**Rational Hypothesis: Inquiry Direction Without Evidence**

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Forthcoming in *Philosophical Topics*

*Special issue “*Beyond Evidence in Epistemology”

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*Abstract*

There are scenarios in which letting one’s own views on the question whether *p* direct one’s inquiry into that question brings about individual and collective epistemic benefits. However, these scenarios are also such that one’s evidence doesn’t support believing one’s own views. So, how to vindicate the epistemic benefits of directing one’s inquiry in such an asymmetric way, without asking one to hold a seemingly irrational doxastic attitude? To answer this question, the paper understands asymmetric inquiry direction in terms of having one’s inquiry be guided by a doxastic attitude, which I call *hypothesis*, that’s governed by the following norm: One’s hypothesis that *p* is rational just in case it is a manifestation of the best feasible way to form a doxastic attitude regarding *p* that promotes the best feasible ways to advance towards settling the question of *p*’s (or of any other suitably related proposition’s) truth-value.

**1 Introduction**

On a somewhat traditional picture, inquirers ought to follow the evidence where it leads. When Jessica Fletcher inquiries into whether the defendant really killed to protect herself from an enraged husband, she does follow the evidence and settles the question by taking the view that it was murder, even though it’d be much easier to agree with everyone else, give credit to the pleasing defendant, and settle the question by concluding that it was self-defense after all. Jessica directs her criminal investigation by following the evidence only, and it appears fair to say that, by so doing, she behaves rationally from an epistemic viewpoint.

However, not all cases of inquiry direction are like Jessica Fletcher’s. Take the case of Sophie, a professional philosopher who has been inquiring into the question of whether there exists a meaningful distinction between a priori and a posteriori justification. Sophie holds the view that such a distinction exists, but she’s aware that the matter is far from settled. Moreover, while many philosophers agree with her, there’s a (roughly equal) number of other philosophers who occupy the opposite camp and hold the controversial view that there isn’t any meaningful distinction between a priori and a posteriori. So, Sophie holds a controversial view about the question of the a priori. How should Sophie direct her further inquiry into that question?

Sophie’s epistemic predicament is less than ideal. And it seems that if she had to follow the evidence at her disposal, she shouldn’t be giving zetetic priority to her belief that such a distinction exists and organise her further inquiry around such a belief. For one thing, it’s unclear to what extent her first-order evidence supports her view. For another, she has countervailing higher-order evidence provided by the existence of widespread peer disagreement on the question. So, if Sophie ought to direct her further inquiry into the question of the a priori by following her (first- and higher-order) evidence, it seems that she ought not to direct her inquiry *asymmetrically*, that is, by giving zetetic priority to her controversial view in her further attempts at settling the question of the a priori.

Nevertheless, closer inspection reveals that letting our own views guide our inquiries into controversial questions might come with individual and collective benefits. Inquiries into controversial questions often involve complex reasoning tasks and different collective bodies of inquirers who push for opposite ways of resolving the question at hand. Now, empirical and probabilistic considerations support the thought that having different inquirers direct their inquiries asymmetrically makes them more efficient reasoners and it affords the means to a better distribution of cognitive labour. This gives rise to the following question: is there a coherent and non-empty notion of epistemic rationality that returns the verdict that asymmetric inquiry direction can be rationally permitted?

This paper aims to answer this question in the affirmative. The main claim of the paper is that rationally asymmetric inquiry direction is to be understood in terms of the existence of a doxastic attitude, what I elsewhere (Palmira 2019, 2020) called the attitude of *hypothesis*, which is governed by the following norm:

RationalH: One’s hypothesis that *p* is rational just in case it is a manifestation of the best feasible way to form a doxastic attitude regarding *p* that promotes the best feasible ways to advance towards settling the question of *p*’s (or of any other suitably related proposition’s) truth-value.

A noteworthy feature of RationalH is that it allows for rationally directing one’s inquiry into the question whether *p* by giving zetetic priority to one’s own view, say the view that *p*, even though *p* is not sufficiently evidentially supported. This suggests that there can be non-evidential epistemic reasons that make it rational for one to direct one’s inquiry in a certain way.

The plan of the paper is as follows. In §2 I present the individual and collective benefits of asymmetric inquiry direction. In §3 I unpack RationalH. In §4 I defend it from several objections. In §5 I show how RationalH captures the epistemic benefits of asymmetric inquiry direction.

**2 The epistemic benefits of asymmetric inquiry direction**

It’s not easy to figure out what view one should have about the a priori. The evidence on the matter is hard to assess and is at times inscrutable. In fact, there is also disagreement about what counts as evidence about this question. Surely the reasoning tasks to perform will be particularly hard, for many different types of considerations in favour or against the existence of a meaningful distinction between the a priori and the a posteriori will have to be carefully weighed against a set of criteria which are also up for discussion. There’s, of course, disagreement about the matter itself – Sophie disagrees with her esteemed colleague John on the a priori. Moreover, while we could be focusing on Sophie’s disagreement with John only, it must be noticed that their disagreement indirectly involves distinct groups of philosophers, to which Sophie and John respectively belong, who hold the same respective views and who have explicitly given arguments for them. And there’s even more: settling the question of whether there exists a meaningful distinction between a priori and a posteriori justification is likely to have ramifications for what Sophie and John (and, indirectly, their respective groups’) believe about other philosophical matters.[[1]](#footnote-1)

All these features reveal that the topic of the a priori is *controversial*. Thus, however good and conscientious Sophie is, she holds a controversial philosophical view. Similar observations can be made about the views we hold toward the moral permissibility of abortion, the duties that the liberal state has toward children, and other controversial matters.

With a clearer description of the type of cases we’ll focus on, we can see that letting individuals such as Sophie and John direct their respective inquiries into the question of the a priori by giving zetetic priority to their preferred ways of settling that question comes with individual and epistemic benefits.

Figuring out whether there exists a meaningful distinction between the a priori and the a posteriori is a complex deliberative matter that requires performing difficult reasoning tasks. The so-called *argumentative theory of reasoning* contends that the evolutionary function of reasoning is to come up with and assess arguments to defend one’s own viewpoint and convince the others.[[2]](#footnote-2) The argumentative theory of reasoning appeals to a massive body of empirical work showing that individuals who consider arguments in favour of their own views reason more selectively and efficiently than individuals who consider arguments in favour of a view they do not hold. Moreover, individuals who hold a certain view *v* will also make more cognitive effort in the attempt to show that the negation of *v* is somehow flawed than individuals who simply consider *v* without subscribing to it. Empirical research also supports the contention that we perform better in conditional reasoning and back-and-forth argumentation when we defend our own position and inferences.[[3]](#footnote-3) The upshot is this: when engaged in a complex reasoning task, we are much better at arguing for our own view than arguing for a view we simply take under consideration. Hence when two individuals engage in such complex reasoning tasks, they’d better approach them by respectively sticking to their own views, as opposed to proceeding with the inquiry into the controversial matter in a more neutral way by giving equal consideration to each view.

