

Instrumental reasons for belief: elliptical talk and elusive properties

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Abstract. Epistemic instrumentalists think that *epistemic* normativity is just a special kind of *instrumental* normativity. According to them, you have epistemic reason to believe a proposition insofar as doing so is conducive to certain epistemic *goals* or *aims*—say, to believe what is true and avoid believing what is false. Perhaps the most prominent challenge for instrumentalists in recent years has been to explain, or explain away, why one’s epistemic reasons often do not seem to depend on one’s aims. This challenge can arguably be met. But a different challenge looms: instrumental reasons in the *practical* domain have various properties that *epistemic* reasons do not seem to share. In this chapter, we offer a way for epistemic instrumentalists to overcome this challenge. Our main thesis takes the form of a conditional: if we accept an independently plausible *transmission principle* of instrumental normativity, we can maintain that epistemic reasons in fact *do* share the relevant properties of practical instrumental reasons. In addition, we can explain why epistemic reasons *seem* to lack these properties in the first place: some properties of epistemic reasons are *elusive*, or easy to overlook, because we tend to think and talk about epistemic reasons in an ‘elliptical’ manner.

1. Introduction

There are beliefs you should have; and ones you shouldn’t. What makes it so? Epistemic instrumentalists give something like the following answer: you have epistemic reason to believe a proposition insofar as doing so is conducive to certain epistemic *goals* or *aims*—say, to believe what is true and avoid believing what is false. According to them, *epistemic* normativity is just a special kind of *instrumental* normativity. Among the main attractions of this view are that it unifies epistemic and practical normativity, and explains epistemic normativity in terms of a relatively well-understood kind of normativity.¹

¹ For defences of epistemic instrumentalism, see Quine (1967), Foley (1987), Laudan (1990), Kitcher (1992), Kornblith (1993), Nozick (1993, ch. 3), Papineau (1999), Cowie (2014), and Steglich-Petersen (2011; 2018).

Perhaps the most prominent challenge for epistemic instrumentalists in recent years has been to explain, or explain away, why beliefs seem normatively constrained by one's evidence, even when believing in accordance with the evidence does *not* seem to further any of one's aims. This challenge can arguably be met.² But a different challenge looms: instrumental reasons in the *practical* domain have various properties that *epistemic* reasons do not seem to share. We will say more about these properties as we proceed. But if epistemic reasons indeed do not share them, that speaks against understanding epistemic reasons as a species of instrumental reasons.

The goal of this chapter is to offer a way for epistemic instrumentalists to overcome this challenge. Our main thesis takes the form of a conditional: if we accept an independently plausible *transmission principle* of instrumental normativity, we can maintain that epistemic reasons in fact *do* share the relevant properties of practical instrumental reasons. In addition, we can explain why epistemic reasons *seem* to lack these properties in the first place: some properties of epistemic reasons are *elusive*, or easy to overlook, because we tend to think and talk about epistemic reasons in an 'elliptical' manner (in a sense to be explained).

We will go about defending these claims in three steps. First, we will provide some general background on epistemic instrumentalism and introduce the transmission principle that we will be working with (§2). In the second step, we will explain what we mean by our tendency to think and talk about epistemic reasons in an 'elliptical' manner (§3). The third step is where most of the action will take place: we describe four properties of practical instrumental reasons that epistemic reasons seem to lack; and we draw on lessons from the previous two steps to explain how epistemic instrumentalists can maintain that epistemic reasons in fact share those properties, despite initial appearances to the contrary (§4).

² How? One strategy is to deny that we have the epistemic reasons that we are alleged to have in cases where we lack the relevant epistemic aims (Papineau 2013). Another is to adopt a 'normatively loaded' version of epistemic instrumentalism, which refers to the aims you *should* have rather than the ones you *actually* have (Steglich-Petersen 2018).

2. Epistemic instrumentalism

Why does evidence for a proposition seem to provide normative reason to believe it? And why should we avoid believing what is not supported by our evidence? These are questions that any theory of epistemic normativity must answer. Epistemic instrumentalists propose to answer them by understanding *epistemic* reasons as a species of *instrumental* reasons. We often have reason to seek the truth about various matters, and since the best way to promote this aim is to believe in accordance with our evidence, we have good instrumental reason to do so.

