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The Epistemic Consequences of Forced Choice

A number of authors have converged on the consensus that practical factors can affect whether a subject knows – an idea that has come to be known as 'pragmatic encroachment' on knowledge. Most theorists who accept this conclusion offer evidence *that* it is true, but few have explored *why* it is true, and most discussions glance quickly over the idea that 'stakes' matter without being careful about exactly which kinds of practical factors can matter, and *how* they can matter. But it is important to understand how it could be true that practical factors can make a difference for knowledge. We know that Pascal's wager – even if it is a good one – does not make it easier to know that God exists. And cases like Pascal's have made it seem obvious to many philosophers over a long period of time that practical considerations are not the right kind of thing to be relevant in epistemology. So defenders of pragmatic encroachment must explain how practical factors *could* matter, and they must do so in a way that clarifies whether we can accept pragmatic encroachment without being led to the conclusion that Pascal's wager makes it easier to know that God exists – or similarly, for other pragmatic arguments for belief.

This is why I have been interested, in my work, in explaining how practical considerations do matter for knowledge. A careful and proper way of distinguishing between purely 'epistemic' and non-epistemic reasons, I have argued [Schroeder 2015b], can rule out Pascalian considerations but still leave room for some practical considerations to count as properly epistemic reasons against belief. I have argued [Schroeder 2012a, 2013] that there are, in fact, properly epistemic reasons against belief that are not evidence against the content of that belief, and that among those are considerations whose import is transparently practical – considerations deriving from the consequences of relying on a false belief. I have presented a model of the dynamics of epistemic reasons [Schroeder 2012b] in order to show that the assumption that there really are pragmatic reasons against belief that take this form yields plausible predictions in a wide range of cases, and I have shown [Schroeder 2012b, 2015a] how this model extends to plausible predictions about pragmatic encroachment on knowledge, as well as on rational belief. And in joint work with Jake Ross [Ross and Schroeder 2014] I have been developing an account of the nature of outright belief that I am endeavoring to show in work in progress [Schroeder ms] combines with our best available understanding of the general

distinction between right and wrong kinds of reasons to explain *why* costs of relying on a false belief – but not Pascalian considerations in general – are indeed right-kind reasons against belief. Together, I take this body of work to constitute an illuminating and general picture of the *why* and *how* of pragmatic encroachment, and of the positive contributions in all of my work, this set of ideas is the one I am most confident of actually being *true*.

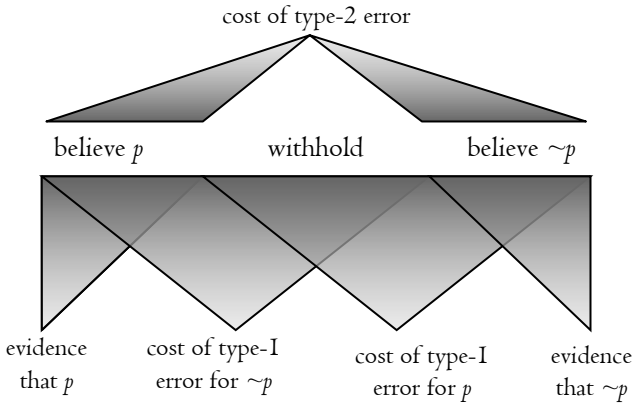
In 'Pragmatic or Pascalian Encroachment? A Problem for Schroeder's Explanation of Pragmatic Encroachment', Andy Mueller poses an objection to this set of ideas, drawn from one of my own examples, originally described in Schroeder [2012b]. In the example, a subject faces a forced choice – she must choose now which of two banks to head towards to try to deposit her check, she knows that only one of them is open now, and she has some evidence that it is the one on Chapala St., but the cost of being wrong is very high. The key feature of the case is that the cost of *inaction* is equally high – just as high as the cost of heading to the wrong bank. Either way, she ends up not depositing her paycheck in time.

> *Forced Choice, High Stakes*: Hannah and her wife Sarah are out driving on Saturday morning, at twenty minutes to noon. Since they have an impending bill coming due, and very little in their account, it is very important that they deposit their paychecks that day, but they have so far forgotten to do so. Sarah remembers that they still haven't deposited their paychecks from Friday, but points out that just one of their bank's two branches is open until noon on Saturdays, but she can't remember which, and there is only time to try one. Hannah says, 'I know which one it is – I was at the branch on Chapala Street two weeks ago and it was open, then. Let's go there.'

In Schroeder [2012b], I used this case in order to illustrate that the pragmatic factors which affect knowledge cannot be understood solely in terms of the costs of error, but need rather to be understood in terms of the interaction effects of reasons for and against withholding, as well as reasons for and against belief. In the remainder of that paper, I offered a simple model to illustrate why. The model is grounded in a pair of assumptions. First, that there are three doxastic options, with respect to any proposition *p* – you can believe *p*, believe ~*p*, or withhold with respect to *p*. And second, that it is epistemically rational to believe *p* just in case believing *p* is better supported by epistemic reasons than either of its doxastic alternatives.

