

An Instrumentalist Explanation of Pragmatic Encroachment

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Abstract: Many have found it plausible that practical circumstances can affect whether someone is in a position to know or rationally believe a proposition. For example, whether it is rational for a person to believe that the bank will be open tomorrow, can depend not only on the person's evidence, but also on how practically important it is for the person not to be wrong about the bank being open tomorrow. This supposed phenomenon is known as "pragmatic encroachment" on knowledge and rational belief. Assuming that the phenomenon is real, I ask what explains it. I argue that a variant of instrumentalism about epistemic reasons offers a natural explanation, that at the same time is able avoid commitment to a more radical form of pragmatism.

1. Introduction

Many have found it plausible that practical circumstances can affect whether someone is in a position to know or rationally believe a proposition.¹ For example, whether it is epistemically rational for a person to believe that the bank will be open tomorrow, can depend not only on the person's evidence (or similar truth-relevant factors), but also on practical considerations, such as how badly things could go if the person falsely believes that the bank will open. This supposed phenomenon is known as "pragmatic encroachment" on knowledge and rational belief.

The literature on pragmatic encroachment has mainly focused on whether or not the phenomenon is real, and its reality remains controversial.² In this paper, however, I will not contribute to the discussion about the reality of pragmatic encroachment, but instead consider what might explain it, on the supposition that it is real. I argue that a transmission-based version of epistemic instrumentalism offers a natural explanation. Of particular importance for any attempt to explain pragmatic encroachment, is that it avoids commitment to letting practical considerations of the sort involved in Pascal's Wager, and similar examples of practical reasons for belief, have undue influence on what it is epistemically rational to believe. I argue that the instrumentalist explanation succeeds in avoiding this.

¹ For prominent defenses of pragmatic encroachment on knowledge and rational belief, see e.g. Fantl & McGrath (2002; 2007; 2009), Stanley (2005); Schroeder (2012a); Weatherson (2012); Ross & Schroeder (2014); Roeber (2018).

² Prominent skeptics about pragmatic encroachment include Neta (2007); Brown (2008); Nagel (2008); Fumerton (2010); Lackey (2010); Reed (2012); Cohen (2012); Gerken (2017).

The rest of the paper will proceed as follows. In §2, I introduce the phenomenon of pragmatic encroachment. In §3, I introduce some of the difficulties facing explanations of pragmatic encroachment by discussing one of the main proposals for such an explanation, namely that of Mark Schroeder. In §4, I introduce my transmission-based version of epistemic instrumentalism, that I rely on to explain pragmatic encroachment in §5, where I also show how this explanation avoids the difficulties faced by Schroeder’s account, and avoids commitment to a more radical form of pragmatism. §6 is a brief summary and conclusion.

2. Pragmatic Encroachment

We can introduce the phenomenon of pragmatic encroachment by considering the sort of cases that are often taken to motivate it.³ Here is a set of cases from Schroeder (2012a: 266-7), adapted from Stanley (2005) and DeRose (1992). Consider first Low Stakes:

Low Stakes: Hannah and her wife Sarah are driving home on a Friday afternoon. They plan to stop at the bank on the way home to deposit their paychecks. It is not important that they do so, as they have no impending bills. But as they drive past the bank, they notice that the lines inside are very long, as they often are on Friday afternoons. Hannah remembers the bank being open on Saturday morning a few weeks ago, so she says, ‘Fortunately, it will be open tomorrow, so we can just come back.’ In fact, Hannah is right – the bank will be open on Saturday.

Many philosophers share the intuition that Hannah’s belief that the bank will be open could plausibly be considered epistemically rational. Her memory of seeing the bank being open a few weeks ago (coupled with relevant background knowledge) seems sufficient epistemic reason for her to believe that the bank will be open.⁴ But contrast now Low Stakes with High Stakes:

High Stakes: Hannah and her wife Sarah are driving home on a Friday afternoon. They plan to stop at the bank on the way home to deposit their paychecks. Since their mortgage payment is due on Sunday, they have very little in their account, and they are on the brink

³ Not all proponents of pragmatic encroachment base their arguments primarily on intuitions about cases such as these. For example, Fantl & McGrath (2007; 2009) argue that pragmatic encroachment follows from fallibilism about knowledge and certain plausible principles concerning knowledge and action; Weatherson (2012) bases his argument on observations about decision theory; see also Roeber (2018).

⁴ Some philosophers put this intuition in terms of knowledge – as the intuition that Hannah *knows* that the bank will be open. In this paper, I follow a number of recent authors (e.g. Schroeder (2012a); Worsnip (2021); Schmidt (ms)) in focusing on pragmatic encroachment on epistemically rational belief, rather than on knowledge.

of foreclosure, it is very important that they deposit their paychecks by Saturday. But as they drive past the bank, they notice that the lines inside are very long, as they often are on Friday afternoons. Hannah remembers the bank being open on Saturday morning a few weeks ago, so she says, ‘Fortunately, it will be open tomorrow, so we can just come back.’ In fact, Hannah is right – the bank will be open on Saturday.

In contrast with Low Stakes, many philosophers find it intuitive that Hannah’s belief is *not* epistemically rational in High Stakes. Since the two cases do not differ in any epistemic respects (in both cases, Hannah bases her belief on her memory of the bank being open), and only differ in the practical respect of how important it is for the couple to deposit their paychecks by Saturday, it follows that this practical factor is what makes the difference as to whether Hannah’s belief is epistemically rational (if there is, indeed, such a difference).

On the standard understanding, the importance of depositing the checks makes an epistemic difference, because it makes a difference to how badly things could go if Hannah falsely believes that the bank will be open – in the preferred terms of the debate, it makes a difference to the ‘stakes’ involved with believing that the bank will be open. In Low Stakes, if Hannah falsely believes that the bank will be open, and acts on this belief by postponing depositing their checks until Saturday, nothing disastrous will happen – she will merely have wasted a trip to the bank. In High Stakes, however, the consequences of acting in the same way on the false belief will be very bad. So, the costs of having a false belief that the bank will be open (and acting on it) are much greater in High Stakes, than in Low Stakes. Of course, this observation doesn’t by itself suffice to explain the possibility of pragmatic encroachment. It identifies an encroaching factor – the increased cost of believing falsely – but doesn’t explain *how* this factor could influence epistemic rationality. That is the question that I will focus on in the following.