Although all epistemic instrumentalists share this basic commitment, specific versions differ in detail as well as motivation. One of the main motivations for epistemic instrumentalism has traditionally been to reconcile a cognitivist view of epistemic normativity with a broadly naturalistic metaphysics. This ambition calls for a purely *descriptive* version of epistemic instrumentalism, which grounds instrumental reasons in the aims and desires that agents *actually* hold. On this sort of view, the question of whether an agent has instrumental reason to believe some proposition is settled on the basis of whether the agent in fact aims to form a true belief about the proposition (and, if so, how that aim is best pursued).³

While the metaphysical tidiness of this approach may seem attractive, it is beset with serious difficulties. Perhaps the most well-known problem is that we do not seem to have enough, or sufficiently general, epistemic aims or goals to ground all of the epistemic reasons that we intuitively seem to possess.⁴ For one thing, there are propositions that most people seem to care very little about ('Which percentage of the world population are currently singing in falsetto?'). And to make matters worse, there are even propositions that most people seem to prefer *not* to form true beliefs about ('How does the crime novel end?'). Yet, even in such cases, many philosophers find it intuitive that our beliefs should respect the available evidence. If so, the

³ For views of this sort, see, e.g., Quine (1967), Kitcher (1992), Kornblith (1993), and Papineau (1999; 2013).

⁴ For an influential development of this objection, see Kelly (2003). For a critical exchange, see Kelly (2007) and Leite (2007). For a helpful review and discussion of various responses, see Côté-Bouchard (2015).

limited scope of people's actual epistemic aims appears to make them unfit to explain the generality with which our beliefs are normatively constrained by the evidence.

One way to avoid this difficulty is to adopt a normatively loaded version of epistemic instrumentalism on which instrumental reasons are grounded, not in people's *actual* aims or desires, but in the aims or desires they *should* (or have *reason* to) have. This move is supposed to make the epistemic instrumentalist better equipped to explain why our epistemic reasons are not sensitive to our *actual* aims (or lack thereof), since we might fail to have the aims that we *should* have.⁵ The obvious cost of this proposal is that it is not easily adaptable by a naturalist metaphysics, since it relies on normative claims about what aims we *should* have, and not just psychological facts about what aims we *do* have. Epistemologists of a naturalistic bent will perhaps find this cost unacceptable. But it is important to note that there are plenty of attractions left to make the account theoretically desirable: it promises a unified theory of epistemic and practical normativity, and grounds epistemic norms in a relatively well-understood class of instrumental norms.

There are several different ways that one could develop this normatively loaded version of epistemic instrumentalism, and we will not be presupposing any version in particular. But it will be helpful to have a concrete view on the table, so we will briefly sketch an account that we have defended elsewhere.⁶ To motivate the account, we first need to get clear on the proper explanandum for a theory of epistemic normativity. We mentioned above that one of the central challenges for epistemic instrumentalists is to explain the generality with which our beliefs seem normatively constrained by evidence. But what, exactly, do these general constraints amount to?

A natural initial suggestion would be that evidence for *p* always provides one with a *pro tanto* reason to believe that *p*, and that *decisive* evidence for *p* always makes it the case that one *ought* to believe that *p*. However, we find it doubtful that the general normative demands generated by our evidence are as strong as that. As several authors have pointed out, even if we

⁵ For versions of this approach, see e.g. Grimm (2009), Cowie (2014), and Steglich-Petersen (2011; 2018).

⁶ Steglich-Petersen (2018); Steglich-Petersen & Skipper (forthcoming).

restrict our attention to propositions that are *entailed* by our evidence, we are left with a set of propositions that vastly outstrips what any human being could ever believe—endless arrays of disjunctions, tautologies, and so on. Thus, if ‘ought’ implies ‘can’, it cannot be the case that we ought to believe whatever we have decisive evidence for.⁷

Moreover, even if we abstract away from contingent facts about our cognitive limitations, it seems implausible that we ought to, or even have reason to, believe various trivial propositions that are of no interest to us. What reason is there for me to believe that “either the earth isn’t flat or the number of tables in Shanghai is odd”? Very little, it seems. And yet the proposition is well-supported by my evidence. This suggests that if evidence places any *general* normative constraints on our beliefs, it cannot be by *always* generating positive reasons to form beliefs that are supported by the evidence. The constraint must be weaker than that.

A more plausible suggestion, it seems to us, is that the strongest general evidential constraint on belief is a necessary condition on *permissible* belief: roughly, you are permitted to believe *p* only if *p* is supported by your evidence (to a sufficient degree).⁸ This norm says nothing about when you *should*, or have *reason to*, believe *p*. Rather, when you have positive reason to believe some proposition, this must be explained, at least in part, by non-evidential factors of a certain sort. If this is correct, a theory of epistemic normativity must be able to explain two separate normative phenomena. First, it must explain why it is never permissible to form evidentially unsupported beliefs. Second, it must explain why there is sometimes, but not always, positive reason to believe a proposition that is supported by the evidence.

