

Rebutting formally valid counterexamples to the Humean “is-ought” dictum

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Abstract Various formally valid counterexamples have been adduced against the Humean dictum that one cannot derive an “ought” from an “is.” There are formal rebuttals—some very sophisticated now (e.g., Charles R. Pigden’s and Gerhard Schurz’s)—to such counterexamples. But what follows is an intuitive and informal argument against them. I maintain that it is better than these sophisticated formal defenses of the Humean dictum and that it also helps us see why it implausible to think that we can be as decisive about the truth or falsity of the dictum as both the formal counterexamples or formal barriers to them purport to be.

Keywords Deriving “ought” from “is” · Formal counterexamples · Hume · Pigden · Schurz

1 Introduction

Beginning mainly with Prior,¹ some ingeniously simple, formally valid counterexamples have been adduced against the Humean dictum that one cannot derive an “ought” from an “is,” or against the Naturalistic Fallacy, as the derivation is sometimes called (wrongly, I think).² There have been, in turn, formal rebuttals, some very sophisticated now. In particular, Charles Pigden and (the especially thorough) Gerhard Schurz have

¹ See [Prior \(1960\)](#).

² See [Frankena \(1939, pp. 51–52\)](#), [Searle \(1964, p. 101\)](#), Cf. [Williams \(1985, pp. 123f\)](#), which suggests how the dictum and the fallacy might have got conflated. Thanks to my colleague Paul Roth for first calling my attention to the fact that we probably ought not to conflate them.

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constructed barriers meant to block all would-be formally valid counterexamples to the no-*ought*-from an-*is* dictum.³ I will argue that they do not succeed, and develop instead an intuitive and informal barrier against such counterexamples, which, I argue, succeeds where these two widely acknowledged formal ones do not.⁴

The essential insight behind the informal barrier I develop goes back to Shorter.⁵ But, as I explain later, Shorter linked his discussion to questions about soundness that weakened the force of his argument. The state of the art *formal* barriers recently developed by Pigden and Schurz have the ambitious goal of establishing a barrier to is-ought inferences that lies in the nature of logical inference itself. For this reason and others validity rather than soundness is the issue.

If successful, a formal barrier would make reliance on our ordinary understanding of the issues obsolete. As all successful formalizations do, it would accurately reflect our ordinary understanding, or the best part of it, and provide a *provable* result, in this case a *proof* of the Humean dictum. But I believe it is precisely in this respect that both Pigden and Schurz fail to reach their ambitious goal: neither one accounts properly for our ordinary concept of guidance—of what it is for an “ought” to guide us. This is made especially evident in light of a new and not yet much discussed counterexample, due to Gideon Rosen, one that also helps us see why it is so hard to be decisive about the truth or falsity of the Humean dictum, i.e. one that helps us see how the dictum raises an enduring philosophical problem.

It is perhaps worth mentioning here too, by the way, that the concept of guidance I press throughout also calls into doubt an assumption—widely held—that sentences containing “ought” or other normative terms are closed under negation.⁶

Finally, that the famous dictum does indeed raise an enduring philosophical problem is indicated by the wide range of competent opinion about it. In fact there is the *whole* range of opinion: from the view that the dictum is trivially false to the view that it is profoundly true.⁷ Notably, Prior himself once thought he had firmly established its truth, and then later came to see it as nearly trivially false (see Prior 1960, p. 199). But perhaps the clearest sign that the derivation of “ought” from “is” raises an enduring philosophical problem is that the issue has a mature life of its own, independent of the interpretation of Hume’s texts. In the arguments that follow there is likewise not much direct concern with the interpretation of Hume⁸ (although I believe my main claims confirm Hume’s idea that there is an inferential gap between “ought” and “is”).

³ See Pigden (1989), Schurz (1997).

⁴ There is now one other formal barrier to contend with, aside from those of Pigden and Schurz, namely Restall and Russell’s (forthcoming). I hope to discuss this in another place.

⁵ See Shorter (1961).

⁶ See pp. 30ff, below.

⁷ Cf. Pigden (forthcoming, pp. 1–2). Thanks to Charles Pigden for permission to cite this article.

⁸ Which explains why I never say “Hume’s” dictum.

2 The *flurg* argument: a new counterexample to the Humean dictum

I begin, then, with a new and not yet much discussed counterexample, due to Gideon Rosen.⁹ This new counterexample allows me to draw out most of what I need for every major point in the rest of the paper, so I will dwell on it a while. It goes like this: Define “flurg” to mean “to do something one ought not to do in front of the children.” Then, the following is a valid inference from an “is” to an “ought:”

(Flurg Argument)

Jones is in front of the children.

Therefore, Jones ought not to flurg.

The argument is not formally valid as such, but by replacing “flurg” with its definition we get pretty close:

(Flurg Argument*)

Jones is in front of the children.

Therefore, Jones ought not to do something one ought not to do in front of the children.

