correspond to logical implication.

The main requirement is wide-scoped, i.e. it has the form "If Γ implies A, then rationality requires you not to believe some sentences of Γ or to believe A". Any requirement of this kind has to respond to the classic objections by Harman (1986): it should not ask the agent to believe all the irrelevant consequences of her beliefs, nor the implied propositions that are too hard to grasp.

With respect to the problem of *relevance*, the requirement applies just in case the premises and the conclusion are contextually relevant. In order to make this notion formally precise, I use the concept of weak relative closure, a modification of Hansson's notion of relative closure (Hansson 1999).

With respect to the problem of *complexity*, the requirement applies whenever the inference is recognizable for the agent. This notion of recognizability is formally represented by a partially ordered scale of the difficulty of inferences, which is weaker than Jago's (2009) notion of complexity as number of steps.

Finally, I argue that this synchronic requirement cannot explain how we can rationally base a belief on other beliefs. Therefore, I try to develop complementary *basing permissions* (Broome 2014) for logic, using the much discussed notion of *ground* (Fine 2012). I argue that, whenever Γ grounds A, if you believe Γ you can rationally believe A on the basis of believing Γ.

References

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