In addition to these modeling assumptions, I added some very simple assumptions about which sorts of things might be epistemic reasons counting in favor of one or more doxastic options. In particular, I assumed that the only epistemic reasons in favor of believing *p* are evidence that *p* (and likewise for ~*p*), and that we can idealize by assuming that the only other epistemic reasons derive from the costs of error. Since the costs of falsely relying on *p* (what I called *type-1 error*) count against believing *p*, I counted those costs as supporting both withholding and believing ~*p*, and that left the question of whether there are any reasons

not to withhold. I assumed that there may be – and that if there are, the costs of failing to form a belief (what I called *type-2 error*) would be among them. Since these count against withholding, I counted them as counting in favor of both belief options. These assumptions led to the following picture:



I could easily have made other assumptions – indeed, the basics of the model are compatible with any assumptions about which considerations count as epistemic reasons in favor of any of the three doxastic options. Its core features are only that the costs of type-I error – which are obviously practical in nature – affect the rationality of belief by counting as epistemic reasons *against* belief (i.e., as epistemic reasons in favor of the alternatives to belief). It is compatible with the basics of this picture that there are additional sources of reasons to withhold (as I argue in Schroeder 2012a) or that there are no properly epistemic reasons against withholding (i.e., that costs of type-2 error, in particular, do not count as such reasons). The point of the model was only to show how fruitful the assumption is that costs of type-I error for *p* matter because they are epistemic reasons against believing *p*.

In particular, in that paper I discussed three further kinds of prediction that obviously follow from my modeling assumptions that seem either right or approximately right, but are obscured by casual talk of 'high stakes'. The first prediction was that in cases of forced choice, the high cost of error will not interfere with knowledge, or will do less to interfere with knowledge. That is what I used the cases discussed by Mueller to explore. (The second and third predictions concerned a distinction in different ways of interfering with knowledge that coincide in typical bank and train cases from the literature.) Mueller thinks that my judgment about the forced choice case is wrong, and that if it is wrong, my account of pragmatic encroachment cannot be fully general. But he also thinks that even if my judgment about the forced choice case is right, my account can't get that judgment right without validating some 'Pascalian' factors to affect knowledge. I'll take each of these claims in turn, and then explain the differences between the model of my [2012b] paper and how I am thinking of it today, and how that relates to cases of forced choice.

Mueller says little about why he thinks that Hannah does not know in her forced choice bank case, other than that it is, in his words, his "own intuition" [239]. So it is hard to know what to respond to about this judgment. It could be – indeed, this is likely given my modeling assumptions – that the case is underdescribed, and that he is latching onto a version of the case that is also consistent with my modeling assumptions, for example because the evidence in the case as I described it is not sufficient for knowledge, under any practical condition. Or it could be that the costs of type-2 error count for less, as epistemic reasons, than the costs of type-1 error, so that raising the costs of type-2 error mitigates the knowledge-undermining effects of the costs of type-1 error but doesn't erase them. Or it could be that I was wrong to assume that there are epistemic reasons against withholding, or that I misidentified them. Each of these diagnoses requires slight tweaks to my model, but none require drastic changes.

Mueller claims that it is a problem for me if I modify my account to accept his verdict about the forced choice case. This is because if Hannah fails to know in this case, that must be because of pragmatic encroachment, but if I accept his verdict about the case, then it will be an example of pragmatic encroachment that I cannot explain. But this is transparently false. By changing the relative weights of the costs of type-2 error, my model can both accept – *and explain* – either verdict in the forced choice case. Of course, if I had believed that Hannah does not know, I would not have presented her case as one where my model does distinctively well – it is only because I thought that Hannah *does* know – or at least that stakes do not interfere with her knowledge – that I took the case to be particularly interesting.

Mueller also makes a further, striking, claim, in the same paragraph [240, bottom]. He claims that although Hannah does not know in the forced choice case, it *is* rational for her to believe. It is true that I cannot explain that combination of claims. My account is built on explaining failures of knowledge *by* explaining failures of rational belief – and cases in which an agent fails to know but it is still rational for her to believe are all cases in which the features in virtue of which she fails to know are ones that she does not know about. In general, very roughly speaking, they are ones that *would* make it irrational for her to believe, if she knew about them (for important qualifications, see Schroeder [2015a]). But Hannah *does* know about the features that make her case high-stakes, and hence about the features that Mueller believes make it a case in which she does not know. So if Mueller's claim is right, then it is rational for Hannah to believe that the bank on Chapala St. will be open, even though she is in a position to know – and may, for all that I have said, even already know – that she does not know and cannot know this. This is a very bad result. It should not be rational to believe things that you know you cannot know. So I take the fact that my account is prevented structurally from being able to capture this combination of claims to be a virtue, not a vice.