We will consider a completely formal version of this in a moment. But it is worth dwelling on the semi-formal version. It is similar to this well-known one from Prior (1960):

(The Undertaker Argument)

Undertakers are church officers.

Therefore undertakers ought to do whatever church officers ought to do.

Both arguments seem suspicious to almost everyone. The *flurg* argument might seem a *little* bit better insofar as the premise seems closer to a pure “is” (non-normative, purely descriptive or what have you) statement than Prior’s. Prior’s undertaker premise might seem to have already smuggled in an “ought,” since the concept of a church officer might seem to involve the concept of having certain duties. But we need not worry about this, since any argument of the following form will serve Prior’s purpose:

All F are G. Therefore all F ought to do whatever G ought to do.

(Let F = snakes and G = reptiles.)

Arguably pure “is’s,” then, can be used in the premise of either type of argument. Nevertheless, it is more illuminating for me to rely on Rosen’s version, as will be evident later.

So let us continue, then, with our preliminary analysis of the *flurg* argument, and the initial sense many have that it can readily be dismissed as a bit of formal trickery. The argument works by stipulating the meaning of a word “flurg.” Now, of course, this is one thing that raises suspicions. I have heard it said, e.g., that the stipulation

⁹ Attributed to Rosen by Russell (2003, p. 5).

introduces a vicious circularity. But we can display a valid form of the argument in predicate logic, stepwise, like so:

(Formalized Flurg Argument)

Fa .: For all actions x (if it is the case that for every person y (if Fy then y ought not do x) then a ought not do x).

Fa .: (x)((y)(Fy → *O*–D(y,x)) → *O*–D(a,x)).

(I italicize the “*O*” here in order to indicate that it is an operator (e.g., “it is obligatory that” rather than a predicate)).

Now this formalized version contains a so-called *mixed* sentence in the conclusion because the **Fy** is not in the scope of an ***O***. Some logicians reject mixed sentences¹⁰ because, among other things, they seem to be partly normative, partly not, and thus not straightforwardly either. But as many, from Prior (1960) to Schurz (1997), have pointed out, this just seems obviously false when we consider the sort of claims that typically guide us in action, e.g., “If it looks like rain, then I ought to bring an umbrella.”

However, there is in fact something suspicious about just coining an ostensibly normative term like “flurg” and producing a valid argument like the *flurg* argument. We might just as well have coined the term “blurg” to mean “to do something one ought not to do in any actual circumstances.” This yields another valid inference from “is” to “ought”:

(Blurg Argument)

Jones is in some actual circumstances.

Therefore, Jones ought not to blurg.

Here we derive, apparently, a kind of categorical imperative against *blurg*ing. This confirms our sense that there is something shady about the style of counterexample, and that the problem with it must lie at least in part in the arbitrariness of the stipulated terms. However, I doubt that there is a crisp, compelling objection here. For one thing, there are many acceptable arguments that depend on more or less arbitrarily stipulated meanings.

So, there is nothing obviously question begging or viciously arbitrary about the *flurg*-style counterexamples. It seems possible for words like “flurg” or “blurg” to emerge in a language. And, as we have seen, the formalized version of the *flurg* argument is *not* circular, and the same is true of the formalization of the *blurg* argument, since it is essentially the same. Less formally: an argument with one simple (non-compound) sentence as premise cannot be circular if it is possible for the premise to be false and the conclusion true. And in the *flurg* argument, as in the *blurg* argument, it is possible for the one simple premise to be *false* and the conclusion *true*. This is possible in the *flurg* argument, if e.g., everything that one ought not to do in front of the children is also something one ought not to do in front of some group of persons not

¹⁰ Schurz (1997, p. 22), lists and discusses the relevant authors.

including the children.¹¹ The possibility is particularly clear if we make the definition of “flurg” a little more specific, by making “flurg” mean “to do something one ought not to do in front of anyone 10 years of age or less.”¹² Now, as in the original argument, we have an apparently valid inference from “is” to “ought,” namely:

(Slightly Revised Flurg Argument)

Jones is in front of ten year olds.

Therefore Jones ought not to flurg.

And it is possible that Jones is in front of *eleven* year olds only and that everything one ought not to do in front of 10 year olds (and under), one ought also not to do in front of 11 year olds (or ten and a half year olds, or etc.).

So far, then, we do not have a clear and compelling objection to these (let us call them) *flurg*-style counterexamples.

3 Guidance: the main intuitive barrier to formal counterexamples to the Humean dictum

But there is an effective objection to the *flurg*-style counterexamples, one based on our concept of guidance. *Flurg*-style conclusions do not guide, they do not tell us what in particular we ought or ought not to do in front of the children or in any other circumstances, not given the background assumptions in the controversy over the Humean dictum.

