Massachusetts Institute of Technology

Immoderately Rational
Sophie Horowitz
Massachusetts Institute of Technology, Department of Linguistics and Philosophy
77 Massachusetts Avenue, 32-D808
Cambridge, MA 02139
sophieh@mit.edu

Your little brother's birthday is coming up. You want to give him a present, but you're not sure what would be best: it's got to be something he doesn't already have, and it's got to be good. As you're walking along one day, contemplating your options, a mysterious stranger approaches and hands you a pamphlet. It reads: *Give the gift of epistemic rationality! Our experienced technicians will gently scramble your friend or loved one's brains so that, from now on, she will believe what her evidence supports. Results guaranteed. All previously acquired evidence will be maintained. Call today!* "There's my answer!" you think to yourself. After all, you know that your brother – unlike you – often falls short of the epistemic ideals. By making him epistemically rational, this spa treatment should thereby make him epistemically better off.

Believing rationally is epistemically valuable, or so we tend to think. It's something we strive for in our own beliefs, and we criticize others for falling short of it. We theorize about rationality, in part, because we want to be rational. But why? I'll call this the "value question". Before picking up the phone, it seems, you should have an answer to the value question: you should be able to explain how believing rationally would benefit your brother. The answer to this question should be provided by the right epistemological theory. A good epistemological theory should allow us to identify a special feature of rational belief – something that your irrational brother now lacks, but would gain only by becoming rational. And that feature should be something worth caring about as much as we care about believing rationally.

The way one answers the value question will depend on the details of one's view. This paper explores one important way in which those details matter: whether, and to what extent, rationality is *permissive*. (That is, does our evidence completely determine what we should believe? Or do we have some leeway?) In the first half of the paper, I'll set out and compare the ways in which *extreme permissivism* and *impermissivism* can

answer the value question. In the second half, I'll turn to *moderate permissivism*. The surprising upshot of this discussion is that moderate permissivism, despite its popularity and prima facie appeal, fares particularly badly when evaluated from this perspective. Considering the value question therefore gives us a new reason to worry about moderate permissivism.

1. Extreme Permissivism

Before getting into the details of any particular view, I should say a bit more about what I mean by "permissivism" and "impermissivism". *Impermissivism* is the view that, given a total body of evidence, there is a unique ideally rational doxastic response that one can take to any proposition.[1] *Permissivism* is simply the denial of impermissivism, and encompasses a wide variety of diverse views. Some permissivists – I'll call them "extreme" permissivists – hold that *any* way of responding to evidence is rationally permissible, as long as one maintains certain formal relationships among one's beliefs. Others – "moderate" permissivists – hold that only *some* ways of accommodating evidence are rationally permissible. What these views have in common is the thought that two agents can share all of their evidence, but nevertheless have different rational beliefs.

Questions about permissivism largely cross-cut those about internalism and externalism, synchronic versus diachronic notions of rationality, and many others. One could hold a variety of different positions regarding these questions and still face a further choice between permissivism and impermissivism. Since the arguments here won't hinge on these other issues, it will help to restrict our attention to views that agree on everything aside from their stance on permissivism. To that end, I'll assume for present purposes that we have settled on a common conception of what counts as "evidence" (understood as what rational agents "learn"), and a common way of spelling out formal requirements of coherence or consistency.

The Bayesian framework provides a good way to compare permissive and impermissive views while holding everything else constant.[2] Bayesian views agree on

---

[1] This is often called "Uniqueness". See White [2007], Feldman [2007], Christensen [2007], Kelly [forthcoming], Cohen [forthcoming], and Schoenfield [forthcoming] for various formulations of the thesis.
[2] Bayesianism will also provide a natural setting for the discussion here; many people find my main target view, moderate permissivism, much more compelling for credences than for full belief.

certain formal constraints: rational agents must have probabilistically coherent credences, and update on new evidence by conditionalization. An agent's rational belief state at any time depends on both her total evidence *and* on her initial credence function (her prior unconditional and conditional credences, or "priors"). Different priors encode different ways of reasoning inductively; so, two agents who share their evidence, but not their priors, might disagree about quite a bit. Bayesianism by itself is silent on the question of which priors are rationally permissible, and is therefore compatible with a wide range of positions on permissivism. As I'll carve up the territory, extreme permissivists hold that *any* coherent priors are rationally permissible; moderate permissivists hold that several, though not all, coherent priors are rationally permissible; impermissivists hold that there is just one set of rationally permissible priors.[3]

With the debate set out this way, we can now look at how **extreme permissivism** – in particular, (extreme) Subjective Bayesianism – answers the value question. According to Subjective Bayesianism, we are rationally required to follow the Bayesian formal constraints (probabilistic coherence and conditionalization). But there are no further requirements dictating what our priors should look like; any are rationally permissible.

If Subjective Bayesianism is right, why does rationality matter? Recent work in formal epistemology has brought out one way in which Subjective Bayesians can answer this question. That is, they can point out that rationality, on their view, is both necessary and sufficient for complying with the following principle:

Immodesty: The credences recommended by your own epistemic rule, given a body of evidence, should uniquely maximize expected accuracy for you.

In a Bayesian context, following your "epistemic rule" amounts to updating your prior credence function by conditionalization; Immodesty dictates the way you should regard that epistemic rule, if you compare it to others. I'll say a bit about what Immodesty means, and then come back to its relation to Subjective Bayesianism.

