

# Computational Hermeneutics: Using Computers to Interpret Philosophical Arguments

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We introduce a method named *computational hermeneutics* aimed at improving the tasks of logical analysis and interpretation of arguments. This method has been developed as a result of reflecting upon previous work on the application of Automated Theorem Proving (ATP) for the formalization and assessment of arguments in metaphysics (e.g. [2, 3, 5]) and is specially suited to the utilization of different kinds of logics (intensional, modal, higher-order, etc.) through the technique of semantic embeddings [1].

*Computational hermeneutics* has been inspired by Donald Davidson’s theory of *radical interpretation* [4] and can be seen as an instance of the hypothetico-deductive method which exploits the computing power and usability of modern theorem provers: We work iteratively on an argument by temporarily choosing a logic for formalization; fixing truth-values and inferential relations among its sentences; and then working back and forth on the formalization of its axioms and theorems, by making gradual adjustments while getting real-time feedback about the suitability of our speculations. In this fashion, by engaging in a dialectic process of questions and answers –of conjectures and refutations– we work our way towards an adequate logical analysis and interpretation of an argument by circular movements between its parts and the whole (cf. hermeneutic circle).

## References

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