In the background is the Humean idea that reason alone cannot tell us what we ought to do, not even if we throw in some “matters of fact” (truths that contain no “ought”) to aid it.¹³ The Humean dictum—no *ought* from an *is*—is a way of epitomizing this Humean idea. And the counterexamples are supposed to refute it by showing that we can quite plainly derive a *flurg*-style “ought” by reason and matters of fact alone, because we derive it through the use of deductively valid forms of inference whose premises contain no “ought.” But, then, in determining what in particular these derived *flurg*-style conclusions say we ought not to do, we must limit ourselves to what is likewise derivable logically from the conclusion that one ought not to *flurg* or *blurg* etc. So consider the conclusion that one ought not do what one ought not to do in front of the children (or at all), it says nothing about *what* it is that we ought not to do, if anything—not so long as we limit ourselves to what is logically derivable from the conclusion, especially if the logical derivation must be more or less as evident and uncontroversial as an obviously deductively valid one.

Then, the *flurg*-style conclusions do not as a matter of logic, or even meaning, alone tell us what in particular (if anything) we ought to do (not even if we find ourselves in front of the children or etc.). Or, more carefully, *if* they do, there is nothing in the

¹¹ It is possible in the *blurg* argument if, e.g., Jones is in a possible world that diverges from the actual world in some fairly trivial way, one that makes no difference to what any human ought to do—e.g., a world, otherwise like the actual, but which ends a split second earlier than the actual world.

¹² Thanks to my colleague, Jonathan Ellis, for this point.

¹³ Cf. Mackie (1980, Chap. IV), and Stroud (1977, Chap. VIII).

flurg-style counterexamples that makes it evident that they do, especially not in view of the philosophical reflections that make the Humean dictum plausible in the first place.¹⁴ There is of course an obvious logical relationship between the premises and the conclusion of the *flurg*-style counterexamples; anyone who understands the terms can see that the arguments are valid. However, when we consider (i) any particular prohibitions we might care to name (cursing or lying, say) and (ii) the concepts of *flurg* or *blurg*, we do not immediately discern the same logical relationship as that which evidently and immediately holds between the premise and conclusion of the *flurg* argument. Given what Hume and Humeans argue, not even torture or murder or the like can be assumed to display the sort of evident logical or rational relation we must have between the *flurg*-style conclusions and their instances.

This is *not* to say that *flurg*-style conclusions *cannot* guide. There are contexts in which they do in fact guide at least some people. For example, some people believe they ought not to curse in front of the children (or ever). But what is at issue in the controversy over the Humean dictum is the Humean contention that no particular action we care to list—cursing or any other—is, as matter of reason (and “is’s”) alone, prohibited in front of the children, or at all. And there is nothing about the *flurg*-style counterexamples that offers evidence to the contrary. If there is a route by logic, meaning, or concepts (or anything else plausibly thought to involve “reason alone”) from the *flurg*-style conclusions to one or another more specific prohibitions, nothing in the *flurg*-style arguments makes it manifest in the way the validity of the argument itself is manifest. But that is what in fact is required of the argument if it is to serve as a clear counterexample, one that does not leave controversial what was controversial in the first place.

We are in a dialectical context in which we cannot take it for granted that the *flurg* or *blurg* conclusions manifestly imply that we ought not to perform actions generally considered obviously to fall under *flurg* or *blurg*, etc. (e.g., cursing or torture or both). We cannot take it for granted that those actions are indeed the instances of *flurg* or *blurg*, or even that there are any instances at all. We know, e.g., that many philosophers (Humean and otherwise) argue that the categorical *blurg* prohibition in fact picks out no action at all, since there is nothing such that it is forbidden in all actual circumstances. And even if we grant that the *blurg* prohibition picks out some specific action or other—i.e. that the concept of *blurg* has some instances—the prohibition still does not give us any guidance unless we can (at the very least) derive some of those instances from the concepts involved. Otherwise we have shown at most that there is something we ought never do but, without more specific information about what that is, we have failed to show anything that actually guides. And if it were immediately evident, or if we could otherwise take it for granted, that one or another specific prohibition was implied by the concepts involved in *blurg*, or *flurg* etc., then we could have refuted Hume’s dictum with *flurg*-style arguments that explicitly picked out those prohibitions, like so: **Jones is in some actual circumstance. Therefore Jones ought not to torture anyone.** Or likewise: **Jones is in front of the children. Therefore**

¹⁴ Again, see Mackie (1980) and Stroud (1977), Chaps. IV and VIII, respectively.

Jones ought not to curse. Or, if not torture or cursing, then whatever is supposed to be obviously implied by the concept of *flurg* or of *blurg*.

These considerations also show, I think, why we are right to feel suspicious about the *flurg*-style counterexamples—as well as other, more discussed, counterexamples we will exam shortly—even though they are obviously valid derivations of an “ought” from an (at least arguably pure) “is.” The ingenious ease with which they logically derive an “ought” from an “is” is real, but, in the end, irrelevant, inasmuch as that same logical ease and force fails to make it likewise evident what are at least some instances of *flurg* or *blurg* etc. We may (even justifiably) think that there are certain obvious instances; but nothing in the counterexamples shows that, in thinking so, we are depending only on logically valid forms of inference or on anything else like that that would more or less uncontroversially count as a purely rational form of inference (e.g., those depending on certain definitional or analytic connections). For it may be that we are (perhaps necessarily) relying on rationally un-assessable sources of normativity: e.g., certain brute contingencies of human nature, or entrenched social expedients, about which reason is silent. This is, of course, the sort of thing many Humean’s famously and forcefully contend.