The main motivation for Immodesty is the thought that a rational agent should be doing well by her own lights, in a particular way: roughly speaking, she should follow the

---

[3] My uses of "extreme" and "moderate" in this context follow Meacham [ms]. White [2007] uses the same terms to mark a different distinction.

epistemic rule that she rationally takes to be most truth-conducive.[4] It would be *irrational*, the thought goes, to regard some epistemic rule as more truth-conducive than one's own, but not adopt it. (Of course, we have to be careful with scope here: it's often rational to believe that there exists *some* epistemic rule, or way of responding to evidence, that is more truth-conducive than one's own. A rule that ignored misleading evidence, for example, would be more truth-conducive than a rule that took all evidence into account; it seems perfectly rational to believe that there are such rules out there, though we can't identify which ones they are. What's *not* rational, then, is to regard some *particular* epistemic rule as more truth-conducive than one's own, while also knowing which belief state that rule recommends in every case.) Immodesty says that, among particular epistemic rules that you can compare to your own, you should regard your own as optimal, or as giving you the best shot at having true beliefs. An immodest agent's beliefs are therefore stable in a certain way: we might say that she's living up to her own epistemic standards, or taking (what she sees as) the best epistemic means to her end of believing truly. This seems like a good thing.

I put the motivation for Immodesty in terms of *truth*-conduciveness, but of course credences can't be true or false. So when we're working with credences, we can think instead about *accuracy*, or closeness to the truth. If P is true, a credence of .8 in P is intuitively more accurate than a credence of .7; the opposite holds if P is false. Formal epistemologists often measure accuracy using utility functions (called "scoring rules") that assign value to credences depending on how close they are to the truth. The more accurate your credence, the better the score will be. When you aren't sure how accurate some credence in P is – which will happen whenever you aren't sure whether P is true – you can find the *expected* accuracy of that credence by taking a weighted average of the credence's score in cases where P is true and in cases where P is false; weights are given by your own credence in P and in ~P, respectively. In order to be *immodest* when you

---

[4] I don't mean to build in much by "rule" here; we can think of an epistemic rule as a mapping from evidence to belief states. "Following" a rule, for present purposes, just involves adopting the belief state that corresponds to your total evidence.

aren't sure what's true, you must regard the credences recommended by your own epistemic rule as *maximizing expected accuracy.*[5]

Back to Subjective Bayesianism: on that view, why is rationality necessary and sufficient for obeying Immodesty? Formal epistemologists have defended each of the Bayesian formal constraints, separately, by appealing to Immodesty (or closely related principles). Joyce argues that if you have *coherent* credences, you will be immodest: from your perspective, your own credences will maximize expected accuracy. But if you have *incoherent* credences, you will not be immodest.[6] Greaves and Wallace defend Subjective Bayesianism's second formal requirement, conditionalization, by appealing to similar considerations of expected accuracy. If you have coherent credences, they argue, then from the point of view of your own credences, updating by conditionalization will maximize expected accuracy (and other methods of updating will not).[7] Putting those together, a Subjective Bayesian can argue that a rational believer is just an immodest one.

---

[5] To head off a couple of worries here: you might be concerned that, because it dictates how one should regard one's own beliefs and epistemic methods, Immodesty implausibly requires us to form beliefs about all of these matters. To avoid that, we can think of Immodesty as a principle of *propositional*, rather than *doxastic* justification: it tells us what opinions would make sense for a rational agent to have, should she happen to form opinions at all. Second, one might worry that, since it's framed in terms of maximizing a certain value, Immodesty appears to commit us to consequentialism about epistemic rationality. For reasons of space, I won't get into this issue in depth here. But it's not clear to me that non-consequentialists should be concerned that the Immodesty demand requires consequentialism. In general, we can think about Immodesty as a kind of "internal harmony" among one's beliefs about the world and one's beliefs about truth. If a rational agent believes P, she should also regard *believing P* as a better way to align one's beliefs with the truth than *disbelieving P* or suspending judgment.

[6] See Joyce [2009]. Joyce [1998] provides a slightly different argument for coherence. If you have *incoherent* credences, he argues, they will be *dominated* by a coherent credence function: that is, some coherent credence function will be at least as accurate as yours in every world, and more accurate in some. I prefer expected accuracy arguments rather than dominance in this context because they can get us a stronger immodesty principle: that your credences aren't just best, but *uniquely* best. (Realizing that your coherent credences are non-dominated gives you no reason to think that they are better than other coherent credences, which are also non-dominated.) One wrinkle here is that it's a bit hard to know what to say about probabilistically incoherent believers if we focus on expected accuracy rather than dominance. It's true that probabilistically incoherent agents won't be immodest in the sense I'm working with, but that's because our definition of immodesty refers to expected value, which is not defined for incoherent credence functions. It might not seem so bad if incoherent agents fail to be immodest for this reason. In response to this worry, one could define a broader notion of expected value meant to apply to both coherent and incoherent credence functions (see Leitgeb and Pettigrew [2010], p. 214-215 for a view like this) and use that to make arguments about what incoherent agents should believe. Less contentiously, one might just point out that, on a Subjective Bayesian view, we now have an argument *for* immodesty on behalf of coherent believers, but that we have no such argument for incoherent believers. This still seems to bring out something good about being coherent. Thanks to Kenny Easwaran and Richard Pettigrew for drawing my attention to these issues.

