Report on
Computer-Assisted Analysis of the
Anderson-Hájek Ontological Controversy

December 21, 2016

Gödel proposed an axiomatic approach to the ontological argument. He gave a set of axioms and if one accepted the axioms, a version of the ontological argument could be carried out. He did not publish his axioms, but they became generally known, initially via Dana Scott, and later in a more thorough version through the publication of Gödel's collected works. Not surprisingly, this did not settle the status of the ontological argument, for several reasons. The axioms are in a quantified modal logic, and it is not first-order. Gödel never specified what his detailed logical assumptions were. Under a plausible understanding of them, Sobel showed they were (perhaps) too strong and allowed one to prove something that could be interpreted as saying there is no free will—modal collapse. Various people have proposed alternatives to some of Gödel's axioms, with claims and counter-claims made for the different axiom systems and their relationships to each other. What axioms one *should* adopt is a philosophical question. Relationships between axiom systems is a formal question, and it is what the present paper addresses.

But this is not quite the correct description of the present paper. The authors have made use of several automated theorem provers and model builders, to investigate the power of and relationships between various Gödel-like axiomatizations that have been proposed in the literature. This work is fully available for inspection on the internet. The paper refereed here is a description and summary of the results. This moves things into a peculiar and unfamiliar setting. Neither the paper nor the internet files are complete in themselves. Checking the internet files would involve knowing details of the uses and reliabilities of the implementations used. Then there is also the issue of the assumptions made in formalization—for instance, quantifiers are understood as actualist, though no philosophical argument is given for this.

One might call the combination of published report and internet files hard-core technical philosophy. I am not in a position to evaluate correctness of the formal results. But, as in physics for example, all the details are available so that others may try to replicate the 'experimental' results if desired. In its present form, this is probably new for formal philosophy and should be published for this reason if for no other.

If the report is published, it will be the gateway to the whole enterprise, report plus software plus formalizations, for most people. As such, I would urge some serious rewriting. The assumption throughout is that the reader is already familiar with the ontological argument, with Gödel's formalization, and with the various objections and alternatives that have been proposed. I don't believe this is intended for a philosophy counterpart of Physical Reviews, so more background and discussion is needed. Most philosophers will find the kind of approach followed here to be revolutionary, but first they have to read it. Make the report user-friendly.