The epistemic advantages of asymmetric inquiry direction in cases such as Sophie’s go beyond the individuals’ efficiency in reasoning and argumentation. As has emerged previously, Sophie and John are not the only ones who hold the target controversial theories about the a priori: their one-to-one disagreement is part of a larger disagreement involving distinct groups of philosophers who contribute to the collective enterprise of inquiring into the question of the a priori. Again, several considerations militate in favour of letting those groups stick to their respective views while inquiring into that question.

It is a well-documented empirical fact that cognitively heterogeneous groups are better at performing a range of inquiry-related tasks – such as re-examining the premises of one’s argument,[[4]](#footnote-4) information-processing,[[5]](#footnote-5) and counteracting biased information-seeking[[6]](#footnote-6) – than cognitively homogenous groups. In some cases, adding diversity to the group increases its collective performance more than adding expertise to it[[7]](#footnote-7) and fosters creativity.[[8]](#footnote-8) Importantly, some such studies explicitly test the difference between genuine and artificial cognitive diversity and find that groups featuring genuine differences in attitudes perform better than groups who merely play the devil’s advocate and perform the relevant tasks under mere provisional assumptions.[[9]](#footnote-9)

Alongside findings in the psychology of reasoning, considerations about the division of cognitive labour in scientific communities likewise indicate that having different inquirers pursue inquiries that are guided by different (and contradictory) key theses about matters of controversy comes with certain collective epistemic benefits. Philosophers of science have long acknowledged the existence of a distinctive stage of inquiry, what Laudan (1978) dubs the *context of pursuit*, in which scientists develop their theories before taking them to be the settled and final word on the target topic (see also Šešelja and Straßer 2014, Whitt 1992). Different ways of modeling the functioning of epistemic communities suggest that pursuing different answers to the same hard question would bring about epistemic benefits at the collective level. Famously, Philip Kitcher (1990) and Micheal Strevens (2003) harness formal tools in microeconomic theory, such as individual maximization of expected utility and equilibrium, to argue that given two distinct research projects P1 and P2 which seek to establish two distinct theories about the same matter, we can give a measure of how to optimally distribute the number of researchers working on P1 and P2 by taking the number of researchers assigned to each project as input and issuing the probability that the project will produce a true conclusion as output. Assuming that P1 and P2 have different likelihoods of success in virtue of the fact that one of the two theories is more likely to be correct than the other, Kitcher and Strevens argue that if we assigned all researchers to the project that is more likely to succeed we won’t achieve the optimal distribution of cognitive labour. The basic idea, informally put, is that the more researchers join the more likely-to-succeed project, the less their individual impact on the project’s likelihood to succeed. Therefore, insofar as scientists share the rewards and credit of a successful research project, even if one is more likely to succeed one researcher also has to share the rewards and credit with more researchers. So, in order for a researcher to maximise their contribution to increasing a project’s likelihood to issue a true verdict, the researcher might find themselves in a scenario in which they’d better join the less likely-to-succeed project than the more likely-to-succeed one. So, assuming that joining a given research project to pursue a given theory betrays the researcher’s doxastic commitment to that theory, the Kitcher-Strevens argument allows us to conclude that researchers will have an incentive to hold different views and engage in different inquiries with less probability of success but to which they will contribute more. The Kitcher-Strevens argument purports to show that the scientists’ self-interest in promoting their careers and getting credit and rewards will maximise the whole community’s probability of getting it right. Yet, it has also been suggested (Fleisher 2018) that the Kitcher-Strevens argument can be modified to make room for the idea that inquirers who are moved by epistemic motivations only can also contribute to structuring their epistemic community in an optimal way.

Kitcher-Strevens’s argument relies on an analytical model of the division of cognitive labour. However, in recent times simulation models of the functioning of epistemic communities have started to gain prominence. An influential model of epistemic communities, in terms of agent-based simulation models, has been offered by Kevin Zollman (2007, 2010). Zollman argues for the view that successful scientific inquiry involves what he calls “transient diversity”, namely a process whereby a certain scientific community takes up the same problem by exploring different theories in parallel for some time before reaching a consensus view. Lu Hong and Scott Page (Hong and Page 2001, 2004) have offered a theorem and a simulation model that purport to show that, cognitively heterogeneous groups, namely groups that display diversity across cognitive resources, beliefs, and heuristics whereby to solve a given problem, can outperform homogeneous groups constituted by experts in taking up a certain problem (see also Weisberg and Muldoon 2009). Recent work on the *diversity trumps ability* theorem, as well as on the agent-based simulation offered by Hong and Page clarifies the scope of this thesis: while homogeneous groups constituted by experts are epistemically better off than heterogeneous groups when the available cognitive resources are limited and when the problem is moderately difficult, in the sense of requiring only a few different expert heuristics, heterogeneous groups will have a better epistemic shot than homogeneous groups at solving a complex problem, requiring multiple component solutions and different cognitive resources and when the size of the group is large (see Grim *et al.* 2019, Reijula and Kuorikoski 2021, Singer 2019).

The general take-home message is this: asymmetric inquiry direction about controversial matters brings about several individual and collective epistemic benefits. But the bad news come once we try to specify how to understand the very notion of asymmetric inquiry direction.

Sophie holds the view that there exists a meaningful distinction between a priori and a posteriori justification. So, she directs her inquiry into the question of the a priori asymmetrically if she directs her zetetic efforts towards settling the question of *p*’s truth-value in the affirmative, as opposed to in the negative. This suggests that there’s a doxastic attitude towards *p*’s truth that guides Sophie’s further inquiry, namely the attitude she is disposed to deploy in her future attempts to resolve the question of the a priori in a given way, i.e. by answering that there exists a meaningful distinction between a priori and a posteriori justification. But which type of doxastic attitude towards *p* is such that we are disposed to use *p* in further reasoning and inquiry?