[7] Greaves and Wallace [2006]. Accuracy in this context is assessed by a scoring rule, which assigns value to one's credences as they get closer to the truth. A complication in these arguments is that not *all* scoring

Immodesty is widely held to be a necessary condition on rational belief.[8] And if Joyce's and Greaves and Wallace's formal arguments are right, obeying the Bayesian formal constraints will guarantee that one complies with Immodesty. This means that Immodesty will be true on any Bayesian view, including those that are less permissive. But for Subjective Bayesians, who only endorse the formal requirements, believing rationally just is believing immodestly. Rationality is good because it's good to do well from one's own perspective; you should make your little brother rational because it will at least guarantee that he will follow an epistemic rule that does well by its own lights.

2. Impermissivism

Insofar as Immodesty is a good thing, (extreme) Subjective Bayesianism seems to provide a good answer to our central question: it points to a unique feature of rational belief that is plausibly worth caring about. But many people worry that the notion of rationality articulated by Subjective Bayesianism, and by other extremely permissive views, is simply too weak. The most obvious (and notorious) reason for doubt is that if we only place formal constraints on rational belief, we have to count all kinds of internally consistent views (skeptics, grue-projectors, Tea Party "birthers", etc.) as rational. One might argue that this is simply implausible: holding those views, at least given the kind of evidence that most of us have, is *not* rational. So Subjective Bayesianism just doesn't give us a good account of what rationality is like.

Second, one might take issue with the Subjective Bayesian's answer to the value question: though Immodesty is a good thing, perhaps it's not good *enough* to explain why we should care about rationality. (In particular, one might add, it's not obvious how good

---

rules will do the job of supporting immodesty; those that do form a class called "strictly proper scoring rules". So one way of seeing these arguments is as defending two things simultaneously: the Subjective Bayesian constraints, as rules of rationality, and proper scoring rules as a refinement of our notion of accuracy. I won't get into the details of this issue here.

[8] For example, Lewis [1971] argues that inductive methods are only eligible for rational use if they "recommend themselves", or take themselves to be optimal. Field [2000] adopts a similar notion of immodesty, arguing that we should take our own epistemic rules to be good guides to the truth. Gibbard [2008] defends something like immodesty – he argues that epistemic rationality involves seeing oneself as believing optimally, in some sense – but objects to interpreting it in terms of expected accuracy. Many epistemologists working in the Bayesian framework take up Immodesty, spelled out in expected accuracy terms, as a datum; one clear example is Moss [2011].

it is to be immodest if, as Subjective Bayesianism allows, one's rational beliefs could so easily be so radically mistaken.)

Epistemologists who take these concerns seriously argue that in addition to *formal* constraints, there are also strong *substantive* constraints on rational belief. **Impermissive** views hold that the substantive constraints are so strong that rational permission and rational obligation coincide. According to (Extreme) Objective Bayesianism, which we can take as a paradigmatic impermissive view, there is just one rational set of priors. A rational agent must have those priors, and update on new evidence by conditionalization. So two agents with the same total evidence should, rationally, have the same total belief state.[9]

Impermissivism is attractive for a number of reasons. Unlike extreme permissivism, it allows us to rule out skeptics, counterinductivists, and grue-projectors, and defend other substantive rational requirements traditionally discussed by epistemologists. It is also broadly in line with how we often think about evidence: we talk about "what the evidence supports" as if there is only one evidential support relation, and we ask what a rational agent would believe under certain circumstances as if there is only one option for what that could be.

Impermissivism also offers an attractive answer to the value question. That is, impermissivists can argue that rationality matters because it guides us to the truth, in a particular way: given a body of evidence, the rational credences are those that maximize expected accuracy. To see why, suppose you know that your way of accommodating evidence is rational, and you know that rationality is impermissive. Yours is therefore the *only* rational way of responding to evidence, so you know that any rational believer will accommodate her evidence by conditionalizing on *your priors.* And because of Immodesty – which holds on any Bayesian view – those credences should maximize expected accuracy from the point of view of *your* credences. Putting these pieces together, you can explain why rationality is valuable: believing as rationality recommends maximizes expected accuracy.[10]

---

[9] See White [2007] for a defense of impermissivism. See also Feldman [2005] and Christensen [2007]. Williamson [2000]'s notion of "evidential probability" is a version of Objective Bayesianism, though its relation to justified beliefs or degrees of confidence is not straightforward.

[10] Dogramaci [2012] makes a similar point, in explaining why we should defer to testimony from other

To put the point another way, if impermissivism is true, a rational agent who knows she's rational, and knows what rationality requires, should be able to make the following argument:

Where E is any body of total evidence, and C is any credence function:

P1. If C is any rationally permissible response to E, then my epistemic rule will recommend C, given E.
P2. If my epistemic rule recommends C, given E, then C maximizes expected accuracy given E.
C. If C is a rationally permissible response to E, then C maximizes expected accuracy given E.

A rational agent should hold P1 just by virtue of knowing that she's rational, and knowing that rationality is impermissive. She should hold P2 because of Immodesty. From those two, she can conclude that *any* rational response to total evidence E will maximize expected accuracy. The benefits of believing rationally are exactly the same benefits that one receives from responding to evidence as she does. Moreover, drawing this conclusion is no accident. By virtue of our taking up the perspective we did – that of a rational agent who knows what she believes, and knows what rationality requires – we are guaranteed to reach this conclusion.

