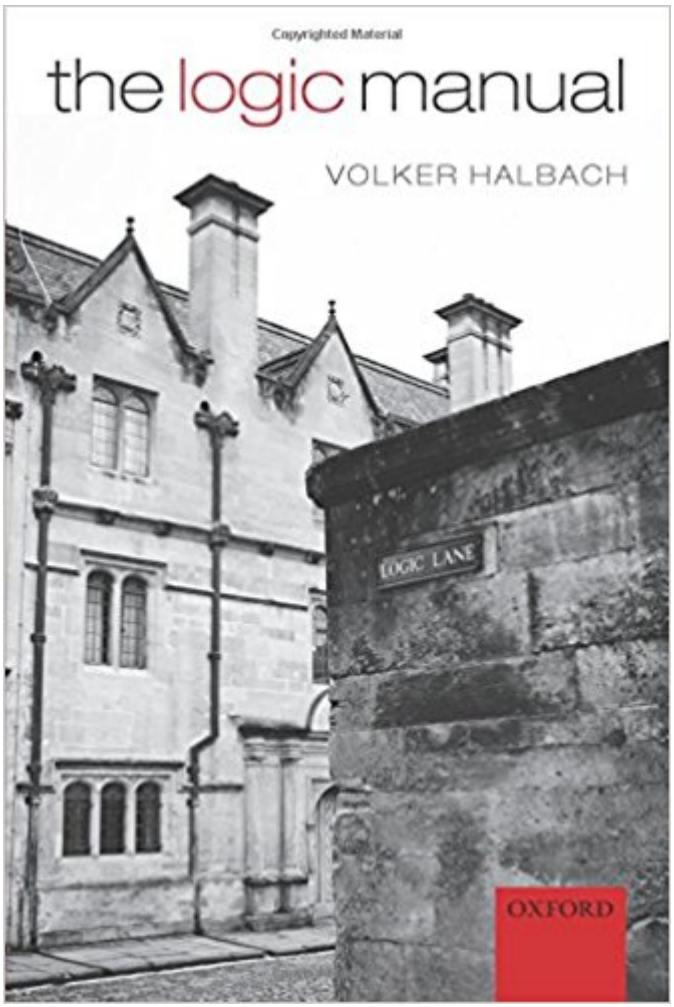
The Logic Manual



Synopsis

An exceptionally clear, concise, and affordable introduction to logic, The Logic Manual carefully walks beginning philosophy students through the fundamentals, offering them a real understanding of how and why logic works. Author Volker Halbach presents essential concepts through examples, informal explanations, and abstract definitions. Topics covered include propositional and predicate logic (with and without identity) and an account of the semantics of these languages, including definitions of truth and satisfaction. In addition, natural deduction is used as a proof system.Extensively class-tested, The Logic Manual provides the best introduction available to the general, abstract approach to thinking about language, logic, and semantics that is characteristic of contemporary philosophy. A Companion Website provides exercises, examples, and sample examination papers.

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Customer Reviews

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I’m new to modern logic, and have been reading introduction-level books for about the last six months or so. The Logic Manual is one of the better ones, but perhaps not for starters; I think TarskisÃ Â Introduction to LogicÃ Â is an excellent place to start, then Jc. Beall’s Logic, and then possibly the Manual or Lemmon’s intro book. I read the Manual before Lemmon and Lemmon’s natural deduction proof system was a breeze, but that’s mainly because the Manual’s natural

deduction system was less than clear until I used the associated on-line lecture notes. Those combined with the manual led to a bit of an "ah-ha" moment. Basically I think Halbach provides a bit less than full disclosure in his explanations, or is assuming some basic level of knowledge of logic of his readers. Without Tarski (at least) I would have been at a complete loss with the Manual; with Tarski and Beall (both 5 stars) I still had a bit of an issue, but only really with the natural deduction proofs.Having access to the on line materials is certainly a plus with this one, and I highly recommend it as a second or third read for those new to philosophical logic.

I assigned this book for a logic course pitched to philosophy graduates and technically-minded undergraduates at a research university. The text appealed to me because it gives lucid and technically correct presentations of classical approaches to natural deduction and formal semantics, quite close to those of Gentzen and Tarski. The author also deserves credit for securing its publication as an inexpensive and well-designed paperback.Mainly the text proved a disappointment. In my experience, what gets people hooked on logic is the puzzles---simple-looking questions which, sometimes after hours of struggle, illuminate some deep pattern or symmetry. The aim of this text, though, seems mainly to be to inculcate extremely 'correct' notations and definitions. The exercises (including the supplementary online exercises) are generally trivial applications of the formalism. My students also complained that the book's exposition lacked motivation.The Gentzen-style approach to natural deduction is great for metatheory, but awkward for actually building proofs. So why are the exercises on natural deduction just routine proof constructions? Why not include, for example, questions about admissibility of inference rules?Tarski-style semantics is already notationally awkward, but the author's choices make this worse. For example, instead of $M\models \phi$ we get $|\phi|_M=1$. The notation for the value of a variable x under an assignment β is $|x|^\beta_M$, even though it is simply the value of the function β and so could be written $\beta(x)$. Altogether the discussion of semantics looks like a thicket of brambles. And after building up the formalism the author forgoes stimulating students with puzzles which could make the formalism seem worthwhile in the first place, for example regarding definability. Instead the semantic exercises are just routine verifications that the machine clicks forward properly.So all in all, this book presents logic as a ritualistic or even priestly discipline where the main thing is to be notationally correct. It doesn't stimulate the creative thinking which makes logic fun.Some examples of introductory books which (notwithstanding their own pros and cons) do convey the pleasure of puzzling include Barwise et al's *Language Proof and Logic*, Goldfarb's *Deductive Logic*, and Smullyan's *Logical Labyrinths*. Sadly, none of those exudes the

philosophical purity of Halbach. But, better to start with puzzles---let precision arise as needed.

I really think this work could have been a little clearer. The early chapters feel a little rushed. Sometimes (even for logicians) brevity is not a virtue.

Very well written intro to logic but has the weird structure of later chapters being sometimes a lot simpler than earlier chapters. The beginning chapter on relations seems unnecessarily complex especially being in the first chapter.