Those on the other side of the dispute may question many of the assumptions or arguments that support the Humean dictum. They may question the distinction between matters of descriptive fact and norms (including, of course, ought-claims among other norms or valuations). They may question certain assumptions Humeans make about reason or logic or conceptual containment and so on. Still, as things stand, it may be impossible to get from the *flurg*-style conclusions to a level of specificity we can act on, unless we rely on something that reason alone cannot warrant or assess (not even with the aid of more matters of fact).

Of course, whether or not we must, as Humeans contend, rely on a non-rational element in our reasonings about the “oughts” that actually guide us is a bigger question than the one we are considering: namely whether *flurg*-style counterexamples evidently show we need not. In order to address the bigger question we’d have to investigate what might or might not be “reason” alone beyond obvious classical logical validity.

Finally, all the same applies to Prior’s closely related undertaker argument. If an undertaker is informed that he is also a church officer, he may immediately (and perhaps correctly) accept a church officer’s duties. And he may have no difficulty determining what these duties are since they may all be explicitly listed in the work contract or whatnot. But none of this makes it immediately evident that the undertaker ought, as a matter of reason alone, accept the duties on the list rather than quit or renegotiate his position or try to undermine the church from within, or etc. There is nothing to show that as a matter of reason (plus his being an undertaker etc.) alone, he ought to do or refrain from doing one of these or any other action. There is of course an evident purely rational relation expressed in “If undertakers are church officers then undertakers ought to do whatever church officers ought to do.” But, given what is at issue, this relation does not establish that there is a comparable one between being an undertaker, or church officer, and any particular prohibition or duty one cares to list. Certainly there is none to show that an officer ought to do whatever is expected of him by his contract, or his institution or superiors. To pick up the rhetoric a little: “If college trained German conscripts are German army officers, then they ought to do whatever German

army officers ought to do,” expresses a transparent purely rational relationship, but not one that likewise transparently establishes that those in the relevant circumstances should do what is expected of them by their superiors or institution.

4 The formal literature: substitution *salva validitate*

Then, without support from more specific contexts that may very well include support from rationally un-assessable or even unwarranted attitudes or beliefs, the *flurg*-style conclusions are practically empty, and thus irrelevant to the challenge laid down by the Humean dictum, if the challenge is understood to deny that reason alone can lead to something that actually guides in the relevant circumstances. I believe that much the same can be said about the more familiar, formal counterexamples to the Humean dictum. That will be the focus of the next section.

The purpose of the present section is to begin to compare the guidance barrier with the state-of-the art formal barriers to *is-ought* inferences developed by Pigden (1989) and Schurz (1997), and to begin to show that these barriers do not succeed.

In the formal literature, it is well known that there are “vacuous” or “irrelevant” occurrences of “ought”—occurrences that seem to render the derivation of an “ought” from an “is” entirely uninteresting. The formal notion of vacuity or irrelevance we are about to assess can be explained this way. The “oughts” in the premises and conclusion of an argument are vacuous or irrelevant when, given the truth of the premises of the argument, the truth of the conclusion is unaffected by uniform substitution of the “oughts” (or what is in their scope) throughout the argument, with some other grammatically correct expression. So, e.g., according to this criterion of vacuity or irrelevance, the “oughts” in the following argument are vacuous or irrelevant:

**Either Jones is in front of adults alone or he ought to avoid cursing.
Jones is not in front of adults alone.
Therefore, Jones ought to avoid cursing.**

This argument remains valid after uniform substitution of the “oughts” (or what is in their scope) with some other grammatically correct expression. The term of art for this phenomenon is that there is substitutability *salva validitate* of the relevant expressions. And it seems to indicate that we have an empty or irrelevant form of reasoning, norm-wise. The emptiness or irrelevance can be made especially poignant by substituting “ought not” for “ought.”

This point about substitution is used as a general defense of the Humean dictum, by Pigden (1989, see especially Sect. 3) and Schurz (1997, see especially Chap. 3). Indeed, given the background assumptions each variously employs, every formal counterexample that I know of is susceptible to their claim of substitutability *salva validitate*. Now there are many technicalities in the full presentation of this sort of barrier to is-to-ought inferences, including important technical differences in how each author develops the barrier and general proof of the dictum. E.g., Schurz states the substitutability barrier in terms of substitution of the *predicates* or other expressions that fall within the scope of the “oughts,” rather than in terms of substituting the “oughts” themselves. But, for our purposes, what is important is that both Pigden and Schurz use

essentially the same idea. The logical systems they are willing to allow are different, but each in his own way attempts to block all putative inferences from “is” to “ought” by showing that the inferences are necessarily vacuous or irrelevant due to uniform substitutability of the “oughts” (or uniform substitutability of the expressions that fall within their scope), with any other grammatically correct expressions.