The natural answer is: belief. That is, the natural thought here is that the individual and collective epistemic benefits of asymmetric inquiry direction would make it rational for Sophie and John to *believe* that there is / there is not a meaningful distinction between a priori and a posteriori justification, respectively. This natural thought, however, faces an important worry: cases in which asymmetric inquiry direction brings about the epistemic benefits just examined are often cases in which individuals are required to go against what their evidence supports.

Mercier and Sperber (2017) argue that the argumentative function of reasoning is fulfilled, amongst others, by a number of familiar patterns of reasoning, such as confirmation bias, biased assimilation, and motivated reasoning. Such patterns of reasoning are familiar because of their epistemic viciousness, since they make us increase our confidence in what we believe in the face of defeating evidence,[[10]](#footnote-10) and rationalise beliefs in clearly false propositions.[[11]](#footnote-11) A charge of irrationality seems indeed appropriate towards individuals who end up having such beliefs. Furthermore, even experts end up having long-term and widespread disagreements about controversial matters: John’s disagreement with Sophie provides Sophie with higher-order evidence that her belief about the a priori is not an appropriate response to the evidence that bears on that question, and vice versa (see Christensen 2007, 2010). So, it seems that both John and Sophie should decrease their respective degrees of confidence in their views and take a more cautious doxastic attitude towards them.

The foregoing gives us reason to think that, in many cases, ensuring the individual and collective benefits of diversity in how to pursue an inquiry into a controversial question comes at the expense of falling short of following one’s (first- and higher-order) evidence. And yet, one of the central tenets in epistemology is the family of views that go under the name of *Evidentialism*, which says that the rationality of one’s doxastic states is solely determined by the support given by one’s possessed evidence (e.g. Adler 2002, Clifford 1887, Conee and Feldman 2004, Shah and Velleman 2005, Wedgwood 2007, Williamson 2000 for different ways of unpacking the core Evidentialist thesis). This leaves us in a puzzling predicament: how to vindicate the epistemic benefits of diverse and asymmetric inquiry direction about controversial matters without asking individuals to hold seemingly irrational doxastic attitudes?

As a first step towards a way out of this puzzle, and following a recent strand of thought in the peer disagreement literature,[[12]](#footnote-12) various authors have argued for the existence of a novel type of doxastic attitude that we can hold towards a propositional content *p* that differs from both full and partial belief. I have myself (see Palmira 2019, 2020, forthcoming) developed a specific account of such an attitude, which I call “hypothesis”: one’s hypothesis that *p* is the attitude whereby one retains one’s cognitive inclination or leaning towards taking the question of *p*’s truth-value to be answered in the affirmative, for the sake of using *p* as a premise that directs one’s further inquiry into the question whether *p*. This suggests that one’s hypothesis that *p* is not – unlike belief (see Friedman 2019b) – a question-settling attitude but rather a *provisional* one (see Palmira forthcoming for more on provisional attitudes), in that it’s the attitude whereby one takes the affirmative answer to the question of *p*’s truth-value to be worth defending and spending zetetic resources on. In this sense, one’s hypothesis that *p* is an inquiry-directing asymmetric attitude towards *p*.

We could start quibbling over the precise characterisation of the dispositional profile of the target inquiry-directing asymmetric attitude.[[13]](#footnote-13) But this would be a distraction from the main task ahead of us. Without giving a full-fledged characterisation of the epistemic norm that governs the rationality of hypothesis, the mere acknowledgment of the existence of such an attitude will leave us with an unprincipled and seemingly *ad hoc* vindication of the rationality of asymmetric inquiry direction. So, the main task is to offer an account of the normative profile of the target attitude that returns the verdict that asymmetric inquiry direction can be rationally permitted.

**3 The rationality of hypothesis**

This section is devoted to unpacking:

RationalH: One’s hypothesis that *p* is rational just in case it is a manifestation of the best feasible way to form a doxastic attitude regarding *p* that promotes the best feasible ways to advance towards settling the question of *p*’s (or of any other suitably related proposition’s) truth-value.

RationalH is explanatory in a right-to-left direction and should therefore be regarded as a claim about what determines the rational status of one’s hypothesis that *p*. The term “rational” will be treated here both as synonymous with “justification” and as picking out the deontological notion of permission. RationalH is pitched at the level of what is often called *ex post* or *doxastic* rationality, which must be distinguished from what is often called *ex ante* or *propositional* rationality. The ex anterational status of an attitude φ towards *p* concerns the rationality status of φ-ing in situations where one does not φ. By contrast, the ex post rational status of an attitude φ towards *p* concerns the rationality status of φ-ing in situations where one actually φ-es. Taking inspiration from Goldman’s (1979: 345) understanding of ex ante justification in terms of ex post justification, we can extract from RationalH a definition of an ex ante rational hypothesis that *p* as follows: it is rational for one to hypothesise that *p* if and only if the best feasible way to form a doxastic attitude towards *p* that promotes the best feasible ways to advance towards settling the question of *p*’s truth-value is available to one in such a way that, if one hypothesized that *p* at *t*, one would be rational in holding a hypothesis that *p* at time t+n. There is debate about whether ex ante rationality is in some sense prior to or more final than ex post rationality or vice versa, but entering that debate here would lead us too far afield.. First, the debate focuses on rationality as a property of beliefs vs. rationality as a property of propositions,[[14]](#footnote-14) but it’s unclear that whatever we say about rational belief carries over to rational hypothesis. Before investigating this issue, however, we must ensure that there exists an epistemologically interesting, coherent, and non-empty notion of rational hypothesis. The aim of this paper is precisely to develop such a notion. Second, it’s seldom clear what we mean when we talk about “priority”, and it might well be the case that distinct priority relations take different orders of priority (see Melis 2018).

As the use of promotion makes clear, RationalH is a consequentialist theory of rational hypothesis. As for the promotion relation at the heart of RationalH, I shall frequently use the locution “bringing about” to capture the idea that one’s attitude of hypothesis that *p* promotes ways to advance towards settling the question of the hypothesised *p*’s truth-value. One typically, although not necessarily, holds an attitude of hypothesis when one is inquiring into a certain question. It is, therefore, helpful to consider question-settling in terms of the state of affairs that settles inquiry. I will operate under the assumption that knowledge is the final and question-settling epistemic value (See Kelp 2021, Littlejohn 2018 and Williamson 2000 for defense), although philosophers who take truth (or, more generally, accuracy) to be the final epistemic value should feel free to feed their preferred account into , RationalH.