Before doing so, however, it is important to contrast the thesis that there can be pragmatic encroachment on epistemic rationality, with the more straightforward thesis of pragmatism, according to which there can be practical reasons for belief. Some philosophers think that, in addition to epistemic reasons for belief, it is possible for purely practical considerations to directly speak for or against belief.⁵ The most famous examples of such reasons are the ones at play in Pascal’s Wager. As Pascal (1670) pointed out, if God turns out to exist, believers in the existence of God will be rewarded with a heavenly afterlife, whereas non-believers will roast in hell. But if God does not exist, no great cost will be incurred by believing that he does, just as no great benefit will befall the disbelievers. So, whether or not the existence of God is likely on one’s evidence, it

⁵ For some recent defenses of pragmatism, see e.g. Reisner (2009); McCormick (2015); Rinard (2019).

seems prudent to believe in it. In other words, the wager speaks in favor of believing in God (or act to cause such a belief) purely on the basis of practical considerations about the expected costs and benefits of that belief. Simpler cases of practical reasons for belief involve costs or benefits of believing that are entirely independent of whether or not the belief turns out true or false. For example, an eccentric billionaire might offer you \$1M if you can make yourself believe that the 2020 American presidential election was rigged, where you will receive the prize regardless of whether it in fact was rigged or not.

Whatever one might think about the possibility of such practical reasons for belief (I, for one, think that they are possible), the impact they might have on the rationality of belief is importantly different from that which pragmatic encroachment is claimed to have. Whereas practical reasons might affect the *practical* rationality of adopting a belief, the practical considerations that are at play in cases of pragmatic encroachment are supposed to matter to what it would be *epistemically* rational to believe. As we shall see, a central difficulty and important test for explanations of pragmatic encroachment, is to avoid commitment to letting the sort of practical considerations at play in Pascal's Wager and the case of the \$1M award have undue influence on what it is *epistemically* rational to believe, and not just on what it is *practically* rational to believe. Indeed, as Alex Worsnip (2021) has recently argued, any defender of pragmatic encroachment is saddled with the challenge of explaining how there can be pragmatic encroachment on epistemic rationality without letting practical reasons affect epistemic rationality. The difficulty of this challenge will become apparent in the next section, when considering a prominent proposal for an explanation of pragmatic encroachment.

3. Schroeder's Explanation

In a series of papers, Mark Schroeder (2012a; 2012b; 2015; 2017) has developed and defended the perhaps most detailed and promising attempt to explain pragmatic encroachment. Even so, the account faces significant difficulties, that it will be instructive to consider, and important to avoid for any would-be explanation. Schroeder's proposal is grounded in a set of assumptions about what it takes for a doxastic attitude to be epistemically rational. First, he assumes that for any proposition *p*, one can adopt one of three doxastic attitudes: believing *p*, disbelieving *p* (which is equivalent to believing not-*p*), and withholding judgment with respect to *p*. It is then assumed that a doxastic attitude is epistemically rational if and only if it is better supported by epistemic reasons than any of the doxastic alternatives. Given this, the core idea of Schroeder's proposal is that whereas only evidence for *p* can be an epistemic reason for *believing* *p*, a certain kind of practical costs of believing *p* falsely can be an epistemic reason for *withholding* belief. The kind of practical

costs that can play this role, are the costs arising from mistakes we make when we act on false beliefs – costs that are due to beliefs ‘playing their normal role’ as beliefs in motivating action. The classification of this kind of practical consideration as an *epistemic* reason for withholding is justified by Schroeder on the grounds of it carrying the ‘markers’ of epistemic reasons. Mainly, these practical costs count as epistemic reasons to withhold in virtue of it being relatively straightforward to withhold *on the basis* of these costs, without requiring some indirect strategy, as is the case with standard examples of practical reasons for belief. According to Schroeder, I can decide to withhold with respect to a proposition, if I deem the consequences of acting on a false belief sufficiently grave.

Taken together, these claims provide the basis for an explanation of pragmatic encroachment. Consider again Low and High Stakes. We have assumed that Hannah has the same evidence available in the two cases. So, if only evidence for *p* can be an epistemic reason to believe that *p*, Hannah’s epistemic reasons for believing that the bank will be open are equally strong in the two cases. However, the practical costs of believing falsely that the bank will be open are much greater in High Stakes than in Low Stakes. So, if these costs can be a reason to withhold belief, Hannah has stronger reason to withhold in the former case than in the latter. And this may make a difference to what doxastic option Hannah on balance has most reason to adopt. In particular, it can mean that whereas believing that the bank will be open is the epistemically rational option in Low Stakes, withholding is the epistemically rational option in High Stakes. Given Schroeder’s assumptions, we can thus explain the difference in the epistemic rationality of believing that the bank will be open, without moving outside the domain of epistemic reasons.

Although Schroeder’s account is in many ways attractive, it is beset with at least two difficulties that it will be useful to have on the table when comparing Schroeder’s account to my own. First, Schroeder’s account does after all seem committed to letting practical reasons, reminiscent of the sort involved in Pascal’s Wager and promises of monetary rewards, affect what it is epistemically rational to believe. It should be granted that Schroeder’s restriction of epistemically relevant costs to those that are due to beliefs ‘playing their normal role’ affords significant resources in avoiding this difficulty. For example, Schroeder is not committed, as Worsnip (2021: §5.1) supposes that he is, to letting a monetary reward for withholding belief count as an epistemic reason for withholding, since missing out on this reward would not be a cost arising from mistakes we make when acting on false beliefs. Nor does he seem vulnerable to Worsnip’s modified version of Pascal’s Wager, where, if God exists, you will go to heaven if and only if you do not positively believe that God doesn’t exist, and to hell otherwise. Worsnip claims that

Schroeder is committed to letting this be an epistemic reason for withholding belief, but again, the potential cost of going to hell is not a cost of the right kind.⁶

It seems, however, that Schroeder's idea of cost-based epistemic reasons for withholding commits him to cost-based epistemic reasons bearing directly on belief as well. In High Stakes, believing falsely that the bank will be open carries a high cost. As we have seen, according to Schroeder, this is an epistemic reason in favor of withholding, since withholding does not carry a risk of this cost. But Schroeder does not count this cost as an epistemic reason directly against believing that the bank will be open. Otherwise, we would have what seems like a Pascalian reason bearing directly on a specific belief on the basis of its non-epistemic costs. The cost only speaks against believing indirectly, by speaking in favor of an alternative to the belief, namely withholding. But this maneuver raises its own issues. First, it seems to involve an unusual transposing of reasons: a downside of an option (believing that the bank will be open) is counted only as a reason in favor of its alternative (withholding). Of course, it is not in itself unusual to count a downside of an option as a derivative or dependent reason in favor of its alternatives. But in such cases, the downside must still be counted as a non-derivative or independent reason against that option, on which the dependent reason depends – it can't just fall out of the picture, as it seems to do on Schroeder's account.⁷ Second, when a downside of an option is counted as a reason in favor of its alternatives, it should be counted as a reason in favor of *all* of the alternatives; or at least all of the alternatives that are innocent of the relevant downside. But in High Stakes, this includes not only withholding, but also believing that bank will *not* be open, since there is no great cost associated with this belief if it is false. This also has the flavor of a Pascalian reason, since it would be a reason in favor of a specific belief, based on it avoiding certain costs. For these two reasons, it is hard to see how Schroeder can avoid commitment to letting the potential cost of believing falsely that the bank will be open count as a reason directly against that belief, and as a reason in favor of believing that the bank will not be open. And Schroeder counts this reason as an epistemic reason when favoring withholding, he must surely count it as an epistemic reason as well when bearing on these beliefs.