As noted, the vacuity can be especially poignant when validity is preserved even through replacement of “ought” by “ought not,” or vice versa (or when the analogous thing is done with the relevant expressions within their scope). Neither Pigden nor Schurz discusses it, but the *flurg* argument exhibits this kind of vacuity. Thus consider substitution in the conclusion of that argument (the only part of the argument containing “oughts”):

(New conclusion to the *Flurg* Argument)

Jones ought to do something one ought to do in front of the children.

This new conclusion is the result of our having first spelt out the definition of *flurg* and then uniformly replacing “ought not” with “ought.” The substitution which results has no effect on the validity of the original *flurg* argument, i.e. this new conclusion follows validly from the premise: **Jones is in front of the children.** So the argument seems to be defeated as a counterexample to the Humean dictum, if we accept the substitution barrier just described. And, as Schurz and Pigden show whenever they are confirming the generality of their proofs, there is also substitutability *salva validitate* in all of the most discussed formal counterexamples in the literature since Prior, including Prior’s famous counterexamples.

So it may seem, then, that we can dispense with the notion of guidance as a barrier and fall back on this structural barrier, which seems to exhibit formally and therefore quite generally the insight implicit in the ordinary notion that some valid derivations of an “ought” from an “is” are empty or irrelevant to action. But I do not think this is correct.

That the substitution barriers do not make the same point as the point about guidance can be seen this way: the problem with the *flurg*-style counterexamples is not so much that validity is preserved through the proposed substitutions, rather it’s the simple fact that the conclusions themselves do not guide in any obvious way, i.e. not in a way that obviously relies only on logically valid (or something tolerably close) forms of inference from the concept of *flurg* to its instances. There is no need to relate the conclusions to the premises in order to see that we might very well need information going beyond that provided by logical validity, or some other (arguably) purely rational form of inference, before the *flurg* conclusion is of any obvious practical use. Or, more carefully, nothing about the *flurg*-argument shows otherwise. So then, we see straightaway that, as they stand, *flurg*-style arguments do not of themselves constitute counterexamples to the Humean dictum; they do not provide an obviously valid derivation of some information that guides us from the concept of *flurg* itself. The point about substitution *salva validitate* would be at best an unnecessarily indirect way of making ultimately the same point as this one, *if* it did ultimately make the same point. And it does not, for the reasons just given and also because it is an entirely different thing to conclude that there is in fact *no* logical, or close to logical, relationship

between *flurg* and any of its instances. This is what we would have to conclude if we accepted that the possibility of substitution *salva validitate* established that, so far as logic (or anything else plausibly thought to be reason alone) was concerned, the concept of *flurg* was empty or irrelevant with respect to information about what action we should perform or not.

I admit that this conclusion can seem compelling because the possibility of substituting (e.g.,) *ought not*s for the *ought*s in the *flurg*-style counterexamples shows the *ought*s to be totally irrelevant to the validity of the argument. The *ought*s seem to be empty place-holders. But it's clear that the *flurg*-style conclusions *can* and *do* guide some people, given that they know what "flurg" means. And for all we've said, maybe they guide by logic or something plausibly thought to be close enough to logic to present an interesting challenge to the Humean dictum. We can't conclude otherwise, not *just because* the *flurg*-style arguments fail to show that the *flurg* conclusions *do* guide by logic, or something tolerably close, alone. In arguing that the *flurg*-style counterexamples to the Humean dictum fail to do what they purport to do, I have only tried to show that they do not deliver conclusions that tell us to do one action or another. But I have been able to show this only because there is no claim about action related to the *flurg* conclusion with anything like the transparent and uncontroversial logical connection that exists between *flurg* premise and conclusion. This is, of course, *not* a proof that there is *no* logical connection between the *flurg* conclusion and certain actions.¹⁵

More to the point, the fact that there is substitutability *salva validitate* does not prove it either. What substitutability shows at most is that so far as formal logic is concerned there is a kind of arbitrariness in whatever norms we may derive from mere "is" statements. We might say, there is no reason to derive one norm rather than another, or, perhaps, so far as formal logic is concerned it does not matter which we derive, even in case of an ought-claim or its opposite.