I shall here understand *ways to advance towards settling the question of p’s truth-value* to be dispositions and individuate them by their manifestations. Given that I take knowledge to be the question-settling state of affairs, our focus will be on dispositions that allow us to advance towards knowledge. I shall call them “knowledge-advancing” dispositions. A disposition is knowledge-advancing in virtue of its link to another item that promotes knowledge more directly. While I shall not presently offer an exhaustive list of knowledge-advancing dispositions, the following dispositions will definitely be on the list: gathering and assessing evidence, engaging in individual and/or collective deliberation about the target matter and reopening the question. Gathering and assessing evidence about *p* are knowledge-advancing with respect to *p* since evidence indicates the truth of a proposition, and the truth-indication relation between evidence and *p* promotes knowledge that *p*. Importantly, manifesting the relevant dispositions is the kind of thing that tends to promote knowledge-advancing dispositions, where this can be understood either as the claim that the attitude mostly brings about knowledge-advancing dispositions or as the claim that the attitude brings about a high ratio of knowledge-advancing to non-knowledge-advancing dispositions. So, while on occasion one’s hypothesis that *p* may not as a matter of fact give rise to knowledge-advancing this positions, what matters is that it tends to bring them about.

RationalH has it that the rationality of hypothesis is a function of events both upstream and downstream from the target attitude. Not only the agent is required to have hypotheses that trigger the manifestations of knowledge-advancing dispositions, but they are also required to hypothesise answers in such a way that not too easily would they have formed doxastic attitudes that don’t lead to the manifestation of knowledge-advancing dispositions. The thought here is this: for one, one’s hypothesis that *p* is a forward-looking attitude whereby one directs one’s zetetic efforts to settle the question of *p*’s truth-value in the affirmative. So, if taking such an attitude failed to put us on a path towards settling the question whether *p* there would be little to commend it. For another, if I end up forming a hypothesis that promotes the best feasible knowledge-advancing dispositions by mere luck, then it seems my responsibility for taking that attitude is undermined and I don’t really deserve to be credited with competent inquiry direction.[[15]](#footnote-15) To appreciate the point, suppose that Lucy and Luke are members of different communities inquiring into the question whether *p*. Lucy hypothesises *p* whereas Luke ends up hypothesising not-*p*. Suppose that for Lucy’s and Luke’s these are in fact the attitudes that best promote knowledge of the answer to the question whether *p*. However, Luke leans towards not-*p* on the basis of how pretty the graphs are in the papers taking up the question whether *p*, whereas Lucy takes *p* to be the answer worth defending because she is in general sensitive to the fact that *p* has something epistemically to go for it as an answer to the question whether *p*. Surely, Lucy’s and Luke’s respective hypotheses deserve to be assessed differently from an epistemic viewpoint, even though they both end up taking the attitudes that best promote knowledge of the answer to the question they’re inquiring into. Now, the disposition to select answers based on graph aesthetics is a crummy one from the perspective of promoting knowledge. This suggests that Luke’s hypothesis that not-*p* fails to be competent, whereas Lucy’s hypothesis that *p* is the manifestation of a competent disposition to select answers in inquiry – Lucy hypothesises propositions only when such hypotheses tend, as best feasibly as they can, to bring about progress towards knowing the answers to the questions under investigation.[[16]](#footnote-16)

Both types of upstream and downstream dispositions are restricted to the “best feasible” dispositions. To explain what I mean by this, I will largely borrow from Maria Lasonen-Aarnio’s dispositional evaluative framework she uses to define her notion of *reasonable belief* (Lasonen-Aarnio 2021, forthcoming).

To determine what the best dispositions are, we should be looking at how their manifestations promote knowledge across relevant counterfactual cases. Although RationalH speaks of the best way*s* to advance towards a state of knowledge regarding *p*, and although it is realistic to think that a hypothesis that *p* will trigger more than one single knowledge-advancing disposition, I shall here simplify the discussion and say that only one such knowledge-advancing disposition is triggered by an attitude of hypothesis. The counterfactual cases we will be looking at for the evaluation of a knowledge-advancing disposition will vary depending on the situation. However, following Lasonen-Aarnio (2021), I shall consider these cases as normal instances of the contextually determined type of situation one is in. The idea, then, is that once the type of situation one is in is contextually fixed, we focus on two types of dispositions: on the one hand, the disposition to form a hypothesis towards a certain answer to the question under examination, i.e. that there are beers in the house; on the other hand, the knowledge-advancing disposition, e.g. the disposition to gather evidence.

To determine whether a certain disposition Fx is the best feasible way to form a doxastic attitude regarding *p* that promotes the best feasible ways to advance towards settling the question of *p*’s truth-value, we will compare cases in which Fx outputs a hypothesis that *p* with the manifestations of feasible alternative dispositions, i.e. dispositions that would manifest as relevant doxastic attitudes in one’s situation such as suspending judgement as to whether *p*, having the hypothesis that not-*p*, across the same cases: if Fx outputs attitudes that promote the best feasible ways advance towards knowing the answer to the question of *p*’s truth-value in a better way than the manifestations of other feasible alternative dispositions, then Fx is the best feasible way to form an attitude that makes us advance towards knowing the answer to the question of *p*’s truth-value. To determine whether a certain disposition Ax is the best feasible knowledge-advancing disposition, we will look at how its manifestations across relevant counterfactual cases make us advance towards knowing the answer to a question compared to the manifestations of feasible alternative dispositions across the same cases: if Ax’s manifestations across relevant counterfactual cases put us in a better position to know the answer to the question of *p*’s truth-value than the manifestations of other feasible alternative dispositions, then Ax is the best feasible way to advance towards settling the question of *p*’s truth-value.

Onto the notion of feasibility that restricts the relevant dispositions. The intuitive thought behind adding a feasibility restriction to both upstream and downstream dispositions is that inquiry direction is something that *we*, human beings endowed with a certain cognitive makeup who inquire into questions by both being situated in a certain context and belonging to certain communities, do. Lasonen-Aarnio (2021: 102-3) offers the example of climbers, who are taught to check their harnesses and knots every time before relying on them. Climbers would not be able to double-check their harnesses and knots only when an error has been made since, due to their cognitive limitations, features of the situation such as altitude and fatigue would create unfavorable conditions that compromise the climbers’ ability to detect errors only when they are made. The same holds for what’s feasible for us to do in inquiry. Here are some additional examples.