The second difficulty for Schroeder's account has to do with the process of weighing epistemic reasons against each other to determine which doxastic attitude is epistemically rational. On his account, in order for it to be epistemically rational to believe that *p*, doing so must be supported by stronger epistemic reasons than withholding belief. But whereas epistemic reasons for believing *p* can only consist of evidence for *p*, epistemic reasons for withholding can consist

⁶ For further criticisms of Schroeder's account in this vein, see e.g. Mueller (2017) and Schmidt (ms.).

⁷ For a related criticism of Schroeder's account, see Berker (2018, §4.4).

of practical costs associated with false belief. To reach a verdict, we thus have to compare evidential reasons with non-evidential reasons based on costs. But how would that work, exactly? The strength of one's evidential reasons is measured by how probable the relevant proposition is made by one's evidence. By contrast, the strength of one's cost-based reasons is measured by how badly things could go wrong if one adopted the relevant belief. The strengths of the two kinds of reasons are thus measured on very different scales, which makes it difficult to see how they could be weighed against each other. In Selim Berker's (2018) words, evidential reasons and cost-based reasons are 'like oil and water' – their combinatorial properties are just too different for them both to be part of a single coherent assessment of what doxastic attitude there is most reason to adopt. Schroeder (2015) recognizes this sort of difficulty, and has proposed a way of approaching it, but the issue remains fraught.⁸ For consideration of space, I will not delve deeper into it, but it is safe to say that, other things being equal, it is preferable for would-be explanations of pragmatic encroachment not to rely on direct comparisons between evidential and cost-based reasons.

In summary, at least two difficulties threaten Schroeder's account: it has a hard time avoiding commitment to letting practical considerations of the sort involved in Pascal's Wager affect what it is epistemically rational to believe; and it requires us to directly weigh evidential and non-evidential reasons against each other. Obviously, my brief discussion here does not do justice to Schroeder's account, and there may be ways of harnessing it to address these difficulties. But they are illustrative of the kinds of issues facing explanations of pragmatic encroachment, and it will be instructive to see how the account to be defended in the following can avoid them.

4. Transmission-Based Epistemic Instrumentalism

In this section, I introduce the instrumentalist theory of epistemic reasons that I will rely on to explain pragmatic encroachment. In general, epistemic instrumentalism is the view that epistemic reasons and rationality are somehow dependent on, or to be identified with, instrumental reasons and rationality – i.e. the sort of reasons and rationality associated with taking means to one's aims. This basic idea, however, leaves room for a lot of variation.⁹ According to the version that I prefer,

⁸ For a discussion of Schroeder's solution, see Berker (2018). See also Reisner (2008; 2009: ms), and Steglich-Petersen & Skipper (2020b).

⁹ Different versions of epistemic instrumentalism have been defended by e.g. Quine (1967); Foley (1987); Laudan (1990); Kornblith (1993); Nozick (1993); Papineau (1999); Grimm (2009); and Cowie (2014). For criticisms, see e.g. Kelly (2003); Hazlett (2013); and Côté-Bouchard (2015). An important difference concerns whether the instrumentalism pertains to the *normative source* of epistemic reasons (do we have reason to conform to epistemic reasons because doing so is conducive to our aims?), or the *type* of reasons that epistemic reasons belong to (are epistemic reasons themselves, somehow, instrumental reason). The view to be defended here is a form of instrumentalism in the latter sense. For discussion of this distinction, see Côté-Bouchard (2021).

epistemic reasons – the reasons that bear on the epistemic rationality of beliefs – should be identified with a particular class of instrumental reasons.¹⁰

In general, instrumental reasons to ϕ are reasons that obtain in virtue of ϕ -ing being conducive to something else that we aim to achieve, or have reason to achieve. For example, I can have reason to quit smoking, because this is conducive to something else that I have reason to achieve: not getting cancer. Or I can have reason to book a table in advance at my favourite restaurant, because this is conducive to something else that I have reason to achieve: getting a table. Some philosophers think that merely *having* some aim (or desiring or intending something) in itself gives reason to take appropriate means, but that is controversial. If the aim itself is unreasonable, I do not seem to get reason to take appropriate means to the aim simply by having it.¹¹ Instead, I will rely on the less controversial idea that when one has *reason* to pursue an aim, that can give reason to take appropriate means. This idea has been captured by the so-called ‘transmission principle’ for instrumental reasons, according to which reasons for pursuing aims can ‘transmit’ to the means.¹² In addition to capturing this idea, the transmission principle should capture that the *strength* of one’s reasons to take means to an aim depends partly on the strength of one’s reasons to pursue the aim, and partly on how effective the means is likely to be in helping achieve the aim.

That the strength of our reasons to take means depends on the strength of our reasons to pursue the aim seems obvious. For example, other things being equal, I have more reason to take means to avoid losing my job, than I have to take means to avoid losing my place on the Fortnite leaderboard, since it is much more important not to lose my job. Only slightly less obviously, the strength of the transmitted reason to take some particular means, depends on how effective the means is likely to be. Making an effort with my teaching, and regularly watering the flowers in the department lounge, are plausibly both means to keeping my job. But the former is much more

¹⁰ The version of instrumentalism to be defended here builds on Steglich-Petersen (2006; 2009; 2011, 2013; 2018; forthcoming) and Steglich-Petersen & Skipper (2020a; 2020b).

¹¹ This argument is known as the “bootstrapping problem” for so-called narrow-scope principles of instrumental rationality (Bratman 1981). This has often been taken to support a wide-scope interpretation of instrumental rationality, e.g. by Darwall (1983), Broome (1999), and Wallace (2001). For criticism of the wide-scope interpretation, see e.g. Setiya (2007), Bedke (2009), Schroeder (2009), and Kiesewetter (2017). The transmission principle that I will rely on is not a version of the wide-scope principle.

¹² As one would expect, a number of proposals for plausible transmission principles are competing in the literature. “Conservative” principles state that reasons transmit from aims to the means that are *necessary* for the aim. But reasons also seem to transmit to non-necessary means. This suggests that we should adopt a more “liberal” transmission principle that allows reasons to transmit from aims to any of the means that help bring about the aim. It is a principle of this sort that I will rely on. For versions of conservative transmission principles, see e.g. Darwall (1983: 16), Setiya (2007: 660), Bratman (2009: 424), Schroeder (2009: 234), Way (2010: 225), Scanlon (2014: 85), and Kiesewetter (2015). Defenses of or reliance upon liberal transmission principles can be found in Raz (2005), Bedke (2009), Way (2012), Schroeder (2007; 2009), and Kolodny (2018). See also Kiesewetter & Gertken (2021) for discussion.

effective than the latter, and it thus seems plausible that my reason to take the former means is stronger than my reason to take the latter, other things being equal.¹³

To capture these ideas, I will rely on the following transmission principle, inspired by Niko Kolodny's 'General Transmission' principle (2018), but simplified slightly for our purposes:¹⁴

General Instrumental Transmission: If there is reason for one to pursue aim A , and there is positive probability conditional on one's ϕ -ing, that this helps bring about A , then that is a reason for one to ϕ , the strength of which depends on the reason for one to pursue A and the probability.