On our preferred view, these normative phenomena are explained by two separate principles that feature prominently in the literature on instrumental normativity. The first

⁷ E.g. Daniel Whiting (2013) makes this point. See also Bykvist and Hattiangadi (2007).

⁸ For a defense of this norm, see Whiting (2013). Even this norm, however, may be too strong. If one can have practical reasons for belief (as we think one can), and such reasons can outweigh one’s epistemic reasons (as we think they can), there will be cases where believing an evidentially *unsupported* proposition is all-things-considered permissible. For discussion of this possibility, see Steglich-Petersen & Skipper (forthcoming). Still, in some weaker sense, there will be something wrong or defective about these unsupported beliefs, even if they are all-things-considered permissible. See Steglich-Petersen (2018, pp. 274-5) for discussion of this weaker sense of defectiveness. For our present purposes, however, we can ignore this subtlety.

principle is a *coherence* norm that governs which combinations of instrumental attitudes and actions it can be rational to take. Roughly speaking, if you have a certain aim, and believe some means to be necessary to achieve that aim, you are instrumentally irrational if you fail to either take the means or give up the aim. This norm says nothing about which particular means you *should* take, since you may or may not have reason to pursue the relevant aim in the first place. By contrast, the second norm is a *substantive* norm, namely a ‘transmission principle’ that governs when you have positive reason to take particular actions or attitudes.⁹ Roughly speaking, if you have reason to pursue a certain aim, and you should expect some means to be conducive to that aim, you thereby have a *pro tanto* reason to take the means.

Together, these two norms provide the resources to explain how our beliefs are normatively constrained by the evidence. As argued elsewhere, the general sense in which beliefs are permissible only if they are evidentially supported can be explained in terms of the coherence norm of instrumental rationality (when suitably adapted to the epistemic context).¹⁰ And the transmission principle can be used to explain why we sometimes, but not always, have positive epistemic reason to adopt beliefs that are supported by our evidence.

For reasons that will emerge, the ensuing discussion is mainly going to center around the transmission principle. It is therefore worth pausing to give a more refined formulation of the principle. Generally speaking, such a formulation should capture two ideas. First, it should capture the idea that one’s reasons to take some means depend on (are ‘transmitted’ from) one’s reasons to pursue the relevant aim. Second, it should capture the idea that the *strength* of one’s reasons to take the means depend partly on the *strength* of one’s reasons to pursue the aim, and

⁹ That is not to say that the status and content of these principles are uncontroversial. For an overview of the current discussion, see Kolodny and Brunero (2018).

¹⁰ See Steglich-Petersen (2018, §4.1). In short, if we suppose that every belief is associated with an aim to believe the truth (either in a personal sense, or in a subpersonal functional sense), and that believing in accordance with evidence is thought to be necessary to achieve this aim, it will be instrumentally incoherent not to intend to believe in accordance with the evidence. For defences of the required teleological account of belief, see Steglich-Petersen (2006; 2009).

partly on the *likelihood* that the means will be effective in achieving the aim. One way of capturing these (and other, more subtle) features has been proposed by Niko Kolodny (2018):¹¹

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

How might this principle be applied to understand the situations in which one has positive epistemic reason to believe some proposition? The idea is that evidence for p speaks in favor of believing p only when there is reason to pursue the aim of coming to a true belief as to whether p . With such a 'truth-aim' in place, the evidence helps to generate an epistemic reason to believe p by raising the likelihood that believing p will fulfill the aim of coming to a true belief as to whether p . If we make the relevant substitutions, we thus get the following instantiation of the general transmission principle:

Instrumental Transmission of Epistemic Reasons for Belief: If there is reason for one to pursue the aim of coming to a true belief as to whether p , and there is positive probability conditional on one's adopting a belief that p , that this helps bring about the aim non-superfluously, then that is a reason for one to adopt a belief that p , whose strength depends on the reason for one to pursue the aim and the probability.

To sketch a toy example, suppose that you have good reason to pursue the aim of believing the truth as to whether the toy rubber duck you are considering as a birthday present for your niece contains harmful chemicals. This reason will transmit to various means. One such means might be to seek out further evidence on the matter. But the reason will also transmit to another means that, if true, will *constitute* the fulfillment of the aim, namely that of *believing* that the rubber duck contains harmful chemicals. The *strength* of the epistemic reason you have to adopt this

¹¹ The terminology has been adjusted for our purposes.

belief depends on two factors. First, it depends on the strength of the reason you have to pursue a true belief on the matter (which in this case is presumably fairly strong). Second, it will depend on how likely it is in light of your evidence that believing that the rubber duck contains harmful chemicals will bring about, or rather constitute, a true belief on the matter. The stronger the evidence, the stronger the transmitted reason, other things being equal.

