

8.5. Proofs by choice and proofs of existence

8.5.0. Overview

Although formal proofs for disjunction involve some new ideas, these are mainly recombinations of ideas used for disjunction and universals.

8.5.1. The role of existentials in entailment

The role of existentials in entailment is analogous to the role of disjunctions in much the way the role of universals is analogous to that of conjunctions.

8.5.2. Derivations for existentials

Derivation rules for existentials then also exhibit an analogy with those for disjunction, with two basic rules supplemented by an often useful attachment rule.

8.5.3. First-order logic

This completes our account of entailment for first-order logic; higher-order logics concern quantifiers that generalize from predicates rather than individual terms but no complete system of derivations can be given for them.