Some comments are needed to clarify the content of this principle. First, the principle makes no assumptions about the kinds of reasons for pursuing aims that can transmit to means, and as such, it is compatible with many different general normative theories, e.g. that reasons are value-based, based on rules, desires, or something else. Second, as Kolodny (2018) emphasizes, the condition on means that they 'help bring about' the aim should not be construed too narrowly. In particular, it should not be understood as restricted to causing or being part of a cause of the aim becoming realized. It can also amount to constituting, satisfying preconditions of, preventing preventers, and the like. This will become important later on. Third, the principle cashes out the relevant means' degree of effectiveness in terms of how taking the means would affect the probability of the aim being achieved. The relevant kind of probability at play here is epistemic probability.¹⁵ So, when we are to determine whether a reason to pursue an aim is transmitted to a possible means, we have to consider the probability of the aim being realized conditional on one's total evidence plus the hypothetical supposition of taking the means. For example, if I am to determine whether and to what degree my reason to pursue the aim of getting a promotion transmits to the possible means of working longer hours, I have to add the supposition of me working longer hours to my existing relevant evidence (e.g. about my department culture, the official guidelines for promotion, my

¹³ There is an interesting general question about the relationship between principles for instrumental transmission of reasons (and other principles of instrumental reasons and rationality), and the decision theory of how to act rationally in light of the utilities and probabilities of the possible outcomes of one's options. Interestingly, debate in these two areas rarely intersect. For a brief discussion, concluding that the transmission principle's independence from the principles of decision theory, see Kolodny (2018, §8).

¹⁴ In particular, I have omitted from Kolodny's formulation the requirement of means being "non-superfluous" – not because this is not a requirement, but because it is irrelevant for our present purposes.

¹⁵ Why should the relevant probability not be identified with objective chance? Partly, this choice reflects a general commitment to a kind of 'perspectivism' about one's possessed or available reasons (for both actions and beliefs) as being sensitive to one's evidence. It may make sense to also operate with an objective sense of reasons that exists independently of one's evidence. Such reasons, however, would not have direct implications for what one ought to do. For recent defenses of perspectivism, see e.g. Kiesewetter (2017; 2018) and Lord (2018).

ability to work effectively for a long time, and the like), and gauge if the probability of me getting a promotion is higher on that supposition, than it is independently of that supposition.

How does this transmission principle help us understand epistemic reasons? The general idea is that when there are reasons to pursue the characteristically epistemic aims, such reasons will transmit as epistemic reasons to the doxastic attitudes that epistemic reasons bear on, to the extent that there is positive probability on one's evidence of the attitudes helping to bring about the aims. The epistemically rational doxastic attitude to adopt towards a proposition will then be the attitude that is most supported by reasons transmitted from the epistemic aims.

Needless to say, this idea requires a lot of unpacking. First, what are the characteristically epistemic aims? I will assume that the epistemic aims that give rise to epistemic reasons are the twin aims of *believing what is true* and *avoiding believing what is false* with respect to particular propositions.¹⁶ Importantly for our purposes, these aims are separate and don't necessarily go hand in hand. As James (1896) famously pointed out, the most effective means to believing what is true, is to believe *everything*, which is a terrible means to avoid believing what is false. And the most effective means to avoid believing what is false, is to believe nothing at all, which is a terrible means to believing what is true. So, neither aim is worthy of pursuit in isolation from the other, and when we evaluate beliefs and acts of inquiry from an epistemic perspective, we evaluate them as balanced responses to both aims at once. Given this specification of the relevant aims, epistemic reasons for doxastic attitudes are thus generated in the following way:

Instrumental Transmission of Epistemic Reasons for Doxastic Attitudes: If there is reason for one to pursue the aims of coming to a true belief and avoiding a false belief as to whether p , and there is positive probability conditional on one's adopting doxastic attitude A with respect to p , that this helps bring about those aims, then that is an epistemic reason for one to adopt A with respect to p , whose strength depends on the reason for one to pursue the aims and the probability.

Second, what sort of considerations can be reasons for pursuing the epistemic aims of believing what is true and avoid believing what is false with respect to a particular proposition? An important assumption for what follows, is that these reasons will be broadly practical in character. Often, the

¹⁶ As pointed out by an anonymous reviewer, it is in many ways more natural to understand epistemic agents as interested in *answering certain questions*, than as interested in pursuing true beliefs (and avoiding false ones) with respect to particular propositions. In Steglich-Petersen (forthcoming) I show how the transmission principle accounts for this idea, and that the transmission principle for epistemic reasons that I rely on here is in fact a special case of a principle transmitting reasons from aims to pursue answers to questions, to beliefs in answers to those questions. In the present context, however, it is easier to work with the version transmitting reasons from epistemic aims with respect to particular propositions.

reasons will be prudential, in the sense of having to do with one's ability to advance one's own interests. For example, I have good prudential reason to pursue the epistemic aims with respect to where I live, or what my telephone number is. Not having a true belief as to where I live, will make it hard to get there. Having a false belief will get me somewhere wrong. We may also have moral reasons for pursuing the epistemic aims. I may have a moral reason to pursue a true belief as to whether a person lying on the sidewalk is in need of help. Other times still, the reasons may be purely intellectual – it might provide a kind of intellectual pleasure or satisfaction to believe the truth as to whether abstract objects exist, or whether the Copenhagen interpretation of quantum mechanics is correct. Just as the pursuit of ordinary practical aims can be supported by a multitude of different practical considerations, so can the pursuit of the epistemic aims. In what follows, I will primarily discuss cases where certain potential benefits of true beliefs and costs of false beliefs constitute reasons for pursuing the epistemic aims. But this talk of 'costs' and 'benefits' should be understood in an ecumenical sense to encompass a variety of values and considerations.¹⁷ Some philosophers think that having a true belief is somehow of epistemic value in itself, while having a false belief is of disvalue in itself, no matter what the belief is about.¹⁸ I don't agree with this view, but it is compatible with the transmission-based version of instrumentalism that such 'intrinsic' epistemic values also give reason to pursue the epistemic aims. What is important for what follows, however, is that these intrinsic epistemic values are not alone in playing this role – practical values can speak for and against pursuing the epistemic aims as well. This also means that we can have more or less reason to pursue the epistemic aims with respect to different propositions, depending on the practical costs and benefits at play – some propositions are more useful, interesting, informationally rich, etc., than others. For example, I have more reason to pursue the epistemic aims with respect to where I live, than with respect to where some random passerby lives. And I have more reason to pursue the epistemic aim with respect to the proposition that *I live in Europe*, than with respect to the proposition that *I live in Europe or somewhere else*.¹⁹

Third, how can doxastic attitudes help bring about the epistemic aims, in a way that would allow reasons for the epistemic aims to be transmitted to the attitudes? Like Schroeder, I will assume there are three doxastic attitudes that one can take towards a proposition: belief that *p*, disbelief that *p*, and withholding belief with respect to *p*.²⁰ One way of means to help bring about

¹⁷ Cf. Papineau (2013) who makes a similar point about the diversity of reasons for being interested in true beliefs.