So far, we have focused our attention on the epistemic goal of forming a true belief as to whether *p*. But there is also another epistemic goal that deserves equal attention: the aim of *not* forming a *false* belief as to whether *p*. Famously, William James pointed out that these aims do not go hand in hand: someone can achieve one aim without achieving the other.¹² However, for the most part, it will do us no harm to talk about a single ‘truth-aim’, which we will take to stand in for the dual aim of believing what is true and not believing what is false. Whenever it becomes important to keep these aims separate, we will do so explicitly (esp. §4.2).

Before we proceed, let us note that the version of epistemic instrumentalism outlined here is compatible with a number of different views about when and why we have reason to adopt the truth-aim relative to some proposition. Some philosophers hold that there is always some *intrinsic* value in having true beliefs, no matter the content of those beliefs.¹³ If so, the present view implies that there is always at least a weak transmitted reason to believe any evidentially supported proposition. On another view, which we are inclined to favor, one has reason to adopt the truth-aim only when doing so is likely to promote the *practical* values or aims that one has reason to promote or pursue. These need not be restricted to prudential aims or values, but might concern moral, intellectual, or aesthetic matters as well. For example, even if it is not in my own narrow prudential interest to seek true beliefs about chemicals in toys, there might be moral reasons to do so. And even if no prudential advantage would be gained by learning the true nature of black holes, it might still be of purely intellectual value.

¹² James (1897). For more recent discussions of these ‘Jamesian goals’ and their interaction, see Kelly (2013) and Horowitz (2018).

¹³ See e.g. Lynch (2004).

3. Elliptical talk about epistemic reasons

An initial question for the epistemic instrumentalist is what we should make of the common practice of referring to evidence *simpliciter* as ‘reasons’ for belief. On our view, it is strictly speaking false to say that evidence *by itself* constitutes a normative reason for belief. Why, then, do we often talk in ways that suggest otherwise? To our mind, the practice of referring to evidence *simpliciter* as ‘reasons for belief’ is best understood as a way of talking about epistemic reasons in an ‘elliptical’ manner. The idea is that, in most ordinary contexts, we have good pragmatic reason to take the truth-aim for granted, and simply focus our attention on whether the available evidence makes it likely that believing p will result in a true belief as to whether p . This makes it *appear* as if the question of whether there is epistemic reason to believe p is settled by the question of whether the evidence supports p alone.¹⁴

The same phenomenon is also familiar from practical contexts where the aim in question ‘goes without saying’. Consider, for example, the reasons we have to avoid doing things that will get us killed.¹⁵ Strictly speaking, these reasons only arise for people who have (or should have) the aim of not getting killed. But most people share this aim, it would, at least in most ordinary contexts, belabour the obvious to make explicit mention of this aim. That is why it typically seems perfectly natural to refer to, say, the risks of falling to one’s death during free solo climbing as a reason not to try it, without mentioning the underlying aim of staying alive. Such talk is elliptical in the sense that it omits reference to the underlying aim, which must instead be inferred from the context, and instead focuses on whether the available means are likely to be effective in achieving the contextually given aim.

¹⁴ While this elliptical understanding of our common talk about epistemic reasons helps solve a number of problems for the instrumentalist account, it leaves other problems open that we shall not discuss in this paper. One such problem concerns what kinds of considerations we are psychologically able to base our beliefs on. For example, while some have argued that we are only able to base our beliefs on *evidential* considerations (Shah 2006), others have argued that we are perfectly capable of basing our beliefs on *practical* considerations (Rinard forthcoming). For further discussion, see Steglich-Petersen (2008) and Reisner (2009).

¹⁵ Kelly (2003) discusses a similar case.

The same goes for our talk about epistemic reasons. With respect to the vast majority of propositions that we ordinarily think and talk about, it seems plausible that we have at least *some* reason to pursue the aim of forming true beliefs (and not forming false beliefs) about those propositions. Thus, it is typically safe to take this truth-aim for granted, and focus solely on whether the evidence at hand makes it likely that believing the relevant proposition will achieve the aim of believing that proposition *truly*. Of course, it may become relevant to draw attention to the underlying truth-aim in cases where the aim is called into question. For example, if someone starts rehearsing an endless number of trivialities that follow from your evidence, you would be right to object that you simply do not care about those propositions. This reaction, we take it, is just a way for you to convey that you have no reason to form beliefs about those trivialities, even if they are well supported by your evidence.¹⁶ It is like rejecting the relevance of a piece of advice about how to achieve some aim on the grounds that you have no reason to pursue the aim in the first place. Yet, in most ordinary contexts, it will be entirely felicitous to take the truth-aim for granted, and speak of evidence *simpliciter* as a reason for belief. This fact will become important in what follows.