The original *flurg* argument,

Jones is in front of the children. Therefore Jones ought not to flurg,

makes it clear that this arbitrariness applies at most only to *formally* valid derivations. For the original *flurg* argument is clearly valid inasmuch as the conclusion clearly and necessarily follows from the premise. Yet, *this* argument, where we retain the word "flurg," doesn't survive the substitution of "ought" for "ought not" etc. It is only when all the "oughts" are spelt out that we see the possibility of substitutability and consequent arbitrariness. But how could seeing *that* show us that there is no specific action *necessarily* ruled out by the concept of what one ought *not* to do in front of the children (nor ruled in by the concept of what one *ought* to do in front of the children)? How does the possibility of substitutability show that there is no necessary connection,

¹⁵ Consider the claim, "one ought not to do what one ought not to do." Given an argument with any premise whatsoever and this as the conclusion, there is substitutability of "ought" for "ought not" (or any other grammatically appropriate term) without loss of validity. This is so from the more basic fact that there is no loss of truth, i.e. there is substitution *salva veritate*. Would this be a reason for thinking, straightaway, that the claim could not guide? See pp. 38f., below, for considerations showing that it would not be. Or even that it could not guide by reason alone? Or, rather, would the formal feature of substitution *salva veritate* be just what we should expect of something that has the look of a *prima facie* axiom of practical reasoning?

say, between not *flurging* and torturing, or that the connection is not backed by considerations that, though not formal, are as rational as those that inform the formal systems of reason, or that inform the judgment that substitutability indicates a kind of arbitrariness?

5 Some familiar counterexamples

In this section I want to investigate the guidance barrier's effectiveness against other, more familiar, formal counterexamples, and, with these in mind, to continue to compare it to the formal barrier of substitution *salva validitate*.

A certain semi-technical side result will come out of the discussion in this section. It is widely held that sentences containing "ought," or other normative terms, are closed under negation. But I show that this is questionable. Moreover, in the course of making this point we will entertain counter-examples to the Humean dictum from non-standard logics, such as relevance logic.

But first, here are some familiar and relatively simple formally valid counterexamples we have not yet considered. For arbitrary "is" sentence, **I**, and arbitrary "ought" sentence, **O**,

- (i) **I** & **¬I**. Therefore **O**.
- (ii) **I**. Therefore **O** v **¬O**.
- (iii) **I**. Therefore **¬I** → **O**.

The conclusion in (ii) is consistent with any and all action, so, like the *flurg* conclusion, it is also defeated straightaway by the concept of guidance, i.e. independently of the point about substitution. But (i) and (iii) have conclusions that guide when the variables are filled in by one or another of many action guiding sentences available (e.g., let **I**=The sky is clear; **O**=I ought to take an umbrella). So, they seem not to be barred by the guidance barrier. I think this is only apparent, as I show in moment. But it's worth mentioning, by the way, that many would be reluctant to rest their case on these particular examples. Many would be happy to reject (i), in particular, for reasons that have nothing to do with issues about guidance or substitution. For example, (i) immediately suggests to many people that the problem lies in the promiscuity of the standard rule that anything follows from a contradiction. (i) might then be blocked by considerations leading to the various relevance logics; and perhaps same goes for (iii).¹⁶ I will discuss relevance a little more in a moment.

But, returning now to our comparative assessment, notice that in all three, (i)–(iii), validity is preserved through uniform substitutions, and so, they are all caught by the substitution barrier. Here, then, we can appreciate the force and appeal of the substitution barrier, and a certain advantage it seems to have over the guidance barrier. For, although the conclusions in (i) and (iii) guide (assuming **O** stands in for something that guides, which of course it can), these guiding conclusions seem to be derived in an entirely arbitrary way, inasmuch as we could substitute **¬O** for **O** in the derivation. And, thus, as far as logic is concerned, we have no reason to derive one rather than the

¹⁶ But for a bracing defense of standard (or so called "classical") logic, including the standard rule that anything follows from a contradiction, see Burgess (2005).

other. As Pigden likes to say, this illustrates the conservativeness of standard logic: you only get from it what you put in, so non-normative in, non-normative out, as it were. (A point Schurz is eager to *criticize*, since it makes the *is-ought* barrier so easy to establish—easier than it is, anyway, when we reject Pigden’s unstructured sentential variables (or corresponding predicates) for *ought* statements, and replace them with serious deontic operators and so forth, as Schurz wants to do.)¹⁷

Of course, there are countless formal manipulations like (i), (ii) and (iii), in standard sentential logic, which do not yield a truly action guiding conclusion, or which do not get past the substitution barrier.¹⁸ Would the more intuitive restrictions of relevance logic help produce better counterexamples? Consider, as Gillian Russell (2003, p. 4) points out, that $\neg I$ relevantly implies $\neg(I \& O)$, and that $(I \& O)$ relevantly implies O . Now, if O is normative then by Hume’s dictum anything that implies it is too, so $(I \& O)$ is normative. If we assume that normativity and non-normativity are closed under negation—i.e. that the negation of any normative claim is itself normative and that the negation of a non-normative claim is non-normative—then *we’ve relevantly derived a normative claim*, $\neg(I \& O)$, from a *non-normative claim*, $\neg I$. Humberstone (1982, p. 468) gives a similar example: I relevantly implies $(I \vee O)$, so $(I \vee O)$ is non-normative. But, then, by closure under negation, so is $\neg(I \vee O)$. But that relevantly implies $\neg O$, which is normative.