¹⁸ This is a standard assumption of epistemic consequentialism of the kind developed by e.g., Goldman (1999). This assumption does not exclude that some true beliefs are epistemically more valuable than other true beliefs, for example if they are more informative, or aid inquiry to a greater extent. See e.g. Levi (1967) and Steglich-Petersen (forthcoming).

¹⁹ I defend this assumption in Steglich-Petersen (2009; 2011; 2018).

²⁰ I will understand withholding judgment as a kind of doxastic attitude towards *p*, which means that, in addition to the three doxastic attitudes, one can also be in the state of having *no* doxastic attitude towards *p*. This is not, however,

aims is by causing them, or playing a causal role in their realization. But it is hard to see, except in a contrived sense, how doxastic attitudes with respect to p could cause the realization of a true belief or the avoidance of a false belief with respect to p .²¹ Rather, these attitudes can bring about the epistemic aims by *constituting* them. When p is true, believing p constitutes the achievement of the aims of believing what is true and avoiding believing what is false with respect to p . Likewise for disbelieving p when p is false. And when p is false, withholding with respect to p constitutes the achievement of the aim of avoiding believing what is false with respect to p . This allows us to explain why evidence in favor p speaks in favor of believing p , and why the weight of epistemic reasons is partly a function of the strength of the evidence. This is due to the fact that evidence for p affects the probability of believing p achieving the aim of believing what is true and avoiding believing what is false with respect to p , and similarly for the other doxastic attitudes.²² Evidence thus turns out to play the same role in speaking in favor of doxastic attitudes, as it does in speaking in favor of any other instrumental act. It should be added that the reasons in favor of pursuing the epistemic aims can be transmitted to other states or acts, apart from the doxastic attitudes. In particular, they can be transmitted to acts of inquiry. For example, if I have reason to pursue a true belief as to whether the game starts at 3pm, this reason will transmit to various acts of inquiry, such as looking up the game plan, asking knowledgeable people, and so on. This means that epistemic reasons and reasons for acts of inquiry are both instrumental reasons transmitted from the same epistemic aims. As argued elsewhere (Steglich-Petersen, forthcoming), this is a considerable theoretical advantage of the instrumentalist account, since it thereby avoids the troubling tension between epistemic reasons, and reasons for acts of inquiry, recently pointed out by Jane Friedman (2020).

Fourth, how do the reasons transmitted from the epistemic aims determine which doxastic attitude is epistemically rational? Like Schroeder, I will assume that the epistemically rational attitude to take towards a proposition is the attitude that, among the three possible doxastic attitudes, is most supported by epistemic reasons, where this includes reasons transmitted from both epistemic aims. So, when determining which doxastic attitude is the epistemically rational attitude to take towards a proposition, we must determine the weight of the reasons supporting

a state that can be supported by epistemic reasons, and therefore not a state that can be epistemically rational or irrational.

²¹ That is not to say that doxastic attitudes with respect to p could not play a non-trivial causal role in the realization of doxastic attitudes towards *other* propositions.

²² Some might think that by relying on antecedent understandings of evidence and evidential probability, this version of epistemic instrumentalism ends up as a circular explanation of epistemic normativity. But this misunderstands the explanatory ambitions of this and most other recent versions of instrumentalism. The ambition isn't to explain all epistemic notions in non-epistemic terms, but rather to explain the fact that evidence in support of p , or a high evidential probability of p , should give rise to a reason to believe p . For a particularly clear statement of this explanatory ambition, see Cowie (2014).

pursuit of each of the epistemic aims, and determine for each of the three doxastic options, how likely they are to constitute the realization of those aims. The transmission principle allows us to derive the following general characteristics of the order of strength with which reasons transmitted from the two epistemic aims support doxastic attitudes:

Reasons transmitted from the aim of believing what is true with respect to p always support the following doxastic attitudes in the following order of strength:²³

1. The belief most likely to be true
2. The belief least likely to be true

Reasons transmitted from the aim of avoiding believing what is false with respect to p always support the following doxastic attitudes in the following order of strength:

1. Withholding (since withholding is guaranteed to avoid believing what is false)
2. The belief most likely to be true (since this makes it least likely to be false)
3. The belief least likely to be true (since this makes it most likely to be false)

Given these rankings, we can also note that on the present picture of epistemic reasons, it is not possible to have more epistemic reason to believe that p than to believe not- p (or vice versa) when p is no more probable than not- p , i.e., when the evidential probability of p is $\leq 50\%$. The evidence alone thus suffices for determining whether believing p is more rational than believing not- p , and vice versa. The evidence alone does not suffice, however, to determine whether it is more rational to believe than to withhold belief. To determine this, we also need to know the relative strengths of the reasons for pursuing the aims of believing what is true, and avoiding believing what is false. This will be a key point in what follows.

As obvious as these rankings may seem, let me address a potential worry. The benefits of believing p truly will often differ from the benefits of believing not- p truly.²⁴ For example, if I need to catch the last train, it would be much more beneficial for me to believe truly that the last train

²³ It is tempting to think that *no* reason whatsoever can be transmitted to withholding with respect to p from the aim of believing what is true with respect to p . But that, I think, would be a mistake. Of course, withholding cannot help bring about the aim of believing the truth by constituting the realization of that aim. But it might help bring about the aim in other ways. For example, withholding might cause (or at least remove a preventer from) one to seek out further evidence, or to think more about the matter, which might in turn increase the chances of eventually coming to believe the truth. Indeed, Friedman (2017) argues that withholding belief on p is necessary and sufficient for one to engage in inquiry as to whether p . The place of withholding in the first of the above rankings is thus bound to vary with the circumstances. However, in what follows, I will idealize away from this complication.

