

Johannes Hafner

THE CONCEPT OF LOGICAL CONSEQUENCE

**Bolzano, Tarski, and the recent controversy
over the Tarskian/model-theoretic account**

Prospectus for the qualifying exam in philosophical logic

There is some confusion in the literature as to what the relationship is between Bolzano's concept of deducibility [Ableitbarkeit] and Tarski's concept of logical consequence. Some logic textbooks simply identify the two (e.g. Flum/Ebbinghaus or Scholz/Hasenjaeger). Relying on [10], Tarski more cautiously acknowledged a "far-reaching analogy between [his] definition of consequence and the one suggested by B. Bolzano", whereas Etchemendy construes a sharp contrast between them (though admittedly doing Bolzano's account some injustice). A detailed analysis and reconstruction of Bolzano's approach (which certainly has a number of peculiarities absent from standard formal semantics) from a modern perspective is essential for clarifying the historical development of one of the most fundamental concepts of formal logic.

Such a reconstruction has to compare and contrast Bolzano with Tarski's definition given in 1936 and also with the standard model-theoretic one. The divergence of the latter two is one of the startling claims put forward by Etchemendy recently. He does not only challenge the received view, which has it that modern model theory simply originated with Tarski, but he also attempts to show that Tarski's definition is inadequate. According to Etchemendy there are severe deficiencies in both Tarski's and also in the model-theoretic account, and he claims furthermore to have discovered a simple (modal) fallacy in Tarski's justification of his concept of logical consequence.

Etchemendy's criticism has in turn provoked a couple of detailed rejoinders in defence of Tarski. However, the whole issue doesn't seem to be settled yet, it remains an open area of study.

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