There is a difficulty about responding to any counterexamples from relevance logic, since there are various systems, some adhering more closely to standard logic than others. But there is at least one response worth making. The above counterexamples depend upon the assumption that there is closure under negation for normativity (i.e. for normative sentences, including, of course, those containing “oughts” that guide) and non-normativity. This may seem to be a natural and safe assumption, but if arbitrary normative O stands in for statements that *guide* then *it is not at all clear that normativity is closed under negation*. Even if $(I \& O)$ guides (since, e.g., it implies O , which guides), is it clear that $\neg(I \& O)$ guides? Well, it does guide, if the logic allows us to go from the negated conjunction to $\neg(I \vee O)$ (by De Morgan’s Law) and then again to $(I \rightarrow \neg O)$. But then this allows quite a lot of irrelevance between antecedent and consequent, if the rule of addition is retained.

Consider also this: from closure under negation for normativity (including, of course, guiding “oughts”) and from the fact that $(O \vee \neg O)$ does *not* guide (since it is consistent with any and all action) we can get that the negation, $\neg(O \vee \neg O)$, does not guide either, and thus, again, by De Morgan’s plus Double Negation, that $(\neg O \& O)$ does not guide, even though it implies O , or $\neg O$. That is, if $(O \vee \neg O)$ is non-normative, not guiding (which seems obvious) then $(\neg O \& O)$ is too, even though it implies O . But, of course, this is why we ought to be suspicious of closure under negation, since O might say something patently normative: e.g., I ought to take an umbrella.

Now, it seems to be commonly assumed that there *is* closure under negation for normativity (particularly, normative “oughts”). So this point is worth emphasizing in

¹⁷ See Schurz (1997, p. 81). Cf. Pigden’s excellent reply in Pigden (forthcoming).

¹⁸ My colleague, Richard Otte, has pointed out to me that, in standard logic, I is equivalent to $[(I \vee O) \& (I \vee \neg O)]$. Then every “is” is *equivalent* to an “ought!” And, again, Schurz (1997) provides a thorough study of all such standard logical manipulations (see the especially helpful Chaps. 3 and 9).

its own right: No logic that accepts (a) DeMorgan's law, (b) tautologies and their negations as well formed formulas, and (c) simplification will have closure under negation for normativity or non-normativity, if guidance is the criterion of normative "oughts."

Humberstone (1982, p. 469) notes that the closure assumption is in some tension with the Humean dictum, and that in his own defense of the dictum "only a very restricted form of [closure under negation] could be salvaged." But if the informal notion of guidance is the criterion of the normativity of "oughts", the closure assumption ought to be rejected without further ado, so far as I can tell. Perhaps this could be proved formally. It would mean laying down a formal definition of guidance, though. And, in a way, I am questioning throughout whether any such thing is necessary or desirable. Clearly, though, the assumption that normativity is closed under negation is questionable.

What's emerged is that certain valid argument forms do in fact lead to guiding conclusions from non-normative premises. These seem to slip past the guidance barrier. On the other hand, the substitution barrier seems to show what's wrong with them, though. It shows that, although these argument forms directly imply conclusions that guide, the guiding conclusions are arbitrary. From **I**, we may indeed derive the guiding $\neg\mathbf{I} \rightarrow \mathbf{O}$, but $\neg\mathbf{I} \rightarrow \neg\mathbf{O}$ follows just as well. This is reflected in the fact that there is substitution *salva validitate* of the normative terms. The same goes for any guiding conclusion that follows from a contradiction.

However the very considerations that seem to favor the substitution barrier here also show that its appeal lies in how it reflects the arbitrariness of any given guiding conclusion we may derive. We have no reason to derive one such conclusion rather than its contrary so far as the argument forms, (i) and (iii), go. And this is to say that, so far as the argument forms go, there is no guidance by reason alone, not where reason is identified with classically valid forms of inference (or something tolerably close). We see in (i) and (iii) that reason is indifferent about which guiding conclusions we draw from these valid argument forms. But, and this is very important, that reason is indifferent here is something we can appreciate, whether or not substitution *salva validitate* is possible in all cases of *is-ought* derivations, let alone the question of whether it is a barrier in the very nature of logical inference (which is not evident anyway). The real work in blocking these, and so far as I know, any other valid counterexamples, is done by our ordinary and intuitive understanding of what it is for something to guide, necessarily or otherwise. Here, as before (in the discussion of *flurg* arguments), we rely on a judgment about the arbitrariness of deriving one conclusion rather than another. This judgment is of course not a formal rule that establishes that one can never validly derive an "ought" from any "is," but something that frustrates, in all the derivations we have been considering, any attempt to figure out what we should specifically do or not do, given such derivations (especially if we must figure it out only on the basis of something more or less as transparently and purely rational as formal logic).