²⁴ Cf. Schroeder (2012a: 279) who makes this point in terms of possible differences between the cost of type-1 error in believing a proposition, and the cost of type-1 error in believing its negation.

departs at 10:00 pm, than to believe truly that the last train does not depart at 10:00 pm.²⁵ Likewise, the costs of believing p falsely will often differ from the costs of believing not- p falsely. This raises a question about how these costs and benefits support pursuing the epistemic aims of believing what is true and avoiding believing what is false with respect to a proposition. In particular, it might suggest that when it is more beneficial to have a true belief that p than a true belief that not- p , the former belief will be supported by a stronger transmitted reason than the latter belief, given the same level of evidential support. If that were the case, the above rankings would not always hold. For example, I could have more transmitted reason to believe that the last train departs at 10:00 pm, than to believe that the last train does not depart at 10:00 pm, even if the probability of the former belief being true is $<50\%$. In fact, on this line of reasoning, we can imagine cases where there would be stronger transmitted reason to believe p than to believe not- p , even if the probability of p is arbitrarily low. For example, the benefit of believing truly that the winning number in the Powerball Lottery is 98.74.52.38.65.73 is enormous, whereas the benefit of believing truly that that is not the winning number is miniscule. These are clearly implications that we should be careful to avoid.

The way to avoid them is by noting that the epistemic aim of believing what is true with respect to p should not be factored into the separate sub-aims of believing p if p is true and believing not- p if not- p is true, such that epistemic reasons for belief that p and belief that not- p are transmitted separately from these respective aims. Likewise, for the epistemic aim of avoiding believing what is false. But where does that leave the idea that reasons for pursuing the epistemic aims are practical in nature? What practical reasons could there be for pursuing the aim of believing what is true with respect to p , if such reasons are always to transmit to believing that p and believing that not- p in equal measure, assuming the same level of evidential support? One option would be to hold that only benefits that are associated to an equal degree with a true belief that p and a true belief that not- p can count in favor of pursuing the aim of believing the truth with respect to p . But do any such benefits exist? It seems that all benefits associated with true beliefs as to whether p are going to be benefits associated with one or the other belief, but not with both. Another and more attractive option would be to hold that benefits that are associated with either a true belief that p or a true belief that not- p , but not with both, can nevertheless constitute reasons for pursuing the aim of believing the truth as to whether p , from which reasons are transmitted in equal measure to both beliefs, given the same level of evidential support. It seems to me that this must be possible.

²⁵ This point also applies to the benefit or value of true beliefs in a wider sense, that goes beyond the usefulness of true beliefs to further one's ends. For example, it is a lot more intrinsically interesting to believe truly that some exotic physical theory is correct, than to believe truly that it is incorrect.

Here is a quick argument for that possibility: It seems obvious that it is possible to have reason to pursue a true belief as to whether p , where this aim would be satisfied to an equal degree by a true belief that p and a true belief that not- p . It also seems obvious that we have more reason to pursue that aim with respect to some propositions than with respect to others. For example, I have more reason to pursue a true belief as to whether my diet is healthy, than as to whether my neighbor owns more blue socks than brown. Such differences in strength of reasons often seem best explained by differences in the practical benefits of believing the truth with respect to the relevant propositions. A true belief about the healthiness of my diet is much more beneficial for me than a true belief about the color of my neighbor's socks. But any benefit associated with a true belief as to whether p will either be a benefit of a true belief that p , or a benefit of a true belief that not- p , and there is no reason to suppose that these benefits will in general be the same or of equal magnitude. So, given that differences in the practical benefits of believing the truth with respect to different propositions can explain the difference in the strength of my reasons for pursuing true beliefs with respect to these propositions, it must be possible for benefits that are unevenly distributed over true belief that p and true belief that not- p to influence how much reason we have to pursue believing the truth with respect to p .

A consequence of this is that benefits of believing p truly can give rise to reasons for believing p in two different manners. On the one hand, it can constitute reasons for simply pursuing a *true belief that p* , which transmit to believing p whenever and to the degree that there is a positive probability of believing p constituting a true belief. Such reasons never transmit to believing not- p , since the probability of believing not- p constituting a true belief that p is always zero. On the other hand, the benefits of believing p truly can give rise to reasons for pursuing a *true belief as to whether p* , and such reasons transmit both to believing p and to believing not- p , each to the degree determined by the probability of either belief constituting a true belief. Only transmitted reasons of the latter kind are epistemic reasons. The contrast between these kinds of reasons will become important later on.

5. Explaining Pragmatic Encroachment

It should by now be relatively obvious how the above instrumentalist conception of epistemic reasons and rationality can explain the possibility of pragmatic encroachment. The puzzle raised by pragmatic encroachment was that of explaining how *practical* considerations could enter into determining when it is *epistemically* rational to believe a proposition. But on the instrumentalist account, practical considerations are always part of what determines the weight of epistemic reasons, since the weight of epistemic reasons is partly determined by the weight of the reasons

supporting pursuit of the epistemic aims from which epistemic reasons are transmitted; and the reasons supporting pursuit of the epistemic aims are clearly practical. So, the proposed instrumentalist account is, in essence, an account that lets practical considerations encroach on what it is epistemically rational to believe.

It should also be clear how the instrumentalist account can explain the sort of cases that have motivated the idea of pragmatic encroachment. The key, here, is the possibility of variation in the relative weights of the reasons supporting pursuit of a true belief about a proposition, and the reasons that support seeking to avoid a false belief about that proposition. Begin by considering Low Stakes. Hannah's evidence makes it quite likely, but not certain, that the bank will be open on Saturday. She has reason to pursue a true belief on the matter, although not a particularly strong one. Believing truly that the bank will be open will mean that she'll avoid the lines on Friday, and still get to deposit the check on Saturday. And believing truly that the bank will not be open will save her a pointless trip to the bank on Saturday. She also has reason to pursue avoiding a false belief, but again, not a very strong one. Believing falsely that the bank will be open on Saturday, will cause the annoyance of a wasted trip. Believing falsely that the bank will be closed will cause her to unnecessarily stand in line on Friday. Either way, no big deal. Given this, which of the three doxastic options is the epistemically rational option for Hannah? Starting with the least supported option – believing that the bank will be closed – this is supported by a reason transmitted from the aim of forming a true belief, but given that it is unlikely that the belief will fulfill that aim, this transmitted reason is rather weak. It is also supported by a reason to avoid a false belief, but again, given that it is unlikely to achieve this aim, the transmitted reason is weak. On the other hand, believing that the bank will be open is quite likely to achieve both the aim of gaining a true belief, and the aim of avoiding a false one. Taken together, the reasons transmitted from these aims are thus relatively strong. What about withholding? This option is guaranteed to fulfil the aim of avoiding a false belief, so the reason to pursue this aim is transmitted in an unmitigated way. As far as this aim is concerned, withholding is thus supported by a stronger reason, than the reason supporting believing that the bank will be open. But withholding fares badly with respect to the aim of forming a true belief. It is guaranteed not to constitute the achievement of that aim. Hence, the only reason supporting withholding is the reason transmitted from the aim of avoiding a false belief. So, all in all, which doxastic option wins the day in Low Stakes? Obviously, this will depend on the exact weights of the reasons supporting pursuit of the aims of believing truly and avoiding believing falsely. But as I have described the case, there is no drastic difference in weight – neither the prospect of avoiding the lines, nor the risk of wasting a trip to the bank are very weighty considerations. So, given that believing the bank to be open stands at a good chance of achieving

both aims, and given that withholding only stands to achieve the one, it seems fair to conclude that there is most epistemic reason to believe that the bank will be open. That is to say, believing that the bank will be open enjoys the most support from reasons transmitted from the aims of coming to a true belief and avoiding a false belief on the matter. This, of course, is an intuitive verdict – but it is the sort of intuitive verdict we are very familiar with making when we weigh our practical instrumental reasons for different options against each other.