4. Epistemic reasons vs. practical instrumental reasons

We will now take up the challenge against epistemic instrumentalism that we set out to address in this chapter. The challenge arises when we try to single out various properties of practical instrumental reasons, and ask whether epistemic reasons share those properties. In what follows, we will look at four properties in particular. Two of those properties pertain to *contributing* or *pro tanto* reasons (§§4-1-4-2), while the other two pertain to how those contributing reasons

¹⁶ Cases like this raise a number of subtle issues that we will have to save for another occasion. For example, wouldn't there be something awry with you, if your friend's rehearsal of trivialities *didn't* make you believe them? And if so, wouldn't this show that the evidence with which your friend thereby provides you *does* give you a reason to form the relevant beliefs? We think not. As human beings, we are naturally disposed to automatically form beliefs in response to our evidence. On the whole, this disposition works well in our favor, since we often have reason to want true beliefs. When the disposition fails to deliver this, it is thus regrettable insofar as it indicates that a disposition that is, on the whole, desirable is not entirely infallible. But this does little to show that, whenever we form beliefs in this automatic manner, those beliefs are formed in response to reasons.

combine into *overall* or *all-things-considered* reasons (§§4.3-4.4). In each case, we will argue that epistemic instrumentalists can explain away the seeming contrast between epistemic reasons and practical instrumental reasons by paying close attention to the mechanics of the transmission principle. And we will argue that they can do so in a way that makes it clear why the contrast *seems* to arise in the first place.

There are no doubt other properties aside from the ones discussed below that might be thought to drive a wedge between epistemic and instrumental normativity. But even so, we hope that the considerations put forth will at least go some way to discharge the worry that epistemic reasons and practical instrumental reasons behave too differently to be of a kind.

4.1 *Bounded vs. unbounded scales*

The first apparent contrast between epistemic reasons and practical instrumental reasons we want to discuss concerns the *scales* on which the weights of these reasons are to be measured. More specifically, the question of our concern is whether these scales are *bounded* or *unbounded*.

Let's begin with the practical domain. It is natural to think that no matter how strong practical reason you have to perform some action, you can always, at least in principle, get additional reason to perform that action. For example, even if the prospect of winning \$1,000,000 gives you an extremely strong reason to φ , the prospect of winning \$1,000,001 might give you an *even stronger* reason to φ . This seems to suggest that we should measure the weights of practical instrumental reasons on an *unbounded* scale: there is no upper limit beyond which no further strengthening of practical reasons can be gained.¹⁷

Things look different in the epistemic domain. As Reisner (ms) has pointed out, we are used to think that if you have *conclusive* or *decisive* evidence for p —i.e., evidence that makes it *certain* that p is true—no further evidence could give you additional reason to believe p . For example, if your current evidence includes the facts that “it’s raining” and “if it’s raining, the streets are wet,” any further evidence you might get about the wetness of the streets would seem

¹⁷ This assumption is familiar from versions of expected utility theory that use (unbounded) real-valued functions to represent the utility of different outcomes at different states.

inert. After all, your current evidence already *entails* that the streets are wet; evidence doesn't get any stronger than that! This seems to suggest that we should measure the weights of epistemic reasons on a *bounded* scale: there *is* an upper limit beyond which no further strengthening of epistemic reasons can be gained.

Intuitive as the contrast may seem, we think the epistemic instrumentalist can explain it away. Doing so will require us to separate the two main inputs to the transmission principle, which jointly determine the weight of the transmitted reason. The first input consists of the reasons you have to pursue the aim of forming a true belief as to whether p . The scale associated with this input is presumably *unbounded*: you can always, at least in principle, get additional reason to pursue the aim of forming a true belief as to whether p . The second input is the evidential likelihood that believing p will result in a true belief as to whether p . The scale associated with this input is *bounded*: no amount of evidence can make it more than *certain* that believing p will result in a true belief as to whether p . (The point obviously generalizes beyond the epistemic domain: even the most effective means can at most *guarantee* that the relevant aim will be achieved.)

Once we keep these two components of the transmission principle separate, it becomes clear how the instrumentalist can maintain that epistemic reasons, just like practical instrumental reasons, have unbounded weights. Although the evidence can at most make it certain that believing p will result in a true belief as to whether p , the transmitted epistemic reason to believe that p will nevertheless be unbounded in weight, since the reasons to pursue the aim of forming a true belief as to whether p are unbounded in weight. (Again, this point generalizes beyond the epistemic domain: although φ -ing can at most guarantee the achievement of some aim, the transmitted *instrumental reason* to φ will nevertheless be unbounded in weight, since the reasons one might have to pursue the relevant aim are unbounded in weight.)

