There have been books written since 1997 both on Hume's ethics and on metaethics generally which make no mention of Gerhard Schurz's *The Is-Ought Problem*. I don't say that they are *ipso facto* bad books since they may have merits which make up for this glaring defect. But Schurz's magnificent *The Is-Ought Problem* is a major contribution to both logic and metaethics and ethicists who disregard it do so at their intellectual peril.

The Is-Ought Problem is devoted to 'Hume's thesis', the claim that you can't get an 'Ought' from an 'Is', a moral conclusion from non-moral premises. But this thesis requires clarification. Does it mean that you cannot derive an 'Ought' from an 'Is', i.e. that a moral conclusion cannot be a logical consequence of non-moral premises? Or does it mean that no 'Ought' can be *entailed* by an 'Is', since there are no analytic bridge principles linking the moral and the non-moral.? (I assume that A entails B iff B is the logical consequence of A plus some set of analytic truths.) We cannot answer these questions until we determine which words count as logical constants. Given a strict conception of logic we can distinguish between consequence and entailment and hence between the two versions of Hume's thesis. But if you think that other symbols besides '&', '~', (some kind of) conditional and the quantifiers might qualify as logical constants, things become rather more messy. When should an analytic truth be recognized as a logical truth and allowed to restrict the range of models that determine the consequence relation? (B is a consequence of A in a 'logic' L iff it is impossible to devise a permissible model for A \cup {B} such that A is true and B false. A symbol Ψ qualifies as a logical constant with respect to a given 'logic' iff the range of permissible models is restricted so that none are admitted which falsify certain theses specific to Ψ . Thus the 'O' of deontic logic qualifies as a logical constant within standard deontic logics because no models are permitted which falsify eg: (OA & OB) \supset O(A & B)). There does not seem to be a principled answer to the question of where logic ends and mere analyticities begin, so, in the absence of clear-cut principles, we have to be pragmatic. Logic is traditionally concerned with the form rather than the content of an argument. This suggests a fairly conservative policy whereby only a few skeletal words achieve the dignity of logical constants. The more constants we assume and the more 'analytic truths' we incorporate into the logic, the looser will be the consequence-relation and the greater the risk that controversial theses, which ought to be displayed as premises, will be lost in the logical machinery. Schurz is a moderate conservative with respect to the logical constants (indeed, a bit too moderate for my taste). He

admits the truth-functional connectives, the quantifiers, identity, necessity and possibility. But he also admits the 'O' and the 'P' of deontic logic, thereby assuming that there are principles peculiar to and pervasive of all moral or normative reasoning (a distinctly dubious assumption). But a problem remains. For we have to decide not only which words are to count as constants but which theses involving those words qualify as logical truths. There is a huge lattice of modal 'logics', a huge lattice of deontic 'logics' and consequently a vast range of multi-modal alethic/deontic 'logics'. The correct logic in Schurz's view is the one whose principles are '"truly" analytically true' (p. 15). But determining which that is would take a book in itself, and even then might not arrive at a secure result.

Schurz's solution is to suspend judgment and to discuss the Is/Ought question in the context of all those alethic/deontic logics that can be represented as extensions of a minimal alethic/deontic logic K^{ad} *except* - and this is an important proviso - those which include analytic bridge principles as axiom-schemata. What is an analytic bridge principle? Informally it is a principle which explicitly links Is and Ought. More formally an axiom schema X is a bridge principle iff X contains at least one schematic letter which has at least one occurrence within the scope of an 'O' and at least one occurrence outside the scope of any 'O' (p. 91). An obvious example is Ought-Implies-Can: $OA \supset \Diamond A$.

This strategy enables Schurz to divide and conquer. First he asks whether it is possible to derive an Ought from an Is in logics which do not include any explicit bridge principles - no trivial undertaking given the vast range of logics involved (chs. 1-5). He then asks whether and in what sense it is possible to derive an Ought from an Is within logics which do include plausible bridge principles i.e. whether and in what sense an Is could entail an Ought if those principles were true (ch. 6). Finally he asks whether there *are* any such analytic bridge principles and concludes that there are none, or at least, none which are not practically trivial in a certain sense (ch 8). Take Ought-Implies-Can, $OA \supset \Diamond A$, which in Schurz's view is the most plausible of the analytic bridge principles. When $OA \supset \Diamond A$ is added to a standard alethic/deontic logic, it does indeed license inferences from purely descriptive But when those conclusions are practically premises to moral conclusions. normative - which means, roughly, when they prescribe actions - it also follows that those actions are actually performed. In other words Ought-Implies-Can does not allow you to infer duties from facts unless those facts also imply that the duties are done (ch. 6).

But can we derive an Ought from an Is without positing specific bridge principles? Yes - if A. N. Prior is to be believed. In 1960 Prior proposed a number of counterexamples to No-Ought-From-is, valid inferences from Ought-free premises to apparently moral conclusions. Here is one:

l) Tea-drinking is common in England.