Subjective Bayesianism merely requires that believers do well from their own perspectives (whatever that might involve); if you make your little brother rational by Subjective Bayesian standards, you will only be able to guarantee that he maximize expected accuracy by his own lights. His expected accuracy by *your* lights could be way off, even if you share all of your evidence. So, for Subjective Bayesians, rational agents should endorse their own credences, and their own epistemic rules, but shouldn't endorse other rational agents' epistemic rules. Objective Bayesianism gives us something much stronger: if you make your brother rational by Objective Bayesian standards, you can explain that this is a good idea because it guarantees that he will maximize expected

---

rational agents: "…[Y]our own beliefs can serve as bases for inferred conclusions that I can then acquire by testimony. And this is all possible because, when we share rules, I can trust that you will draw the same conclusion from an evidential basis that I would." (p. 524) Dogramaci does not explicitly endorse either impermissivism or permissivism, but his defense of "epistemic communism" is similar to the account of epistemic value that I offer on behalf of the impermissivist.

accuracy, full stop. Rational Objective Bayesians should endorse their own epistemic rules and those of others in just the same sense.[11]

3. Moderate permissivism

Impermissivism gave a good answer to the value question: if impermissivism is right, it's clear that rationality is worth caring about. But some epistemologists worry that the view is too demanding. If there is just one rational way of accommodating evidence, there is no possibility of rational disagreement or leeway in what we may believe. Some argue that disagreement among scientists or jurors with shared evidence does not mean that one party or another must be making an epistemic error. It might also seem implausible to think that rationality extends to all subject matters, or that rationality narrows down the permissible responses to a body of evidence as drastically as impermissivists suggest.[12] Kelly describes the current state of play as follows:

> [N]otably, even Bayesians who are considered Hard Liners for holding that there are substantive constraints on rational prior probability distributions other than mere probabilistic coherence typically want nothing to do with the suggestion there is some uniquely rational distribution. With respect to this long running debate then, commitment to [impermissivism] yields a view that would be considered by many to be beyond the pale, too Hard Line even for the taste of most Hard Liners themselves.[13]

While extreme permissivism seemed too weak, impermissivism seems too strong.

---

[11] While I'm calling this a "truth-guiding" account of the value of rationality, there's a sense in which it isn't "really" truth-guiding; the connection to truth is cast in subjective, rather than objective, terms. So it's possible on this account to have a rational agent who is vastly mistaken about the world. An impermissivist should not say that rationality *guarantees* that this is not our situation. But she can say that such a situation is very *unlikely*. Cohen [1984] raises some worries for a subjective connection between rationality and truth, mainly targeting the view that one must believe that one's epistemic rules are reliable in order to use them. Requiring us to form all of these higher-order beliefs, Cohen argues, is an unrealistic and undue cognitive burden. We can sidestep many of these worries by thinking of this view as one about propositional, rather than doxastic justification: the idea here is that *if* one were to form beliefs about the reliability of one's methods, one would be justified in taking the attitudes described by Immodesty.

[12] See, e.g., Rosen [2000], Douven [2009], Cohen [forthcoming], Kelly [forthcoming], Teller [forthcoming], Schoenfield [forthcoming], and Meacham [ms] for objections to impermissivism along these lines.

[13] Kelly [2010], p. 11. Douven makes a similar observation: "[M]ost Bayesians nowadays think rational degrees of belief are to satisfy additional constraints [beyond satisfying the axioms of probability]… Still, to the best of my knowledge no one calling him- or herself a Bayesian thinks that we could reasonably impose additional constraints that would fix a unique degrees-of-belief function to be adopted by any rational person and would thereby turn Bayesianism into a fully objective confirmation theory." (Douven [2009], p. 348)

In light of this, many epistemologists are drawn to an intermediate position: **moderate permissivism**. Recently, some epistemologists have explicitly defended this type of view.[14] And it also seems to enjoy something of a "default" status among others. In many ways, moderate permissivism looks like a happy compromise between extreme permissivism and impermissivism. Like impermissivism, moderate permissivism allows us to place substantive constraints on rational belief. (For example, a moderate permissivist might insist that rational agents assign comparatively higher initial credence to non-skeptical hypotheses, and comparatively lower initial credence to skeptical ones.) But like extreme permissivism, moderate permissivism also allows us to make sense of rational disagreement, and gives us some leeway in how we may respond to our evidence.[15]

In explaining why you should want your little brother to be rational, moderate permissivists cannot help themselves to the accounts offered by the other two views. They cannot appeal only to the value of complying with Immodesty, because for moderate permissivism, rationality requires more than just coherence and conditionalization. (And anyway, moderate permissivism is designed to *rule out* many immodest believers.) The impermissivist's strong accuracy-based answer is unavailable as well: making your brother rational will not guarantee that he end up with your priors, so if he becomes rational, he will not be guaranteed to maximize expected accuracy from your point of view. (In the argument in the last section, moderate permissivists must deny P1.)[16]

---

[14] See especially Kelly [forthcoming] and Schoenfield [forthcoming] for examples of the types of view I have in mind.