So far, so good for the instrumentalist story. But why does it *seem* to us that epistemic reasons have bounded weights, if really they do *not*? That's a fair question. We think that the epistemic instrumentalist has a good answer, one that centers around the tendency to think and

talk about epistemic reasons in an elliptical manner. As explained above, we often take the truth-aim for granted, and focus solely on whether the evidence at hand makes it likely that believing p will result in a true belief as to whether p . And since the evidential likelihood is measured on a bounded scale, it is thus not surprising that we tend to think of epistemic reasons as having bounded weights, although, strictly speaking, they do *not*.

4.2 *Miniscule reasons*

Another seeming contrast between epistemic reasons and practical instrumental reasons can be brought out by reflecting on the following consequence of the transmission principle: as long as there is a non-zero evidential probability that a given means will achieve a certain aim that you have reason to pursue, you will have at least a *miniscule* reason to take the means. How does this feature of the transmission principle fare in the practical and epistemic domains, respectively?

In the practical domain, the feature looks appropriate. Suppose you aim to become rich, and suppose that buying a lottery ticket gives you a small, but non-zero, chance of achieving that aim. Do you thereby have a practical reason to buy the ticket? Sure! Of course, the reason will easily be outweighed by other reasons you might have *not* to buy the ticket (say, reasons transmitted from the aim of not having to pay for the lottery ticket). But this is fully compatible with your having a miniscule reason in favor of buying the ticket.

Things look different in the epistemic domain. Suppose you aim to form a true belief as to whether p , and suppose that your evidence leaves a small, but non-zero, probability that p is true. Do you thereby have an epistemic reason in favor of believing p ? It seems not. Rather, you seem to have strong epistemic reason *against* believing p . After all, your evidence speaks strongly against p . When taken at face value, this seems to suggest that the transmission principle has implausible consequences in the epistemic domain.

However, we think the face value is misleading. On closer inspection, epistemic instrumentalists can maintain that you *do* have a miniscule epistemic reason to believe that p whenever the evidential probability of p is non-zero. To see why, note that the aim of coming to

a true belief as to whether p is equally fulfilled by believing p when p is true, and by disbelieving p when p is false. Thus, whenever there is a non-zero evidential probability of p being true, there will be two transmitted epistemic reasons in play at once: one in favor of believing p , and one in favor of disbelieving p . What is the relative weight of these opposing reasons? In cases where the evidential probability of p is very low, the latter reason clearly wins the day: you will have a miniscule reason to believe p , but this reason will be outweighed by a much stronger reason to disbelieve p . This is why it's tempting to think that you have no reason to believe p when your evidence speaks against p , although, strictly speaking, you *do*.

Before we proceed, let's anticipate a potential worry: how can the very same evidential input to the transmission principle yield both a reason to *believe* p and a reason to *disbelieve* p ? Doesn't this amount to saying, absurdly, that the same body of evidence can both *raise* and *lower* the probability of p ? No. The claim is not that the same evidential input to the transmission principle affects the *probability* of p in two different ways. Rather, the claim is that the same evidential input to the transmission principle combines with two different *means* to yield two different *reasons*: a reason in favor of believing p , and a reason in favor of disbelieving p . And there is nothing absurd about that.

4.3 "Permissive" vs. "prohibitive" balancing

The next property we want to discuss shows up in situations where you have equally strong reasons to take each of two incompatible actions or attitudes. The question is what you have all-things-considered or *overall* reason to do or believe in situations like this.

Let's first consider the practical domain. Suppose you face a choice between cake and ice cream, and that you are equally keen on having cake as you are on having ice cream. Provided that you have no other reasons bearing on the matter, it then seems natural to say that either option is permitted: you may have cake, and you may have ice cream. More generally, if φ and ψ are two incompatible actions such that you have equally strong practical reason to perform each

of them, it seems natural to say that either action is permitted: you may φ , and you may ψ . Following Berker (2018), let's call this property 'permissive balancing.'

Do epistemic reasons, like practical instrumental reasons, exhibit permissive balancing? It seems not. Suppose you are deliberating about whether to believe or disbelieve p , and suppose that your evidence consists of two equally trustworthy experimental studies: one supporting p , the other supporting $\sim p$. Here it seems that *neither* attitude is permitted: you may not believe p , and you may not disbelieve p . Rather, you should *suspend judgment* about p . Following Berker (2018), let's call this property 'prohibitive balancing.'