6 Concluding remarks

In a brief, early response to Prior, Shorter made what seems to me to be the same basic point about guidance I have used here, but he relied on the concept of *soundness* in

his objection to Prior.¹⁹ He was objecting in particular to a famous counterexample of Prior's we have not yet considered but which goes basically as follows.

(A) Tea drinking is common in England or all New Zealanders ought to be shot.
Tea drinking is not common in England.
Therefore all New Zealanders ought to be shot.

(B) Tea drinking is common in England.
Therefore either tea drinking is common in England or all New Zealanders ought to be shot.

Many people are inclined to say that (B) fails because the conclusion is not normative. But then of course they will be forced to accept (A) as a counterexample. In any case the disjunction in question seems clearly to be the sort of thing that can guide, especially if we convert it to its truth functionally equivalent conditional. There is no essential difference guidance-wise between it and "If it rains, I ought to take an umbrella." So it seems quite implausible to claim that such "mixed" sentences are neither normative nor non-normative.

Shorter pointed out that it's not possible for both arguments, (A) and (B), to be *sound*. And he seemed to think this showed that we can't get any guidance from either of these linked counterexamples. We will be guided by something false, or else if we try to correct for this we will not have available a valid argument form any more.

But I believe Shorter's true insight is lost if we put the point this way. For if someone argues validly from false premises to a guiding conclusion, that of itself does not vitiate the conclusion's guidingness. What is at issue is the logical relationship between a non-normative and normative claim, a claim containing "ought" and one not containing it, for example. The truth or falsity of the non-normative claim is not the issue, the issue is whether the premise necessarily implies the conclusion. Prior showed that simple addition and contraposition is sufficient to show that a non-normative premise does imply a normative one, in a perfectly ordinary sense of normativity (e.g., in terms of what in fact commonly guides).

The question Hume raised, or at least inspired, is about whether someone can reason unfallaciously from a non-normative premise to a normative one for guidance. There is no fallacy, naturalistic or otherwise, in someone reasoning validly from a false premise. So soundness is not relevant in considering whether Prior's counterexamples or any other formal counterexamples succeed. We've seen that the real problem for such counterexamples to the Humean dictum is that although we can validly derive a normative claim from a non-normative one, we can derive the opposite too, so far as reason is concerned. And thus, as Shorter saw, so far as getting any guidance from reason alone, in this limited but uncontroversial sense of reason alone (= validity in standard logic), we're in no position to conclude that we ought to do one thing rather than another.

¹⁹ See Shorter (1961). Also, everyone is indebted to Humberstone's (1982) development of Shorter (and for calling our attention to Shorter's neglected piece), but Humberstone too is concerned throughout with questions of soundness rather than just validity.

Now reason, like life, is bigger than logic. And we have not considered anything much about what reason might be beyond logic, and as for logic we have mostly limited ourselves to so-called classically valid forms of inference or to what's tolerably close to these. This is OK, since all we need to see is that the formal counterexamples we've considered are not evident and uncontroversial counterexamples to the view that reason can guide (alone or with the aid of purely descriptive claims or the like). And to see this we need only to rely on the notion of reason that those counterexamples employ.

The notion of guidance has likewise been left rather indeterminate or vague. Does the street corner preacher's sign "Repent" guide? Does a clearly marked out trail in the woods guide? Does the North Star guide? And so on.²⁰ Well, for the sake of the argument we can be generous and say "Yes" to all. We can easily imagine uncontroversial cases in which they all do guide. In fact, I think that many apparently empty claims, e.g., "He is who he is" often guide (helps us see, e.g., that we ought to give up doing what we are doing to try to change him, or worrying about him or any number of things). And likewise for many other claims that take the form of a tautology. To return to *flurg* style imperatives, I believe "He ought not to do what he ought not to do" can guide, especially if said in a certain tone, or with a certain inflection, in certain circumstances. It would be interesting and helpful to give an account of such things (as I hope to do in another place) for its own sake and especially for the sake of trying to come to grips with the Humean dictum beyond the question at issue. But, again, the question at issue is quite circumscribed: do any of the formal derivations of "ought" from "is" show—with the same evident logical or rational relation that they establish between premises and conclusion—that we ought to repent, or go up the mountain on that path rather than another, or stop trying to change him, or do the right thing, or anything else? The answer to that seems to be clear and relatively easy to see. What's harder is the Humean dictum itself and the enduring questions about the scope and nature of reason it raises. So, although I have confirmed it in a limited way, I have not tried to settle Hume's dictum. On the contrary, if anything I've shown why it is so hard to settle since it seems quite likely that if we are to settle it (or decide that it is unsettle-able) we must engage in the broad and enduring philosophical inquiry that Hume's views about the nature of reason and action launched.²¹

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²⁰ Thanks to an anonymous referee from another journal for these examples and for pointing out their importance to my argument.

²¹ Many thanks to Richard Otte, Julie Tannenbaum, Jonathan Ellis and Mark Scala, for providing me with invaluable aid, advice, and challenges, while I was struggling to get from the basic idea to the final form of the argument.

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