7.5. General arguments

7.5.0. Overview

We have answered questions about entailment concerning truth-functional compounds by turning them into questions about their immediate components (or sentences contradictory to them). The largest component formulas of sentences formed by quantifiers usually contain free variables, so we will look at the sentences that are the result of putting closed terms in place of these variables.

7.5.1. Conjunction and universal quantification
An unrestricted universal sentence behaves like a conjunction of sentences saying of each particular thing what the universal says of everything.

7.5.2. The role of generalizations in entailment
The laws of entailment for unrestricted universals treat them as conjunctions of their instances; but they differ from the laws for conjunction itself in ways that reflect the fact that a universal has indefinitely many instances and that they are all predications of the same abstract.

7.5.3. Derivations for universals
Because a universal has indefinitely many instances, we cannot consider each in a derivation. Instead, we establish a universal by arguing about a single "typical" instance, and we exploit a generalization only partially to extract those instances that are relevant to the argument we are considering.