How might the epistemic instrumentalist explain away this seeming contrast? Once again, we think the key is to pay close attention to the mechanics of the transmission principle. The first thing to note is that, in specifying the epistemic case above, we said that the two experimental studies favor p and $\sim p$ equally strongly. But merely specifying the evidential input to the transmission principle is not enough to determine the weights of the transmitted epistemic reasons. We also need to specify the relative importance of the epistemic *aims* that are operative: the aim of forming a true belief as to whether p , and the aim of not forming a false belief as to whether p .

What is the relative weight of these aims? As a number of authors have observed, it seems to be a widely shared commitment that it is more important to avoid false beliefs than to secure true ones. We should, in other words, be epistemically *conservative* or *risk-averse*.¹⁸ Why? Here is a quick argument that gets the basic idea across: it seems obvious that you shouldn't believe p unless p is more likely to be true than false given your total evidence. However, if you found it just important to gain true beliefs as to avoid false ones, it's hard to see why this would be so. After all, believing p would give you just as good a chance of gaining a true belief as to gain a false one. Thus, it seems that you should consider it more important to avoid false beliefs than to gain true ones. That's the quick argument. As we argue elsewhere, it is surprisingly difficult to

¹⁸ See, e.g., Dorst (2019), Easwaran (2016), Steinberger (2019), and Pettigrew (2016).

make the argument hold up under closer scrutiny.¹⁹ But for present purposes, let's take it for granted that agents should be epistemically risk-averse, at least to some extent.

Given this assumption, the transmission principle delivers the result that you have more epistemic reason to suspend judgment about p than to believe or disbelieve p when the evidence is equally balanced for and against p . Believing (or disbelieving) p gives you a 50% likelihood of achieving the aim of forming a true belief as to whether p , and a 50% likelihood of achieving the aim of not forming a false belief as to whether p . Suspending judgment about p gives you a 0% likelihood of achieving the aim of forming a true belief as to whether p , and a 100% likelihood of achieving the aim of not forming a false belief as to whether p . Thus, assuming that the latter aim is more important than the former, the transmitted epistemic reason to suspend judgment about p is stronger than the transmitted epistemic reason to believe (or disbelieve) p . That's why you are neither permitted to believe p , nor permitted to disbelieve p .

You might think that this result just *reaffirms* the apparent contrast between epistemic reasons and practical instrumental reasons. However, the opposite is the case. The above considerations reveal a subtle, but crucial, disanalogy between the two cases that was used to motivate the difference between permissive and prohibitive balancing. On the one hand, the practical case is one where the two incompatible options—cake vs. ice cream—are associated with a set of aims (say, having to do with hunger, pleasure, etc.) that do not at the same time give rise to a transmitted reason to have *neither* cake *nor* ice cream. By contrast, the epistemic case is one where two incompatible attitudes—believing p vs. disbelieving p —are associated with a set of aims (forming a true belief, and not forming a false belief) that *do* at the same time give rise to a transmitted reason to *neither* believe p *nor* disbelieve p . The reason, then, why there *seems* to be a contrast between epistemic reasons and practical instrumental reasons is that we test them against very different cases.

In order to test whether the apparent contrast is genuine, we need to consider a practical case that is relevantly similar to the epistemic case. So, consider:

¹⁹ Skipper & Steglich-Petersen (ms).

Food Boxes: You stand before two opaque boxes. You are 50-50 about whether Box 1 contains cake or carrots; and you are 50-50 about whether Box 2 contains ice cream or lettuce. You face a choice between three options: (i) eating the contents of Box 1, whatever it contains; (ii) eating the contents of Box 2, whatever it contains; or (iii) eating nothing at all. There are two aims that you want to attain: to eat something healthy, and to not eat something unhealthy. As it happens, the latter aim is more important to you than the former: you'd rather avoid to eat something unhealthy than to eat something healthy.

Which option do you have most practical instrumental reason to take? Presumably, the third: eating nothing at all. But this means that the practical instrumental reasons that are operative in Food Boxes in fact exhibit *prohibitive* balancing: you are neither permitted to eat the contents of Box 1, nor are you permitted to eat the contents of Box 2. Thus, the apparent contrast between epistemic reasons and practical instrumental reasons disappears once we test their behavior against cases that are relevantly similar.

4.4 What does it take to have “sufficient” reason?

Our final focus of discussion concerns the question of what it takes to have *sufficient* reason for some action or attitude.