[15] Moderately permissive views can be more or less moderate. Pettigrew [2012] and Meacham [ms], for example, discuss versions of moderate permissivism on which the only substantive constraint is compliance with the Principal Principle. This proposal is very close to Subjective Bayesianism, and Pettigrew argues that it can be defended on similar lines. It might turn out, then, that this view can answer the value question along similar lines as well. Because it is so permissive, though, it will not be attractive to anyone who is worried about things like skepticism and grue-projection. For the present discussion, I will set aside this type of view and focus on less-permissive moderate views.

[16] It's true that moderate permissivists can't say that rational belief maximizes expected accuracy as assessed from *the* rational perspective. But couldn't they say, instead, that rational belief maximizes expected accuracy from *a* rational perspective? (Each rational credence function will maximize expected accuracy relative to one rational credence function: itself.) Moderate permissivists could say this, but they also will have to say more: *extreme* permissivists, after all, can also say that rational belief maximizes expected accuracy as assessed from a rational perspective. So moderate permissivists will need to say why their view goes beyond extreme permissivism. Once we add something to this view, however, our answer to the value question becomes less unified. If we wanted to identify a unique, valuable property of rational

But even with impermissivists' answer out of reach, it's plausible that moderate permissivists' answer to the value question should involve some connection to truth or accuracy. One of the motivations for rejecting *extreme* permissivism, after all, was the thought that radically out-of-touch believers should not count as rational. So a weaker accuracy-based strategy looks like a promising option for moderate permissivists: although rationality does not *maximize* expected accuracy, perhaps it *increases* expected accuracy. Rational believers should, in general, do better accuracy-wise than irrational believers. This strategy, if successful, would be a good start to answering the value question. Making your brother rational would make him epistemically better off because it would give him a better shot at believing accurately.

This section will be primarily devoted to examining the prospects for giving an "increased expected accuracy" answer to the value question. I'll argue that the strategy faces serious challenges; looking at why will illustrate some more general ways in which moderate permissivism yields odd results when we consider how rational agents should think about rationality itself. At the end of the section, I will return to the question of whether other kinds of answers to the value question might work.

The increased expected accuracy answer is initially attractive. A quick-and-dirty argument supporting the strategy might go like this: according to moderate permissivism, there are some bodies of evidence (let's call one "E") such that, although rationality does not mandate a unique doxastic response, it does require that one's credence in P fall within a certain *range*.[17] Now consider how a rational agent with total evidence E, whose credence in P falls within the rational range, should regard others with total evidence E who do and do not fall within that range. Because of Immodesty, she should take her own credence in P to maximize expected accuracy; the expected accuracy of *other* credences

---

belief, this kind of strategy won't give us one. Though that isn't a knock-down objection, I think it is at least reason to worry that this strategy won't yield a satisfactory answer to the value question. Thanks to Dennis Whitcomb for suggesting this response on behalf of moderate permissivism, and for helpful discussion on this point.

[17] Though this position isn't explicitly endorsed by permissivists as far as I can tell, it is often in the background. For example, Kelly writes, "the Permissivist might think that what permissive cases there are, aren't all that permissive. … [Suppose] you and I agree on the basis of our common evidence that the Democrat is more likely than not to be elected. … The only difference between us is this: [you] give a bit less credence to the proposition that the Democrat will win than I do. Here there seems little pressure for me to conclude that you are less reasonable than I am." (Kelly [forthcoming], p. 2-3)

in P will get higher and higher, from her point of view, as they get closer to hers.[18] Other credences in P that fall *within* the range will generally be closer to hers than credences *outside* the range. So other agents' credences will tend to have higher expected accuracy if they are rational, and lower expected accuracy if they are not.

But while the increased expected accuracy strategy looks good at first glance, closer inspection reveals some problems, which I'll outline below: First, this view runs into problems with justifying coherence. Second, even if we set that aside, the strategy does not succeed in picking out a *unique* positive feature of rational belief. Following this strategy also allows rational agents to disagree about the answer to the value question, which I'll argue is an odd and undesirable consequence. Finally, I'll argue that any expected-accuracy-based account puts moderate permissivism at a disadvantage in comparison to impermissivism.

To see how the first problem arises, consider what a strong version of the increased expected accuracy strategy would say: that rationality *guarantees* a certain high degree of expected accuracy, from the point of view of any rational agent. That is, that given a body of evidence, there is an "expected accuracy threshold" that divides the rational belief states from the irrational ones. If your brother is irrational, he's *below* the threshold; making him rational would ensure that he end up *above* the threshold. We might think of this as a "satisficing" view, in contrast to the impermissivist's maximizing view.

Now suppose you're rational, and you have probabilistically coherent credences. You want your brother to meet the expected accuracy threshold, so you need to give him credences closer to yours. But do you need to give him coherent credences? Not if you only care about expected accuracy: in addition to the coherent credences that meet the threshold, there will be lots of incoherent credences that do too.[19] So if moderate

---

[18] This is an intuitively plausible constraint on acceptable ways of measuring both closeness and accuracy of credence functions. For a proof that this constraint is true of strictly proper scoring rules, see Pettigrew [2013] (appendix).

[19] For example, suppose your credence in P is .5, and your credence in ~P is also .5. It might be rational to have .6 credence in P, and .4 in ~P – suppose that coherent assignment of credences has high expected accuracy as assessed by your credences and your scoring rule, so it meets the required threshold. But then some incoherent assignments of credences will plausibly also meet the threshold: for instance, .51 credence in P and .5 credence in ~P. Thanks to Jennifer Carr and Brian Hedden.

permissivists want to require coherence as well as high expected accuracy, they will need to say something more: the satisficing view can't give us the whole story.