Moving on to High Stakes, recall that this case was set up to be evidentially identical to Low Stakes. In other words, it is equally probable for Hannah in the two cases that the bank will be open on Saturday. The difference between the cases consists in how badly things will go if Hannah believes falsely that the bank will be open. On the instrumentalist account, this will have the effect of increasing the weight of the reasons in favor of seeking to avoid a false belief, without similarly increasing the weight of the reasons in favor of seeking a true belief. And since the reasons in favor of avoiding a false belief are transmitted in an unmitigated way to withholding (since withholding is guaranteed to achieve the aim), but only transmitted in a mitigated way to the belief that the bank will be open (since this belief is not guaranteed to achieve the aim), it is possible for this difference to alter the balance of reasons so as to make withholding rather than belief the epistemically rational doxastic option in High Stakes. Of course, again, the exact weight of these reasons will depend on the details of the case; but these details are not important for our purposes. What is important is the *possibility* of the respective weights differing across the two cases. The instrumentalist account can thus explain how the difference in how bad it would be to believe falsely can make a difference to whether or not Hannah is epistemically rational in believing that the bank will be open.

It will be instructive to compare the account proposed here with Schroeder's. In particular, we need to see if it faces the same difficulties. Recall, Schroeder's account was threatened by two issues: it required us to weigh evidential and non-evidential reasons against each other; and it seemed committed to letting practical considerations of the sort involved in Pascal's Wager affect what it is epistemically rational to believe. I discuss whether the same is the case for the proposed account in the following two subsections.

5.1 Weighing of Evidential and Non-Evidential Reasons?

We can immediately see that, strictly speaking, the above account does not require weighing of evidential and non-evidential reasons. This is because it does not, like Schroeder's account, let the practical costs of false belief in itself constitute a reason in favor of withholding, while letting evidence in itself constitute a reason in favor of belief. Rather, on the present account, epistemic

reasons for all doxastic options are reasons of the same kind. They are all instrumental reasons transmitted from the epistemic aims. Weighing them against each other is thus no different from weighing different practical instrumental reasons against each other. That is not to say that such weighing is always straightforward. Weighing different instrumental reasons against each other can be difficult. But it does not seem impossible, in the way that weighing evidential and non-evidential reasons seems to be.²⁶

Nevertheless, some might think that the proposed account faces a very similar problem. Although it does not require us to weigh evidential and non-evidential reasons, it must still somehow bring together practical and evidential considerations when determining the weight of the reasons transmitted from the epistemic aims. Recall, the weight of any transmitted instrumental reason is determined in part by the weight of the reason for pursuing the relevant aim, and in part by the probability of the relevant means helping bring about the aim. Why should bringing together such factors in determining the weight of a reason be any less problematic than weighing evidential and non-evidential reasons against each other?

In response, note first that if this were a problem for the proposed account, it would be a problem for any transmission principle for instrumental reasons that lets the probability of a means helping to bring about an aim matter to the strength of the transmitted reason. So, the proposed account would be in good company. More importantly, the feature that makes it difficult to see how evidential and non-evidential reasons can be weighed against each other, is simply not present under the proposed account. The problem arises when we, like Schroeder, understand evidential considerations to have independent normative weight that can enter into comparisons with non-evidential reasons. As mentioned above, one reason why this is problematic, is that the weights of evidential and non-evidential reasons are measured on different kinds of scales, namely a probabilistic scale and a scale measuring the severity of costs, respectively. By contrast, the probability component of the transmission principle does not affect the weight of the transmitted reason by virtue of possessing some independent normative weight that somehow gets combined with the weight of the reason for pursuing the aim. Rather, the probability component affects the weight of the transmitted reason by modifying how much of the weight of the reason for pursuing the aim that gets transmitted to the means. An important consequence of this is that the weight of a transmitted reason cannot exceed the weight of the reason for pursuing the aim. So, in general, the weight of a transmitted instrumental reason is always somewhere between zero, and the weight of the reason for pursuing the aim, which makes very good sense. For example, the weight of my

²⁶ For a detailed discussion of the related question of how to weigh practical and epistemic reasons, see Steglich-Petersen & Skipper (2020b).

transmitted reason to take some means to alleviate my toothache cannot exceed the weight of my reason to pursue alleviating my toothache. Likewise, when it comes to reasons transmitted from the epistemic aims to doxastic options. The evidential probability of p determines how much of the weight of the reason to pursue the epistemic aims with respect to p that gets transmitted to the doxastic options. But it doesn't do so by possessing some independent normative weight. Hence, there is no issue here about combining or comparing the weights of different kinds of normative considerations with each other.²⁷

5.2 Pragmatic Encroachment Without Pragmatism?

As we have seen, the instrumentalist account has an easy time accommodating pragmatic encroachment. If epistemic reasons depend on practical reasons in favor of the aims from which they are transmitted, it is no wonder that practical considerations can play a role in determining the weight of our epistemic reasons, and thus in determining what it is epistemically rational to believe. The challenge for the instrumentalist account is not that of making room for practical considerations in epistemic rationality. The challenge, rather, is to avoid commitment to letting practical reasons of the sort involved in Pascal's wager to have undue influence on what it is epistemically rational to believe (even if they do influence what it is practically rational to believe).

To address this challenge, we can begin by considering what the difference between epistemic and practical reasons for belief amounts to on the instrumentalist account. Epistemic reasons are reasons for belief transmitted from the epistemic aims, in the way specified above. Practical reasons, then, are reasons for belief that are not transmitted from the epistemic aims. These reasons can be reasons transmitted from other aims. For example, reasons for pursuing the aim of peace of mind can be transmitted to beliefs that give peace of mind. Or reasons for pursuing the aim of preserving your friendship with somebody can be transmitted to believing in your friend's innocence. And, as was argued above, reasons for pursuing a true belief *that* p (as opposed to a true belief *as to whether* p), can be transmitted as a practical reason to believe that p . There might also be non-transmitted practical reasons for belief. Practical reasons for belief, that is, that do not depend on the belief promoting something else that there is reason to promote. For example, some might find it plausible that it is valuable in itself to believe in human dignity.

Given this understanding of the difference between epistemic and practical reasons for belief, consider the example of the eccentric billionaire who offers you \$1M if you believe that the

²⁷ An anonymous reviewer suggested that Schroeder could make a similar move, and amend his theory to claim that evidential reasons for beliefs consist not only of evidence, but also of some non-evidential consideration, with the effect that evidential reasons should be measured on the same scale as non-evidential reasons. While I would of course agree with such an amendment, it would be a substantial departure from Schroeder's account.