As usual, let's begin with the practical case. When do you have sufficient instrumental reason to perform some action? The transmission principle itself is silent on this issue. It merely states that the strength of a transmitted instrumental reason depends on the strength of the reason you have to pursue the relevant aim, together with the evidential probability that the action will achieve that aim. But note that it seems possible to have sufficient instrumental reason to perform an action even when the likelihood that the action will achieve the aim is quite low. Most obviously, this happens in cases where you have very strong reason to pursue the aim in question. Suppose, for example, that you are on a runaway train full of passengers, destined to crash within minutes. The feeble emergency brakes are extremely unlikely to stop the

train, but they might just, and there is nothing else to be done. Here it seems obvious that you have sufficient instrumental reason to pull the brakes, despite the low probability that doing so will stop the train.

Only a little less obviously, there are cases where you do not have particularly strong reason to pursue the aim in question, and yet seem to have sufficient reason to take the means. Suppose, for example, that you are imprisoned with nothing to do but passing time. Looking out the window rarely gives you any pleasure, but there might just be something new to look at this time. Given that you have nothing better to do, it seems that even such an unlikely prospect of mild diversion might give you sufficient instrumental reason to get up and look out the window.

Are similar situations possible in the epistemic domain? That is, could you ever have sufficient epistemic reason to believe a proposition that is very unlikely to be true in light of your evidence? It seems not. In fact, when it comes to reasons for belief, it seems that having sufficient reason to believe a proposition requires that the evidential likelihood meets a threshold of at the very least 50%, and according to most epistemologists much higher.

How might epistemic instrumentalists explain away this apparent contrast? The first thing to consider is what explains, on the instrumentalist account, why you cannot have sufficient epistemic reason to believe p when the evidential likelihood of p is 50% or below. The story is familiar by now. There are two epistemic aims at play at once: forming a true belief as to whether p , and not forming a false belief as to whether p . If the evidential likelihood of p is 50% or below, believing p will give you at most a 50% likelihood of achieving the aim of forming a true belief as to whether p , and likewise at most a 50% likelihood of achieving the aim of not forming a false belief as to whether p . By contrast, suspending judgment about p will give you a 0% likelihood of achieving the aim of forming a true belief as to whether p , and a 100% likelihood of achieving the aim of not forming a false belief as to whether p . Thus, given that you have reason to be epistemically risk-averse—i.e., given that you should be more concerned

with avoiding false beliefs than with securing true ones—you have stronger epistemic reason to suspend judgment about p than to believe p .

This line of reasoning makes vivid an important disanalogy between the practical and epistemic cases considered above. In the train case, the reason why it is natural to think that you have sufficient reason to pull the emergency brakes is that the aim of not crashing is presumed to be much more important than any other aim you might have in the relevant situation. In the prison case, the reason why it is natural to think that you have sufficient reason to get up and look out the window is that there are no competing options available to you. Neither of these features is shared by the epistemic case. The first feature does not show up in the epistemic case, since the aim of forming true beliefs is *not* the only important aim in the context: the aim of not forming false beliefs is also present, and at least as important. The second feature does not show up in the epistemic case, since the option of believing p *does* compete with the alternative option: namely that of suspending judgment about p . No wonder, then, that the cases seem to reveal a contrast between epistemic reasons and practical instrumental reasons.

In order to determine whether the apparent contrast is genuine, we must once again compare the epistemic case to a relevantly similar practical case. Let's simply recycle Food Boxes from above. As we recall, this is a case where you do *not* have sufficient practical reason to eat the contents of Box 1, nor sufficient practical reason to eat the contents of Box 2. Why? Precisely because the aim of eating something healthy competes against the aim of not eating something unhealthy, and because there is an alternative option available, namely to eat nothing at all. Thus, the apparent contrast between epistemic reasons and practical instrumental reasons again disappears once we compare these reasons against relevantly similar cases.

5. Conclusion

The goal of this chapter was to defend epistemic instrumentalism against the charge that epistemic reasons lack a number of properties of practical instrumental reasons. Our strategy was not to deny that such differences, if genuine, would count against understanding epistemic

reasons as a species of instrumental reasons. Rather, we wanted to argue that the seeming differences can be explained away by paying close attention to the mechanics of the transmission principle. In the course of doing so, we also offered what we take to be a simple and intuitive error-theory on behalf of the epistemic instrumentalist: the reason why epistemic reasons *seem* to lack various properties of practical instrumental reasons is that we tend to think and talk about epistemic reasons in an ‘elliptical’ manner. That is, we take the truth-aim for granted, and focus solely on whether the evidence at hand makes it likely that believing the proposition in question is likely to achieve the aim of forming a true belief about that proposition. If we are right, epistemic instrumentalists might obviously still be wrong for independent reasons. But they will at least have one thing less to worry about.

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