Even setting aside those worries, however, the satisficing view is still false. Suppose a body of evidence, E, rationalizes any credence in P from .6 to .8. Alice, Bob, and Charlie all have total evidence E, and different credences in P, as follows:

Credence in P, given E:

```
                                      [ rational range ]
                                      .6      .7     .8 .81
|----------------------------------------------|---------|-------|--|--------------|
                                       A       B  C
```

Suppose further (as we have assumed so far) that our rational agents know everything we do about their setup: Alice and Bob both know what they believe, and know what rationality requires.[20] How should Alice and Bob answer the value question?

From Alice's perspective, something like the satisficing view makes sense: all of the rational credences in P are closer to her own than the irrational credences in P, so she should regard the rational credences as having higher expected accuracy than the irrational ones.[21] Speaking loosely, Alice's beliefs about what's rational line up with her beliefs about what's accurate. But from Bob's point of view, things look much worse.

---

[20] While many permissivists accept that there can be cases like this, some do not. For instance, Cohen [ms] argues that rationality is only permissive when one is unaware of the other permissible options on one's evidence. A view like this might be able to avoid many of the problems I raise here for moderate permissivism. I don't have the space to give this view the attention it deserves, but I will mention a few reasons to think that permissivists should be hesitant to adopt it. First of all, Cohen's view commits us to the claim that there can be widespread rational ignorance, or rational false beliefs, about what rationality requires: and indeed, that this kind of ignorance is rationally required in all permissive cases. This is a very strong conclusion (as Ballantyne and Coffman [2012] point out). Second, this view undermines some popular motivations for permissivism: for example, it implies that you and I could never rationally recognize our own situation as a "reasonable disagreement" of the type supposedly found on juries or among scientists.

Cohen embraces this conclusion, and argues that when we find out which other credences are rational (perhaps through disagreement with others) we should conciliate. But this means that if a rational agent takes any view of her own epistemic situation at all, she must believe that if her evidence is permissive, her own credence in response to it is near the middle of the permissible range (at least in expectation). (If she thought her credence was near the lower bound of the permissible range, say, she would have pressure to move towards the middle.) Why is the middle of the range so special, and why should we try to approach it in response to disagreement? See Cohen [forthcoming] and Christensen [2009] for further comments. Thanks to Louis deRosset for helpful discussion on this topic.

[21] I'm simplifying a little here; depending on which scoring rule we're using here, it might turn out that the "middle" of the rational range isn't actually where we should put Alice in order to make the threshold view come out true from her point of view.

Imagine how Bob should compare Alice and Charlie's beliefs. "Alice is rational," he might think to himself; "her credence is in the permitted range. Of course, it's probably a bit less accurate than mine; so, I'm doing somewhat better than she is in terms of accuracy. But nevertheless, since she's rational, there's something commendable about her having credence .7 in P."[22] Then he considers Charlie: "Charlie is irrational; his credence is outside the permitted range. So he is missing out on that special commendability that Alice has. But fortunately for him, he's doing quite well, accuracy-wise. In fact, he seems to be doing better than Alice!"

The satisficing view predicts that rational agents should regard all rational responses to E as having higher expected accuracy than all irrational ones. But in this case, that wasn't true: since Charlie's credence in P is much closer to Bob's than Alice's is, Charlie's credence in P has higher expected accuracy, from Bob's point of view, than Alice's. This observation makes the value question especially salient. From Bob's point of view – and in fact, from the point of view of any rational agent, other than Alice – what is the sense in which rational beliefs are better than irrational ones? What is it that rationality gives Alice, but that Charlie lacks? So far it's still not clear.

Maybe there's a way to weaken the increased-expected-accuracy view in response to this first objection. For instance, we could say that rationality increases expected accuracy "in general", or "on average"; our next job would be to say more about what that means. But even if we can make sense of a weaker view, the increased expected accuracy account still faces additional challenges.

The third problem with the increased expected accuracy strategy is that it allows different agents to rationally disagree about the value of rationality. Staying with the example above, compare how Alice and Bob will each assess the extent to which rationality tends to increase one's expected accuracy. For Alice, whose credence in P is in the middle of the permissible range, believing rationally is a reliable way of believing something close to what she believes, and therefore a reliable way of gaining high

---

[22] Bob should think that his own beliefs maximize expected accuracy, again, because of Immodesty. Schoenfield [forthcoming] argues that this is why someone in Bob's situation should not regard the choice between his credence and Alice's as "arbitrary", contra White [2007]; we should stick to our own credences in permissive cases because we see those credences as maximizing expected accuracy.

expected accuracy.[23] But for Bob, whose credence in P is on the outer edge of the permissible range, believing rationally will not appear to be a particularly good way of gaining high expected accuracy. So Alice and Bob can rationally disagree about how valuable rationality is.

Of course, for permissivists, rational disagreement happens all the time. But this instance of rational disagreement seems especially odd. For one, what would *settle* Alice and Bob's disagreement? If we say that one of them is right – for example, if we argue that Alice's position is authoritative, and Bob is mistaken – we seem to undermine one of the main reasons to hold permissivism in the first place. Permissivism is partly motivated by precisely the thought that there is no unique, privileged way to respond to one's evidence. Designating one particular response to evidence as the unique arbiter of an (arguably) a priori matter seems to give up that thought. Taking this line would also require us to say that poor Bob is doomed to have false (but justified) beliefs about the value question; this might also seem like an odd consequence if we take the value question to be a priori.