Our visual discriminatory abilities are so limited that our visual appearances can fail to discriminate between various options. For instance, if my friends cleverly disguise mules as zebras, it won’t be feasible for me to advance towards knowing whether the animals in front of me are zebras or mules just by looking, even though I’ve been around zebras and mules many times. Our cognitive makeup also affects the way in which we face complex reasoning tasks. As has emerged previously, several studies indicate that when we engage in complex reasoning tasks, we perform much better when we defend our own views as opposed to simply arguing the point from a neutral perspective. Unfortunately, though, the argumentative function of reasoning is often fulfilled by epistemically vicious patterns of reasoning such as confirmation bias, biased assimilation, and motivated reasoning. This shows that although the ideally best thing to do would be to argue efficiently for our own views without falling prey to such emotionally loaded patterns of reasoning that often lead us to ignore certain portions of the evidence to give more weight to others, it is not feasible for us to do so. Thus, sometimes the best feasible way to approach complex reasoning tasks is to stick to our own views and reason with them no matter what, even though some confirmation bias or motivated reasoning may be involved. I will come back to this point below.

While Lasonen-Aarnio is mostly concerned with what’s feasible for us to do given our cognitive and environmental bounds, cases such as Sophie’s reveal that we are often members of groups or communities pursuing the collective enterprise of figuring out certain questions. This very fact imposes additional constraints, of a *social* nature, on the feasibility of the target dispositions. Let me illustrate this point with the aid of the Kitcher-Strevens argument for the division of cognitive labour. The Kitcher-Strevents argument has it that, in order to reach the optimal distribution of the number of researchers working on distinct projects, each researcher has to maximise their marginal contribution, where such a marginal contribution is a function of how the probability that the project will succeed increases when each researcher joins the project. However, each additional researcher adds less probability than the last one and, at some point, the project becomes saturated. Once the project gets saturated, it is no longer feasible for me to maximise my marginal contribution by joining it: so, the best feasible thing to do for me would be to join a different project, even though the probability of success of the alternative project may be smaller than the probability of success of the saturated one. Thus, if I’m disposed to join a project and maximise my impact on it – a disposition that we can plausibly regard as knowledge-advancing in light of the increase in the probability of success generated by my joining the project – it’s not feasible for me to manifest such a disposition by joining a saturated research project.

Importantly, considerations about what’s feasible for us to do in inquiry help us clarify the idea that a (competently formed) hypothesis that *p* is rational if it brings about the best feasible way to advance towards settling a question that is suitably related to the question of *p*’s truth-value. Begin with the following humdrum observation: some of the questions we take up in inquiry are related in such a way that investigating question Q1 might help us advance towards knowing the answer to a different question Q2. Rudy’s hypothesis that there exists a meaningful distinction between a priori and a posteriori justification might, quite naturally, bring about the best feasible way to advance towards settling related philosophical questions, such as whether there exists a meaningful distinction between analytic and synthetic statements, whether rationalism is a viable metaphilosophical view, whether intuitions are a proper source of warrant. This is so because the reasoning tasks Rudy would have to face are similar, and the methods and zetetic heurstics to gather and assess the evidence on these questions will be largely overlapping. However, Rudy’s hypothesis that there exists a meaningful distinction between a priori and a posteriori justification won’t bring about the best feasible way to advance towards knowing the answer to the question of whether Napoleon made a battlefield mistake on Sunday 18 June 1815. This is so because maintaining one’s cognitive inclination that there exists a meaningful distinction between a priori and a posteriori justification won’t make us more efficient reasoners vis-à-vis the reasoning tasks historians have to face, nor will it help us reach an optimal division of the historian’s cognitive labour. This said, while I believe that there are intuitively clear cases in which what’s feasible for us to do in inquiry tells us whether pursuing a certain answer to Q1 will also bring about progress about Q2, I’m also ready to acknowledge that zetetic feasibility considerations won’t provide a sharp criterion between the category of propositions which are suitably related to the proposition we have a hypothesis about and the category of propositions which are not so related. But our uncertainty about where a certain boundary between two categories lies is yet no reason to think that no distinction between such categories exists.

I’d like to conclude this section by bringing out the structural differences between RationalH on the one hand, and other consequentialist-based theories of rationality, such as Goldman’s process reliabilist theory of epistemic justification (1979) and Lasonen-Aarnio’s theory of reasonable belief (2021, forthcoming), on the other (I will keep using the term “rational” for convenience’s sake). First, both Goldman and Lasonen-Aarnio maintain that the rationality status of a belief is a function of events upstream from the target doxastic state, such as a belief being either the output of a reliable cognitive process (Goldman), or the manifestation of the best feasible alternative dispositions (Lasonen-Aarnio). By contrast, RationalH has it that the rationality status of hypothesis is also a function of events downstream from it, i.e. its promoting the best feasible disposition to advance towards settling the question of the controversially held proposition’s truth-value. This surely is the most striking feature of RationalH. But, on reflection, this is at it should be. Hypothesis is a forward-looking attitude we take towards *p*: we hold an inquiry-directing asymmetric attitude *p* when we take *p* to be the most promising answer to the question of *p*’s truth-value, that is, the answer we take to be worth defending and arguing for by spending time and cognitive efforts on. It's a natural thought that those efforts will be rewarded epistemically only if we do indeed make progress towards settling the question of *p*’s truth-value.

The second, related point is that RationalH is an instance of what we may call *doubly indirect* consequentialism: a hypothesis that *p* *indirectly* promotes knowledge (as well as it feasibly can) in virtue of bringing about the manifestation of a disposition that best promotes knowledge *indirectly* in virtue of being the best feasible knowledge-advancing disposition among relevant candidates. While the double indirectness exhibited by RationalH may strike us as odd, I think that it simply reflects a basic difference between the states of *belief* and *hypothesis*. Hypothesis, unlike belief, is not a question-settling state of mind. Rather, hypothesis is an inquiry-directing attitude, that is an attitude that directs our zetetic efforts towards settling the target question. So, the the doubly-indirect way of promoting knowledge stems from the kind of function that hypothesis plays in our cognitive economy. If the function of a doxastic state tells us what it is for the state to be a good instance of its type, we can say that for a belief that *p* to be good entails it being true or knowledgeable. By contrast, for a hypothesis that *p* to be good entails it helps us advance towards settling one’s inquiry into *p*’s truth-value in a certain way. The function of belief is, therefore, much more tightly linked to knowledge than the function of hypothesis. Thus, it should not come as a surprise that rational belief bears a more direct link to the promoted value than rational hypothesis.

This completes my presentation of RationalH. In the next section, I turn to address some objections.