Therefore:

2) Either tea-drinking is common in England or all New Zealanders ought to be shot.

Some Humeans have sought to deal with these counterexamples by monsterbarring. Prior's conclusions are not purely moral. Conclusion 2), for example, is a disjunction with moral and non-moral disjuncts. Such mixed sentences are monsters. Perhaps No-Ought-From-Is should be reinterpreted as the claim that you can't get a purely moral conclusion from non-moral premises? Not only is this the coward's way out - it rather gives the game away since 'impure' or 'mixed' Nevertheless, Schurz christens this propositions play a major part in ethics. proposal 'the Special Hume thesis' (or SH for short) and investigates it in ch.5. It turns out to be multiply ambiguous (What exactly do we mean by a purely moral or normative proposition?) and, what is worse, false, at least if it is construed as a general claim about all alethic/deontic logics without bridge principles. Though SH is provable for some such logics it is violated by others. It is not just the monstrous mixed sentences that can be derived from non-moral premises. In some logics purely moral conclusions can be derived from such premises too.

Schurz prefers a bolder strategy. Though conclusion 2) follows from 1), conclusion 2') also follows:

2') Either tea-drinking is common in England or all New Zealanders ought NOT to be shot

Thus the conclusion of the inference is, in Schurz's jargon, Ought-irrelevant. The clause specifying the shooting of New Zealanders can be replaced with anything whatever, including its opposite, *salva validitate*, that is, without prejudice to the validity of the resulting inference. Prior's other counterexamples suffer from the same defect. This suggests the following conjecture which Schurz labels the general Hume thesis or GH: if a mixed conclusion A is derivable from purely descriptive premises D, then it is Ought-irrelevant, that is, it is possible to uniformly replace all

of those predicates lying within the scope of an Ought-operator with (possibly complex) predicates of the same arity without prejudice to the validity of the resulting inference. Thus, if it is possible to infer a mixed conclusion A from non-moral premises D which involves a duty to smite the godless, you can also infer parallel conclusions A' and A'' which involve, respectively, a duty to smite the godly and a duty NOT to smite the godless. It turns out - and this 'turns out' conceals a vast amount of logical toil - that GH holds in all alethic/deontic logics representable without bridge principles (chs. 1, 2, 3 & 5) so long as identity is not treated as a constant. But even then the Is/Ought inferences which are licensed are O-trivial in the sense defined above (p. 24 and chs. 8 & 10). Thus Hume' thesis is vindicated albeit in an amended form. Instead of Hume's No-Ought-From-Is, we get Schurz's (admittedly less pithy) No-Non-Ought-Irrelevant-Ought-From -Is.

There is much else in this book - the pious hope that Schurz's conclusions will make for tolerance in moral debate, some applications to real-world arguments, and a lengthy discussion of 'Hume's thesis in its extended sense' - the claim that you cannot justify moral values by an appeal to the empirical facts. Schurz does not just think that you cannot derive a (non-Ought-Irrelevant) Ought from an Is. He also argues that you cannot justify an Ought inductively by deriving empirical consequences which are subsequently confirmed by the facts. (I found this part less convincing.) There is also a chapter with the intriguing title 'The Problems of Identity and Existence'. This is not what you might think - an existential meditation on Life, Personhood and Morality - but a chapter on the problems that arise when you admit the identity predicate into your logic and allow for variable domains. It is important to stress that although I have approached it from the side of meta-ethics, this is very much a logician's book. It is, perhaps, of particular interest to relevant logicians. One might characterize Schurz's approach as 'relevance within the bounds of classical logic alone'. Where a relevant logician might dismiss an inference as invalid, Schurz would admit its validity but dismiss parts of its conclusion as irrelevant.

Despite its many virtues, the book has its faults. Schurz's English prose, though clear and engaging, could have done with a going-over by a native speaker. Both as a reader and as a reviewer, I could have done with an index. I was continually flipping back and forth in search of lemmata, proofs, propositions and discussions. (I did not find the 'Table of Results' at the end much help.) It is difficult to get to grips with the book without defacing it - annotations and turned down pages are something of a necessity. Moreover Schurz is addicted to the kinds of

formulations that seem elegant and perspicuous to trained logicians but are merely mystifying to ordinary mortals. There is a certain amount of 'surplus logic' which could have been replaced or supplemented with ordinary language explanations. But the chief problem with the book - it hardly constitutes a defect, since the nature of Schurz's enterprise makes it unavoidable - is that it is so damned difficult. The blurb boasts that the introductory chapters make the text understandable 'for nonlogicians, ethicists, social scientists and students of philosophy'. Not without an advanced undergraduate training in logic they don't! Frankly the book would be a rather testing text for a graduate seminar in philosophical logic. You can't introduce 'new proof techniques' for dealing with 'very broad classes of logics' (as the blurb also boasts) and expect to carry every novice with you. Nevertheless, this is a magisterial work and no serious student of Hume, of metaethics or of philosophical logic can afford to ignore it.

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