Alternatively, we could claim that there is just no fact of the matter about the degree to which rationality increases expected accuracy, and hence, no unique right answer to the value question. Alice and Bob's answers are equally good. (So, we would give a kind of relativist account of rational value.) But if we go this way, there's still something puzzling about comparing the two answers: while Alice's perspective on rationality seems relatively sensible and coherent, Bob's does not. From Alice's perspective, moderate permissivism might look quite attractive. Field, for instance, argues (briefly) that we should be "moderate relativists" about epistemic rationality because we should recognize several different ways of responding to evidence, even those that differ from our own, as "by no means beyond the pale".[24] For Alice, this makes sense: Alice should regard herself as a reasonable, middle-of-the-road believer, and should regard other rational agents as similarly reasonable.

But just as we saw with the satisficing view, Field's proposal doesn't make sense for someone in Bob's position. If Bob agrees with Alice about which epistemic rules are

---

[23] Again, I'm glossing over some issues about "closeness" here (see fn. 7). But I think we can make sense of the general point without going into detail on this issue.
[24] Field [2000], p. 141.

"beyond the pale", he should see *himself* as being just on the edge of craziness; this seems like an unstable position to be in. But if Bob *disagrees* with Alice about which epistemic rules are beyond the pale, it seems like Bob should also disagree with Alice about which epistemic rules are rational. (This leads to more trouble, along the lines of what we saw above. If Alice and Bob disagree about what's rational, what settles *that* disagreement? And are some agents, like Bob, doomed to have rational false beliefs about what's rationally required?) However we spell it out, it looks like moderate permissivists will have trouble explaining Bob's predicament.

Finally, even supposing that we can answer these objections, there is something unsatisfying about any increased expected accuracy answer to the value question. That is: it looks like anything moderate permissivism can do, expected-accuracy-wise, impermissivism can do better. Suppose you have two options for your brother's birthday present: spa #1 makes him rational, and spa #2 gives him *your particular* rational epistemic rules. If you care about your brother's accuracy, it might be better to send him to spa #1 than to leave his irrational epistemic rules in place. But it would an *even* better idea, for the same reasons, to send him to spa #2. It's hard to see why the first spa is worthy of special recognition at all.

How much trouble will moderate permissivism be in, if it cannot give an accuracy-based answer to the value question? Some might be tempted to respond that this isn't a worry at all: this is just the kind of question that doesn't need to be answered in the first place. But this response won't be satisfying for anyone who *does* want an answer to the value question. And given that extreme permissivists and impermissivists can give accounts of why rationality matters, the claim that the value question is "unanswerable" becomes less plausible.

Assuming that moderate permissivists do want to answer the value question, perhaps they could take some other strategy, completely unrelated to accuracy. Or perhaps moderate permissivists could offer a more complicated account (such as, "rationality is about Immodesty *and* following induction"). But there's reason to think that an accuracy- or truth-based answer is moderate permissivism's best hope.

In answering the value question, we aimed to find some feature of rational belief that explains why rationality is worth caring about. And there *is* something that explains why we should care about each of the individual substantive rational requirements traditionally discussed by epistemologists: induction, anti-skepticism, green-projection, etc. Following these requirements keeps us connected to the world, and helps us get to the truth. (This is a big part of why some epistemologists are so invested in defending substantive requirements in the first place: skeptics and grue-projectors are just getting things wrong!) So a theory of rationality that holds all of these requirements should be able to appeal to their common feature in explaining why these requirements are worth caring about. If moderate permissivism can't appeal to truth, the view misses out on a particularly intuitive, unified account of the value of rationality.

For that reason, it seems unlikely that moderate permissivists will be able to answer the value question in a way that does not appeal to truth at all. The best strategy, for moderate permissivists, might be to fix up some version of the increased expected accuracy answer. But how?

4. A final objection

I've suggested some ways in which extreme permissivists and impermissivists can answer the value question, and given reasons to worry that moderate permissivists may not be able to do the same. But you might worry that the impermissivist's answer to the value question isn't so great. In order to give the impermissivist's answer, we must take up the perspective of someone who already holds a particular impermissive view. (For example, in order to accept an argument that following induction maximizes expected accuracy, it seems like we must already be committed to following induction ourselves.) So, the impermissivist's answer to the value question is self-supporting.[25]

We can answer this objection, first, by thinking back to how our challenge was originally set up. We started off by observing that we want to be rational, and that if we

---

[25] Meacham [ms] and Teller [forthcoming] each raise versions of this worry. Similar complaints have been raised against the extreme permissivist's defense of Immodesty. Subjective Bayesians argue that coherent agents should regard their credences as maximizing expected accuracy according to a proper scoring rule – but why should we think that this is the right way to measure accuracy? One of the main motivations for using *proper* scoring rules is that they allow coherent agents to be immodest. So the extreme permissivist's answer to the value question might be similarly unconvincing to those who don't already hold the view. See Maher [2002] and Gibbard [2008] for two versions of this worry about Subjective Bayesianism.

could, we would want to make others rational too. The challenge was to explain why this is; in looking for an explanation, we wanted an account that a rational agent could give just by reflecting on the nature of the rational requirements according to various different views. But in order to see what an adherent of some view could say in her own defense, we have to see how things look from her perspective. So with the project set up in this way, it's no surprise that the answers we ended up with turned out to be self-supporting. Self-supporting answers are exactly what we were looking for.