**3 Defending RationalH**

I begin with the well-known worry that epistemic consequentialism licenses intuitively suspicious epistemic trade-offs. Consider, for example, Roderick Firth’s (1978) grant seeking scientist case.[[17]](#footnote-17) Suppose that I am an atheist scientist applying for a grant from a religious organisation. Having considered the matter of God’s existence carefully, I conclude that God doesn’t exist. I also, however, realise that my only chance of being awarded the grant is to believe in God’s existence. Finally, I know that, were I to receive the grant, I would use it to conduct research which will lead me to form many true beliefs about a variety of significant topics my research project. If I end up revising my stance about God’s existence and come to believe that God exists, such a revision would be intuitively irrational. It seems, therefore, epistemically irrational to be bribed into believing that God exists with the promise of future true beliefs. And yet, since consequentialism maintains that what makes a rational belief rational is that it directly or indirectly promotes or conduces towards true (or knowledgeable) beliefs, consequentialism seems bound to state that revising my belief in God’s existence is rational.

The possibility of trade-offs stems from the core consequentialist idea that norms, at the very bottom, are concerned with what promotes the final value. RationalH subscribes to that thought, and it does license a limited amount of epistemic trade-offs. The amount of trade-offs licensed is restricted by two features: first, as has emerged previously, one’s hypothesis towards the existence of the a priori-a posteriori distinction might bring about the best feasible way to advance towards settling the question of the existence of a distinction between analytic and synthetic statements but not about the question of what Napoleon did wrong (if anything) at Waterloo. Secondly, one’s attitude has to be formed competently, in the sense that it has to be the output of a disposition to form attitudes that lead to the manifestation of knowledge-advancing dispositions. This clarified, my reply to the trade-off worry is this: that’s a potential worry for a consequentialist account of rational belief but not for a consequentialist account of rational hypothesis. The function of belief is to represent what the world is like, and one believes that *p* when one regards *p* as true for the sake of getting *p*’s truth-value right. By contrast, the function of hypothesis is not to represent what the world is like. Rather, one holds such an attitude towards *p* when one regards *p* as true for the sake of moving towards settling the question of *p*’s truth-value in the affirmative. So, trade-offs are bad in the case of belief precisely because they can disconnect us from the world in such a way as to lead to widespread cognitive malfunction. However, hypothesis is a merely provisional attitude we take towards a certain proposition, and so is less likely to lead us astray this way if it departs from the evidence.[[18]](#footnote-18)

The second worry about epistemic consequentialism I’ll consider has been made popular by Nomy Arpaly (2017).[[19]](#footnote-19) The worry, stated at the general level, is this: if a certain ϕ-ing promotes the final value that the consequentialist appeals to in order to ground epistemic norms, then that automatically generates an epistemic norm to ϕ, thereby conflating purely instrumental and epistemic rationality. To illustrate. Suppose suppose that eating a sandwich promotes knowledge in the long run in that it leads to better intellectual performance with respect to discovering the answer whether *p* and further suppose that, if one hypothesises *p*,one will end up pursuing one’s inquiry near a good sandwich shop. Is one’s hypothesis that *p* in such a case epistemically rational? Although it’s pragmatically (pro tanto) rational for one to hypothesise in this way, intuitively this is not the case. While some have resisted the intuitive verdict,[[20]](#footnote-20) I shall here side with it and show that it doesn’t jeopardise RationalH.

The worry presupposes that eating sandwiches really is *the best* way to advance toward knowing the answers to controversial questions about morality, politics and philosophy. While this may be questioned, I’m willing to grant such a presupposition and note, together with Kelp (2021: Ch. 1 and 2), that inquiry is a critical domain, that is a domain constituted by a set of interrelated activities, methods, and procedures whose assessment is organised around the domain’s central value. This suggests that there are distinctive ways of advancing towards knowing the answers to the questions we’re inquiring into, i.e. the ways that are part of the interrelated zetetic activities, methods, and procedures that are distinctive of the critical domain of inquiry (e.g. running an experiment in scientific inquiries, coming up with a formal proof of a theorem in mathematic inquiries, and so on). So, while eating sandwiches may be the best way to advance toward knowing the answers to controversial questions about morality, politics and philosophy, that’s not something distinctive of moral, political and philosophical inquiry, as it is a way to advance towards the goal of other activities as well. So, what matters for proper epistemic evaluation are the best feasible ways to advance towards settling the question given the target domain of inquiry to which that question belongs (see also Palmira 2023). So, inquirers may well have an instrumental reason to eat sandwiches. However, the fact that eating a sandwich is the best way to promote knowledge doesn’t constitute an epistemic reason in favour of eating sandwiches, for epistemic norms govern those eventualities that are distinctive of the critical domain of inquiry.

Having dispelled some initial doubts about the consequentialist nature of RationalH, I now wish to consider some potential objections to its more specific content. The first criticism I want to consider concerns the relationship between evidence and rational hypothesis. There’s a long epistemological tradition maintaining that the rationality of one’s doxastic attitudes is determined by the support provided by one’s possessed evidence. This is the core tenet of different varieties of Evidentialism. According to RationalH, however, it is neither necessary nor sufficient for the rationality of one’s hypothesis that *p* that such an attitude be supported to a certain degree by one’s evidence. In the previous section, we have seen that there are cases where the best feasible way to advance toward settling an inquiry involving complex deliberative tasks is to ignore portions of one’s evidence in order to be more proficient reasoners. There are also cases where it is rational to hypothesise *p* and join a research project that seeks to establish *p*’s truth even though not-*p* is more likely to be true based on one’s evidence.[[21]](#footnote-21) This might strike many epistemologists as surprising because evidence-responsiveness is widely thought to be, if not required, at least sufficient for one’s doxastic state to be epistemically rational.