So far I've been explaining why my account can in fact go either way on the forced choice case, and can offer an explanation of its verdicts, whichever way it goes. So the first fork of Mueller's dilemma fails. But he also argues that if I maintain my verdict that Hannah does know, then my account cannot avoid letting in Pascalian considerations, after all. This is also wrong.

To begin with a quibble, Pascalian considerations are, by definition (and I should get to say, since it is my term), considerations that resemble Pascal's wager – for example, being offered money to have a particular belief, or having one's family or one's eternal salvation threatened, unless one has it. These are all rewards that attach only to having a particular belief, and my model clearly assumes that they cannot be epistemic reasons for belief – the only epistemic reasons that my model recognizes as supporting only the belief in *p* and no other doxastic option are evidence that *p*. So it is impossible for any other commitments of my model to bring back Pascalian considerations in this narrow sense as mattering for knowledge.

So it can only be in some wider sense that my account could end up with this commitment – and it has yet to be determined whether it would be problematic to allow for Pascalian considerations to bear on belief in any such wider sense. For example, suppose that an agent with borderline evidence for *p* is offered money to make up her mind (in either direction!). That shouldn't be able to tip the balance so that she knows or is in a position to know that *p*. Or suppose that someone who knows that *p* has her family threatened unless she becomes agnostic as to whether *p*. That shouldn't be the right kind of thing to undermine her knowledge. These cases both resemble Pascal's wager strongly, though in these cases the relevant Pascalian reasons count for and against withholding, rather than for or against some particular belief. And it *would* be bad, if my account predicted that these count as epistemic reasons for or against withholding.

But my account does *not* predict that they do. The fact that *some* costs of withholding count as epistemic reasons against withholding does not entail that *all* costs of withholding do. Of course, in [Schroeder 2012b], the only paper of mine that Mueller cites, I did not offer any explanation of *why* some costs of withholding count as epistemic and others do not. But I *did* explicitly assume that only some do – the ones that I called costs of type-2 error. The costs of type-2 error that I had in mind and relied on were costs associated with the need to have a belief on the basis of which to act – not the opportunity cost of monetary rewards for having made up one's mind. And in other works on the nature of the distinction between epistemic and non-epistemic reasons, and on the distinction between right-kind and wrong-kind reasons more generally, even as my views have evolved, I have consistently maintained views which can easily explain why monetary rewards for making up one's mind cannot count as epistemic reasons for belief (compare Schroeder [2007, chapter 7], [2010], [2012a]).

Mueller seems to have had yet a further generalization of the notion of a Pascalian consideration in mind – according to which it is a criterion on any account of epistemic rationality that it exclude any considerations that bear on the benefits or costs of any doxastic option. For example, he says:

> But the costs of not making up one's mind should not be a knowledge making feature. The costs of not making up one's mind are determined by the benefits of making up one's mind. […] We should now see that something has gone wrong. It seems that costs of Type-2 error are closely tied to Pascalian considerations—the benefits of forming a belief. [239]

Here Mueller seems to take for granted that all it takes to count as 'Pascalian' – i.e., as the kind of thing to be avoided – is to be a benefit of forming a belief. Although he does not use this terminology in his paper, Mueller here seems to be taking for granted a controversial and substantive theory about what Pascalian considerations have in common that makes them the 'wrong kind of reason' for playing a role in the determination of the epistemic rationality of belief – a theory known as the object-given/state-given theory. According to this theory, *any* cost or benefit of having *any* state of mind is of the 'wrong kind' of reason for or against that state of mind to count for or against its distinctive rationality, qua that kind of state of mind.

But as I have argued elsewhere at length (Schroeder [2010], [2012a]), the object-given/state-given theory is a bad theory. It leads philosophers to think that the only 'right' kinds of reasons for or against belief are evidence, which leads to deep puzzles about why it isn't rational to believe that *p* when your evidence for *p* barely exceeds your evidence for ~*p*, among others (Schroeder [2015b]). These puzzles evaporate if we embrace the obvious solution that there must be reasons against believing that *p* that are not evidence that ~*p* – and there are indeed natural examples of such reasons, including not just the costs of type-1 error for *p* but also the availability of much more decisive evidence as to whether *p*. And these reasons *do* seem to work by constituting costs of believing that *p* – not just *any* kinds of costs, or Pascalian considerations would be included, but they *are* costs.