2020 US election was rigged, despite your strong evidence to the contrary. Let us put aside the question of whether this is something you are actually able to believe, and focus on what your reasons would support if you were. The promise of \$1M is clearly a strong practical reason to believe, in the sense outlined above. You have a reason to pursue the aim of wealth (let us assume), and if believing that the election was rigged is an effective means to that, you will thereby have transmitted practical reason for adopting the belief. Does the promise of \$1M also affect your *epistemic* reasons to believe, on the instrumentalist account? Well, epistemic reasons for believing p are reasons that are transmitted from the aims of believing what is true and avoiding believing what is false with respect to p . So, we must ask if the promise of \$1M gives you reason to pursue those aims – reasons that could then be transmitted as epistemic reasons to the belief. The answer is that it does not. The promise of \$1M gives you reason to pursue believing that the election was rigged *regardless* of this being true or false; it doesn't give you reason to pursue a true belief or to avoid a false belief as to whether it was rigged. It might be objected that pursuing a true belief on the matter could have the fortunate side-effect of landing the reward – a true belief on the matter might just get you the \$1M, since it may turn out to be true that the election *was* in fact rigged. But again, that doesn't specifically speak in favor of pursuing a *true* belief, since its truth is not what matters to whether you get the reward. So, in this case, the instrumentalist account does not seem committed to letting the prospect of money influence one's epistemic reason for belief.

Let us consider next what the instrumentalist account is committed to in cases such as Pascal's Wager. This case is trickier, since the reward of a heavenly afterlife granted to believers, and the punishment of going to hell awaiting non-believers, do depend on it being true that God exists. This sets the case apart from the one considered above, where the reward would be given to the believer regardless of the belief being true or false.

It should be immediately clear that the wager gives practical reason to believe in God, according to the instrumentalist account. There is reason to pursue the aim of a heavenly afterlife, and to avoid going to hell. And since there is at least a small chance of achieving this by believing in God, that is a practical reason to believe in God. We can understand this transmitted reason as a reason for pursuing a true belief *that* p (as opposed to a true belief *as to whether* p). Believing truly that God exists would be very beneficial, and so gives strong reason to pursue such a belief, in a sense that does not transmit to believing that God does not exist. This can thus make it rational, in a non-epistemic sense, to believe that God exists, even if the probability of this is very low.

But do the potential costs and benefits involved in the wager also give rise to epistemic reasons, according to the instrumentalist account? To determine this, we must again ask if these potential costs and benefits speak in favor of pursuing the epistemic aims of believing what is true

and avoiding believing what is false with respect to whether God exists, since only thereby can they give rise to epistemic reasons. On the face of it, it seems as if they do. If God does exist, you go to heaven by believing the truth. Less is gained, of course, from believing truly that God does not exist, although you will then have a true belief about a question that is deeply interesting, and that may affect you in numerous ways. But, as argued in §4, even benefits that are unevenly distributed over true belief that p and true belief that not- p can influence how much reason we have to pursue believing the truth as to whether p . So, the benefits at play do seem to speak in favor of pursuing a true belief. There is also reason to pursue avoiding a false belief as to whether God exists. If God exists and you believe that he doesn't, you go to hell. If God doesn't exist and you believe that he does, the cost is not as great, but you will have a false belief about a question it is worth to be right about. Taken together, the costs at play certainly speak in favor of trying to avoid a false belief. So, the potential costs and benefits involved in the wager do seem to give reason to pursue the epistemic aims with respect to whether God exists, in which case they will transmit as epistemic reasons to the three doxastic options with respect to God's existence.

However, this should not in itself be worrisome. Recall from §4 that reasons transmitted from the aims of believing what is true and avoiding believing what is false with respect to p always support the belief most likely to be true to a greater extent than the belief least likely to be true; and reasons transmitted from the aim of avoiding believing what is false with respect to p always support withholding to a greater extent than they support any other doxastic option. So, insofar as the costs and benefits involved in the wager give rise to epistemic reasons, and insofar as there are weighty reasons to pursue both epistemic aims, these reasons do not on balance support belief in God on especially slim evidence.

What if we modify the Wager to give strong reason to pursue a true belief as to whether God exists, but only a weak reason to avoid a false belief on the matter? For example, we might say that, instead of going to hell, nothing terrible will befall you for believing falsely that God does not exist, apart from missing out on going to heaven. This, in effect, would be the reverse situation compared to High Stakes. Recall, in High Stakes, there was a strong reason to avoid a false belief as to whether the bank will be open on Saturday, and a less strong reason to pursue a true belief. Insofar as the instrumentalist account is committed to letting the asymmetry of the costs and benefits in High Stakes influence one's epistemic reasons, the instrumentalist account also seems committed to letting the asymmetry of the costs and benefits at work in the modified Wager influence your epistemic reasons. In particular, the reasons transmitted from the aim of avoiding a false belief will be comparatively weaker, thus lowering the evidential threshold for rational belief in God's existence. Is that an unacceptable result? That depends on whether or not pragmatic

encroachment is a genuine phenomenon. If there is pragmatic encroachment in High Stakes, it is hard to see how there could not be pragmatic encroachment in a reversed version of High Stakes. But in that case, there will also be pragmatic encroachment in the modified version of Pascal's Wager, since this case is structurally identical to a reverse version of High Stakes.²⁸ I mentioned at the outset, that my aim in this paper wasn't to contribute to the debate over whether there is pragmatic encroachment on rational belief, but to propose an explanation on the assumption that there is. Given that assumption, it can thus only be a virtue of the instrumentalist explanation, if it implies that the wager gives rise to pragmatic encroachment.

6. Conclusion

I have argued that a transmission-based version of epistemic instrumentalism provides a natural explanation of pragmatic encroachment, and does so without giving practical reasons undue influence on what it is epistemically rational to believe. The key idea is that epistemic reasons are transmitted from the epistemic aims of believing what is true and avoiding believing what is false with respect to the relevant proposition, and that reasons for these respective aims can vary in weight, which in turn allows variation in the evidential threshold for epistemically rational belief. I mentioned at the outset that the possibility of pragmatic encroachment is itself contested. For those who reject pragmatic encroachment, the above might be taken as a reason to reject epistemic instrumentalism on the grounds of it entailing pragmatic encroachment. On the other hand, for those who find the possibility of pragmatic encroachment plausible, the above explanation should constitute a reason to accept epistemic instrumentalism.²⁹

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²⁸ Cf. Benton (2018), who argues that, on the assumption pragmatic encroachment on knowledge, Pascal's Wager makes atheism epistemically irrational.

²⁹ I wish to thank my colleagues and students in the Aarhus University research colloquium in analytic philosophy for discussing these ideas with me, and a number of anonymous reviewers for their detailed and helpful comments. Research for this paper was generously supported by the Carlsberg Foundation.

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