On reflection, it is unclear why we should expect that *rational* *hypothesis* depend on one’s evidence. The common thread among the authors I quoted above is that positive evidential support is required only for *belief* (we may also add that negative evidential support is required for disbelief and the absence of positive and negative evidential support is required for suspended judgement). Of course, it is not surprising that evidentialists have not explicitly formulated their view by considering the attitude of hypothesis. For this reason, couldn’t they make room for a notion of evidential support tailored to rational hypothesis? I submit that this must be answered in the negative because the arguments supporting that belief is subject to an evidential norm do not carry over to hypothesis. As far as I can tell, most of the arguments in favour of traditional Evidentialism appeal to certain features of belief. Jonathan Adler, for example, has defended the extreme view that a belief that is not grounded on evidence is not a belief.[[22]](#footnote-22) Authors such as Shah, Velleman, and Wedgwood have variously argued that Evidentialism falls out of the aim or proper function of belief.[[23]](#footnote-23) But one need not make claims about the nature of belief to defend Evidentialism. For instance, a recent epistemological trend appealing to the centrality of knowledge in our epistemological theorizing appeals to both the E = K equation - evidence is equal to knowledge - and to the idea that rationality (or epistemic justification) is knowledge.[[24]](#footnote-24) Since knowledge requires belief – or, to put it in the knowledge-first lingo, “belief is a botched knowledge” (Williamson 2000: 446) – this kind of Evidentialism doesn’t carry over to hypothesis. So, the most prominent arguments in favour of Evidentialism about rational belief won’t be arguments for Evidentialism about rational hypothesis.

The fact that evidence doesn’t constrain rational hypothesis may give rise to a different complaint: since evidentially unsupported hypotheses can count as rational, RationalH seems to consider far too many hypotheses as rational. In other words, the complaint is that RationalH falls short of delivering a sufficiently robust notion of rational hypothesis on account of its emptiness. This complaint, however, is misplaced. In a complex deliberative scenario where the best feasible way to approach the reasoning task is to reason with the proposition *p* one leans towards irrespective of how it has been formed, it’s irrational for one to hypothesise a distinct proposition *q* because doing so would prevent one from bringing about the best feasible way to advance towards knowing the answer to the reasoning problem one is facing. An analogous point holds for the researcher considering which research project to join; it’s irrational for the researcher to hypothesise the thesis of a saturated project because it’s guaranteed that the likelihood of its success won’t change and the researcher’s inquiring efforts would be more epistemically beneficial if they worked on a distinct project with a distinct central thesis to hypothesise.

One might concede that RationalH draws a line between rational and irrational hypotheses but press the point that the line isn’t drawn correctly. The thought is this: sometimes, the best feasible way for us to reason efficiently is to reason with our own views, which may be held on the grounds of patterns of reasoning such as confirmation bias or motivated reasoning. According to RationalH those attitudes count as rational, but this is the wrong prediction: confirmation bias and motivated reasoning are epistemically bad methods of reasoning and we should rule their doxastic outputs as impermissible. As I see things, the objection rests on two premises: first, competent belief-formation requires that we don’t form beliefs on the grounds of confirmation bias and motivated reasoning; the conditions for competent formation of the attitude of hypothesis are identical to the conditions for competent belief-formation. I’m happy to grant the first premise, but I contend that we should resist the second. As has already emerged previously, hypothesis plays a different role than belief in our cognitive economy: holding that attitude towards *p* amounts to being inclined towards taking the question of *p*’s truth-value to be answered in the affirmative, for the sake of using *p* as a premise that directs one’s further inquiry into the question whether *p* so as to defend and argue for settling the question whether *p* in the affirmative. This suggests that competently forming a hypothesis that *p* involves being disposed to form attitudes towards the answers that we will in fact be able to defend and reason with efficiently because this would give those answers their (best) day in (the zetetic) court.

The final point I shall make concerning the interplay between evidence and hypothesis is that it is misleading to say that RationalH entirely underplays the epistemic significance of evidence. The first example of a knowledge-advancing disposition that comes to mind is the disposition to gather evidence. There will, therefore, be many cases where one’s hypothesis that *p* counts as rational precisely on account of its promoting such evidence-based ways of advancing towards knowing the answer of *p*’s truth-value. Moreover, Mercier and Sperber (2011) and Trouche et al. (2014, 2016) report that in deliberative contexts of cognitive diversity individuals exhibit a sensitivity towards particularly compelling counterarguments, something which goes some way towards mitigating the individual viciousness of confirmation bias and motivated reasoning. This shows that allowing individuals to hold distinct attitudes of hypothesis in such scenarios brings sensitivity to the evidence provided by compelling counterarguments. Although it doesn’t constrain hypothesis, evidence still matters in our enterprises to resolve the questions we take up in our systematic inquiries.

This completes my defence of RationalH.

**5 Vindicating the rationality of asymmetric inquiry direction**

Equipped with RationalH, let us come back to Sophie’s and think of the manifestations of the disposition to hypothesise that there is / there is not a meaningful distinction between a priori and a posteriori justification across relevant counterfactual cases: if Sophie engaged in the complex reasoning tasks involved in the examination of the question of the a priori by reasoning with her own view on the matter, she would argue better than if she embraced a neutral viewpoint on the target question. That is to say, Sophie would make more cognitive effort and be more efficient in back-and-forth argumentation if she approached the tasks she has to face – say, checking the premises of a certain argument in favour of scepticism about the a priori, evaluating such a sceptical stance abductively, gathering further evidence which may help them clarify some as yet little examined aspect of that position – by reasoning conditionally on her view. So, by having an attitude of hypothesis towards her view about the a priori, Sophie does bring about the best feasible knowledge-advancing dispositions that are linked to reasoning and argumentation. Moreover, once Sophie and John have hypotheses towards their views, they – together with colleagues of theirs who have the same views about that matter – will likewise contribute to making that part of the philosophical community that focuses on the question of the a priori more heterogeneous than the community that would result from the adoption of a more cautious attitude towards this controversial matter. The empirical data surveyed in §2 also indicate that the philosophical community would benefit epistemically from cognitive heterogeneity in several ways: for instance, cognitively heterogeneous groups are better than cognitively homogenous groups at information-processing, counteracting biased information-seeking and re-examining the premises of the target arguments. Moreover, given the complexity of the problem at hand, and given the fact that philosophers defending such different views would marshal different cognitive resources and heuristics in order to find a solution to the problem of the a priori, this appears to be a case in which diversity is also encouraged by agent-based simulation models like the ones used in the diversity can trump ability literature. Finally, Sophie and John will eventually settle the matter of the a priori one way or another, that expert agreement would be more reliable if reached through autonomous thinking than through a decision to achieve consensus on the matter. Thus, holding contradictory hypotheses towards the existence of a meaningful distinction between a priori and a posteriori justification brings about the best socially feasible way to advance towards knowing the answer to the question of the a priori.