So on the interpretation of 'Pascalian considerations' where any state-given reasons for or against belief count as Pascalian, I plead guilty as charged to allowing them in, but ruling such out was never the objective. And with respect to the narrower objectives of ruling out monetary offers for making up one's mind or for withholding, or for forming or giving up a particular belief, I agree that these cannot be allowed to affect knowledge, but on my account they do not. So that concludes my explanation of why both forks of Mueller's dilemma fail.

It is worth, however, calling attention to a quite different flaw in the modeling assumptions of my [2012b] paper. In that paper, I assumed that the rational doxastic option will be whichever is supported by

the most reasons, and I treated reasons *against* one doxastic option as reasons indifferently in *favor* of each of its alternatives. So, for example, I counted the costs of type-I error for *p*, which intuitively are reasons against believing that *p*, as reasons in favor of withholding and also reasons in favor of believing ~*p*.

But one important consequence of these modeling assumptions is that they fail to give any explanation of why withholding is never less epistemically rational than both believing *p* and believing ~*p*. But this is an important generalization. In particular, we never see cases in which the belief that *p* and the belief that ~*p* are both epistemically rational, but it would be epistemically irrational to withhold. On a view on which epistemic rationality is to be explained in terms of the competition between reasons, one would like to explain this in terms of there generally being strong reasons to withhold. But it is very difficult, given the modeling assumptions of my earlier paper, to explain how such reasons to withhold would work. They would need to be relatively weak in order to explain why it can sometimes be rational to believe on the basis of a small (but preponderant) amount of evidence, but no matter how strong they are, the evidence on both sides could be even stronger. So in order for the reasons to withhold to always keep up with the evidence so as to always be better if the evidence is closely tied, the reasons to withhold have to *change* as the evidence changes. None of this is predicted by my model, either as described, or under any obvious amendments.

Fortunately, there are nearby models that do very well by this score. For example, Justin Snedegar [2017] modifies my model under *constrastivist* assumptions, in order to yield the right predictions. He assumes that evidence that ~*p* is always reason to withhold *rather than believe p*, and similarly, evidence that *p* is always reason to withhold *rather than believe* ~*p*. These two assumptions suffice to explain why the reasons to withhold always keep up with the reasons for belief, without swamping them, and all of the other features of my model survive under Snedegar's contrastivist revisions.

I haven't myself yet been persuaded of Snedegar's constrastivism about reasons, and so I've come to accept an alternative revision to my model. On my revision (and this is also a consequence of Snedegar's constrastivism), reasons in favor need to be distinguished from reasons against. So rather than thinking of costs of type-I error for *p* as reasons in favor of both withholding and believing ~*p*, we should just think of them as reasons against believing *p*. Correspondingly, we can no longer think of the rational doxastic option as whichever one is best supported by reasons; instead, we can suppose that believing *p* is rational just in case the reasons in favor of believing *p* balance the reasons against believing *p*, and that withholding is uniquely rational if neither belief is rational, since withholding is simply lacking either belief.

The new model solves the problem about why both beliefs will never be rational by assuming that the reasons against believing *p* include the evidence for ~*p* – and similarly for ~*p*. So in order for the belief that *p* to be rational, the evidence for *p* must outweigh the evidence for ~*p* by at least enough to make up for

the *other* reasons against believing *p* – and in order for the belief that ~*p* to be rational, the evidence for ~*p* must outweigh the evidence for *p* by at least enough to make up for the other reasons against believing *p*. But these are incompatible constraints on the comparison of the evidence, and so it can never be rational for the same agent at the same time to have either belief.

This new model can easily incorporate the costs of type-1 error for *p* as epistemic reasons against believing *p*, and similarly for ~*p*. So it can easily accommodate the principal explanatory virtues of my earlier model as an explanation of pragmatic encroachment. But it is a striking feature of the new model that withholding disappears as a third doxastic option, on a part with belief and belief in the negation. The work that was done in my earlier model by reasons to withhold with respect to *p* is done instead in this model by reasons against believing *p* that are not evidence for ~*p*. And this leaves no obvious place for reasons *against* withholding to figure, either – the very reasons, based on costs of type-2 error, which we've seen earlier are so controversial.

And I've come to think that this is right. This isn't exactly Mueller's judgment about the forced choice cases, but given my modeling assumptions, it is very much in its spirit. There *aren't* any properly epistemic reasons against withholding, because such reasons would have to constitute epistemic reasons indiscriminately in favor of any belief. But either there are no such reasons, or they are very weak. In any given practical situation, such as Hannah's, it is impossible to force a choice between beliefs, because forced action does not require belief. Even if Hannah does not believe that the bank on Chapala will be open, if she is rational, she will be more confident that it will be open than that the other branch will be open, and that is enough for her to act. So it is actually impossible for the costs of the absence of belief to be as high as the costs of false belief, and likely that they are not terribly high, since agents can always retreat to reasoning from credence.

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