Perhaps the objector wanted something stronger: an account of the value of rationality that appealed to neutral premises, and could convince opponents. But while this more ambitious kind of account would be nice to have, it might turn out that in order to defend any substantial epistemological view, we need to take a much more modest approach. We might only be able to explain the position from inside, rather than justify it to outsiders. If that's the case, a self-supporting answer to the value question might be the best we can hope for.

Moreover, even if self-supporting arguments don't seem impressive from the outside, the ability to offer a self-supporting defense is, plausibly, a prerequisite for the viability of any view. So even an ambitious objector should give some weight to the question of whether or not a view can defend itself from the inside. For this objector, then, the arguments here still provide reason to worry about moderate permissivism.

Conclusion

Both extreme permissivism and impermissivism take strong positions on how *permissive* rationality is: one is very lenient, and the other is very demanding. Moderate permissivism seemed initially attractive because it strikes a compromise between these two extremes. But in combining the attractive features of extreme permissivism and impermissivism, moderate permissivism seems to lose the benefits of both: it is hard to see why rationality, as moderate permissivism construes it, is especially worth caring about.

If moderate permissivism is right, why does rationality matter? In the absence of a good explanation, we should feel a significant push to one of the extremes: a completely permissive, or a completely impermissive account. Moderation, in this case, is no

virtue.[26]

Bibliography

Ballantyne, Nathan & Coffman, E. J. [2012]. Conciliationism and Uniqueness. *Australasian Journal of Philosophy* 90 (4): 657-670.

Christensen, David. [2009] "Disagreement as evidence: The epistemology of controversy". *Philosophy Compass* 4 (5): 756-767.

Cohen, Stewart. [1984] "Justification and Truth". *Philosophical Studies* 46 (3): 279--95.

– "A Defense of the (Almost) Equal Weight View". Forthcoming in David Christensen and Jennifer Lackey (eds.), *The Epistemology of Disagreement: New Essays*. Oxford University Press.

Dogramaci, Sinan. [2012] "Reverse Engineering Epistemic Evaluations." *Philosophy and Phenomenological Research* 84 (3): 513-530.

Douven, Igor. [2009] "Uniqueness Revisited". *American Philosophical Quarterly* 46 (4).

Feldman, Richard. [2007] "Reasonable Religious Disagreements", in Louise Antony (ed.) *Philosophers Without Gods: Meditations on Atheism and the Secular Life*. Oxford: Oxford University Press, pp.194-214.

Field, Hartry. [2000] "Apriority as an Evaluative Notion". In Paul A. Boghossian & Christopher Peacocke (eds.), *New Essays on the a Priori*. Oxford University Press.

Gibbard, Allan. [2008] "Rational Credence and the Value of Truth'. *Oxford Studies in Epistemology* 2.

Greaves, Hilary and Wallace, David. [2006]. "Justifying conditionalization: Conditionalization maximizes expected epistemic utility". *Mind* 115 (459): 607-632.

Leitgeb, Hannes and Pettigrew, Richard. [2010] "An Objective Justification of Bayesianism I: Measuring Inaccuracy". *Philosophy of Science* 77 (2): 201-235.

Joyce, James. [1998] "A nonpragmatic vindication of probabilism". *Philosophy of Science* 65 (4): 575-603.

– [2009] Accuracy and Coherence: Prospects for an Alethic Epistemology of Partial Belief. In Franz Huber & Christoph Schmidt-Petri (eds.), Degrees of Belief. Synthese.

Kelly, Thomas. "How to be an epistemic permissivist". Forthcoming in Matthias Steup and John Turri (eds.) *Contemporary Debates in Epistemology*. Blackwell.

– [2010] "Peer Disagreement and Higher-Order Evidence". In Richard Feldman and Ted Warfield (eds.) *Disagreement*. Oxford: Oxford University Press.

Lewis, David. [1971] "Immodest Inductive Methods". *Philosophy of Science* 38 (1): 54-63.

Maher, Patrick. [2002] "Joyce's Argument for Probabilism". *Philosophy of Science* 69 (1): 73-81

Meacham, Christopher. [ms] "Impermissive Bayesianism".

Moss, Sarah. [2011] Scoring Rules and Epistemic Compromise. *Mind* 120 (480): 1053-1069.

Pettigrew, Richard. [2013] "A New Epistemic Utility Argument for the Principal Principle". *Episteme* 10 (1): 19-35.

– [2012] "Accuracy, Chance, and the Principal Principle". *Philosophical Review* 121 (2): 241-275

Rosen, Gideon. [2001] "Nominalism, Naturalism, Philosophical Relativism". *Philosophical Perspectives* 15.

Schoenfield, Miriam. "Permission to Believe: Why Permissivism Is True and What It Tells Us About Irrelevant Influences on Belief". Forthcoming in *Noûs*.

Teller, Paul. "Learning to Live with Voluntarism". Forthcoming in *Synthese*.

White, Roger. [2007] "Epistemic Permissiveness". *Philosophical Perspectives* 19 (1): 445–459.

Williamson, Timothy. [2000] *Knowledge and its Limits*. Oxford University Press.