The foregoing shows that the best feasible way for Sophie to advance towards knowing the answer to the question of the a priori is by holding an attitude of hypothesis towards her answer to the question. Adopting RationalH, we thus have that Sophie is rationally permitted to hypothesise that there exists a meaningful distinction between a priori and a posteriori justification. Importantly, rational hypothesis is not constrained by evidence: so, we can concede that Sophie’s view about the a priori is not sufficiently evidentially supported without *ipso facto* saying that holding such a controversial view is epistemically irrational. Thus, RationalH ensures that we can reap the individual and collective epistemic benefits of holding our own views about controversial matters without being charged with epistemic irrationality.

Isn’t this vindication of the rationality of asymmetric inquiry direction underwhelming? More specifically, if there’s a puzzle about how to justify seemingly irrational views that contribute to inquiry, justifying them by saying that they are rational when they contribute to inquiry seems a bit circular. I don’t think that there’s any circularity at play here though. The foregoing doesn’t just offer a vindication of the thought that having distinct attitudes of hypothesis is epistemically beneficial to inquiry. Rather, my arguments purport to show that there’s a principled, coherent, and non-empty notion of epistemic rationality that makes it possible to direct our inquiries asymmetrically in a permissible way.

**6 Conclusions**

I have argued that RationalH vindicates the thought that asymmetric inquiry-direction without evidence is not only possible, but also at times epistemically permissible. The picture of the rationality of hypothesis I have sketched still leaves open some questions, which would have to be taken up in future works. I mention only two here. First, RationalH has to be compared and contrasted with other views which may offer a vindication of rational asymmetric inquiry direction offered in Buchak (2021) and Fleisher (2018, 2021 2023). Secondly, RationalH defines a non-ideal notion of epistemic rationality, where such non-ideality stems from the restrictions that RationalH imposes on the best feasible upstream and downstream dispositions in light of the cognitive and social bounds we have qua inquirers. Carr (2022) lambastes non-ideal epistemology, maintaining that only ideal epistemic evaluations are normatively robust, i.e. neither conventional nor context-sensitive. Thorstad (2023) pushes back, arguing that there’s room for a notion of bounded epistemic rationality rooted in cognitive science which escapes the threat of conventionality and context-sensitivity. It should be clarified whether RationalH falls within the scope of Thorstad’s defence of bounded epistemic rationality, or else if more needs to be said to make sure that RationalH delivers a robust kind of epistemic evaluation.

**Acknowledgements.**

I am grateful to Ignasi Gil, Javier González de Prado, Jesús Navarro, and Sophie Keeling for their comments on a previous draft. Many thanks also to two anonymous referees for their constructive criticisms and helpful suggestions on the first submitted version of the paper. Work on this article has received funding from the Spanish Government’s Ministerio de Ciencia, Innovación y Universidades under grant agreements RYC2018-024624-I and PID-2021-123938NB-100.

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1. See Frances (2010) and Goldberg (2013, 2015) for more on the complexity and controversiality of philosophical disagreement. [↑](#footnote-ref-1)
2. Mercier and Sperber (2011, 2017) are the best-known advocates of such a theory. [↑](#footnote-ref-2)
3. See, respectively, Moshman and Geli (1998) and Trouche et al. (2014). [↑](#footnote-ref-3)
4. Nemeth (1986). [↑](#footnote-ref-4)
5. Nemeth et al. (2001). [↑](#footnote-ref-5)
6. Schulz-Hardt et al. (2002). [↑](#footnote-ref-6)
7. James et al. (2015). [↑](#footnote-ref-7)
8. Nemeth (1995). [↑](#footnote-ref-8)
9. Nemeth et al (2001), Schulz-Hardt et al. (2002). [↑](#footnote-ref-9)
10. See Nyhan and Reifler (2010). [↑](#footnote-ref-10)
11. See Kahan et al. (2017). [↑](#footnote-ref-11)
12. See Barnett (2019), Buchak (2021), Fleisher (2018, 2021, 2023), Goldberg (2013), Palmira (2019, 2020). [↑](#footnote-ref-12)
13. Still, it’s important to note that hypothesis isn’t identical to acceptance, namely the attitude of taking *p* as true which is under S’s voluntary control, akin to a sort of decision of taking *p* as true in their reasoning irrespective of one’s credal feelings (see e.g. Cohen 1992). For one, hypothesis isn’t voluntary. For another, our target attitude does come with a cognitive inclination or credal feeling towards *p*’s truth such that one cannot have that attitude without leaning towards *p*’s truth. By contrast, one can accept that *p* while leaning towards *p*’s falsity. This would make acceptance too thin to bring about the psychological and social advantages of cognitive diversity. [↑](#footnote-ref-13)
14. See Rosenkranz (2021: Chapter 6), however, for an account of doxastic justification that does not entail belief. [↑](#footnote-ref-14)
15. I’m grateful to an anonymous referee for this journal for making me appreciate this point. The example that follows is theirs. [↑](#footnote-ref-15)
16. While I subscribe to the view that competent attitude-formation is required in order to have rational attitudes, this view is by no means sacrosanct. Take the case of belief: recent externalist accounts (see Lasonen-Aarnio 2021, forthcoming, Weatherson 2019) maintain that the normative profile of one’s beliefs is solely determined by their objective and external features determining their success, e.g. the fact that they amount to knowledge, even though one’s beliefs are the output of evaluatively bad dispositions which would make the agent incompetent yet successful on occasion. This brand of externalism may acknowledge the existence of rational hypothesis by taking its rationality to be solely determined by the downstream dispositions while, at the same time, taking the best feasible ways to form such attitudes to give rise to mere evaluative standards which aren’t required for normative success. Thanks to Javier González de Prado for discussion of this point. [↑](#footnote-ref-16)
17. See also Berker (2013a) and Littlejohn (2018). [↑](#footnote-ref-17)
18. This line of reasoning, if plausible, also undermines Friedman’s (2019a) related worry about epistemic consequentialism. [↑](#footnote-ref-18)
19. Arpaly credits the worry to Sophie Horowitz. See Fleisher (2018, 2023) and Singer and Aronowitz (2022) for further discussion. [↑](#footnote-ref-19)
20. See Singer and Aronowitz (2022). [↑](#footnote-ref-20)
21. Berker (2013b) maintains that epistemic consequentialism in general has trouble with evidential norms, but I won’t pursue this matter here. [↑](#footnote-ref-21)
22. See Adler (2002). [↑](#footnote-ref-22)
23. See e.g., Shah (2003), Shah and Velleman (2005), Velleman (2000) and Wedgwood (2007). [↑](#footnote-ref-23)
24. See Sutton (2007) and Williamson (2000). I’m here using “rationality” as synonymous with “justification”. [↑](#footnote-ref-24)