



# Can hinge epistemology close the door on epistemic relativism?

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## Abstract

I argue that a standard formulation of hinge epistemology is host to epistemic relativism and show that two leading hinge approaches (Coliva's acceptance account and Pritchard's non-doxastic account) are vulnerable to a form of incommensurability that leads to relativism. Building on both accounts, I introduce a new, minimally epistemic conception of hinges that avoids epistemic relativism and rationally resolves hinge disagreements. According to my proposed account, putative cases of epistemic incommensurability are rationally resolvable: hinges are propositions that are the objects of our belief-like attitudes and are rationally revisable in virtue of our overarching commitment to avoid systematic deception in our epistemic practices.

**Keywords** Hinge epistemology · Relativism · Incommensurability · Hinge disagreement

## 1 Introduction

As a recent trend in epistemological theorizing, hinge epistemology holds that epistemic justification is possible thanks to unjustified and unjustifiable basic assumptions, or hinges, such as that there is an external world or that we are not systematically deceived in our epistemic practices. At the same time, hinge epistemology tries to distance itself from epistemic relativism. The latter is the view that epistemic justification is relative to one's epistemic system such that, given two radically different and competing epistemic systems, there is no neutral, or rational way of determining which one of them is epistemically better. In this paper, I deal with this question: how do we have to conceive of hinges in order to block epistemic relativism? The version of epistemic relativism relevant in this paper comes out of four theses<sup>1</sup>:

<sup>1</sup> This motivation for relativism can be found in Kusch (2013, 2016a) and Carter (2017); see also Baghramian and Coliva (2019, ch. 7). Furthermore, there are different definitions of relativism, as well as different arguments that motivate it [arguments from underdetermination (Barnes and Bloor 1982) and

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*Dependence:* Justification for beliefs is relative to particular epistemic systems.

*Pluralism:* There are radically different epistemic systems.

*Incommensurability:* Given two radically different and competing epistemic systems, there is no rational, system-independent, epistemic norm or method to assess and justify one epistemic system over the other.

*Equal validity:* All epistemic systems are equally valid and are on a par regarding the justification of their basic beliefs and methods.

These theses are considered individually necessary and jointly sufficient to motivate the idea that there are different, exclusive, and incompatible epistemic systems that are equally valid and justified.<sup>2</sup> Importantly, this version of epistemic relativism does not entail that all epistemic systems are equally reliable, or that there are no instrumental (non-epistemic) reasons to justify our practices of belief formation. The relativist rather contends that epistemic norms, understood as the building blocks of an epistemic system and the justifiers of beliefs within it, have relative validity. This, urges the relativist, entails that the justification of an epistemic system is itself non-epistemic and that any given epistemic system is as justified as its competitors which have their own epistemic norms. A denier of epistemic relativism should then show that at least some epistemic norms have non-relative validity and that epistemic systems can be epistemically justified.

Central to this version of relativism is incommensurability: the impossibility of there being an epistemic or rational path to resolve what I call a *hinge disagreement*, in which two parties' dispute about what to believe is rooted in their commitments to different and incompatible grounds. The unavailability of such a path entails that epistemic reasons, that is, considerations in favor of what to believe and what to consider as justified, are insufficient to ground our epistemic practices. Thus, if a theory of epistemic justification makes room for there being rational resolution of hinge disagreements, relativism is unmotivated. If, on the contrary, a theory of justification has the consequence that two parties in a hinge disagreement cannot rationally reach a consensus, then such a theory is, *prima facie*, friendly to relativism. As Duncan Pritchard has pointed out (2011, 2018b, forthcoming), a theory of epistemic justification entails epistemic relativism when it licenses incommensurability. This is particularly relevant when we evaluate whether hinge epistemology leads to relativism, since it is seemingly committed to the possibility of there being epistemic systems with different, and internally valid, epistemic norms.

This version of epistemic relativism has been largely discussed in the context of hinge epistemology. As I shall show in the next section, hinge epistemology *seems* to provide a fertile ground for these four theses to grow. Most hinge epistemologists,

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Footnote 1 (continued)

semantic considerations (MacFarlane 2014; Kölbel 2003)]. In this paper, I will work with a formulation of relativism from incommensurable disagreements as this is a form of relativism that seems most pressing for hinge epistemology.

<sup>2</sup> An exception is Williams (2007), who thinks that Dependence, Pluralism and Equal validity are sufficient for relativism, provided the relativist argues that justifications for epistemic systems are inevitably circular.

however, are reluctant to embrace relativism, even though some epistemologists with relativistic inclinations appeal to hinge epistemology to motivate relativism.<sup>3</sup> I take it that hinge epistemologists' success in blocking epistemic relativism depends on the appropriate account of hinges, such that it can allow for the possibility of there being rational resolution of hinge disagreements. In this paper I am interested in determining the account of hinges that allows us to make room for such a possibility.

Here's the structure of the paper. In Sect. 2, I show how hinge epistemology seems committed to the above four theses of relativism. In Sect. 3, I examine two influential but different accounts of hinges that seek to avoid relativism by denying incommensurability: Coliva's (2015) acceptance and Pritchard's (2015) non-doxastic accounts. I then present some worries that they face when allowing for rational resolution of hinge disagreements. Building upon Pritchard's and Coliva's accounts, in Sect. 4 I elaborate on the characteristics that hinges should have in order to make possible a rational resolution of hinge disagreements. Roughly, while the attitude of belief cannot be directed towards our hinges, there needs to be *some* doxastic attitude that can, i.e., one that is capable of being responsive to rational considerations. Also, hinges should be considered as propositions, that is, our hinge-attitudes should be considered as having a content. And thirdly, hinges should be discriminative enough to rationally favor, in a non-question begging way, one of the disagreeing parties. Before concluding in Sect. 5, I briefly consider how such an account might look like in order to avoid the kind of relativism that emerges from incommensurability.

## 2 Epistemic relativism at the door of hinge epistemology<sup>4</sup>

Hinge epistemology is best conceived as opposed to traditional epistemological foundationalism, since instead of looking for a non-inferential justification of the foundations of knowledge, it starts with the idea that rational evaluation and epistemic justification are limited enterprises. The limits and starting points of justification posed by hinge epistemology are the so-called *hinges*. Although there are different conceptions of hinges,<sup>5</sup> both concerning what they are (propositions, pseudo-propositions, or norms) and the appropriate attitude we have towards them (doxastic or non-doxastic), hinge epistemologists agree in considering them as conceptually prior to our epistemic practices of justification. These propositions are examples of hinges:

I am not the subject of systematic and sustained deception in my beliefs.  
 There is an external world.  
 What has happened before most likely will happen in the future.

<sup>3</sup> See for instance Ashton (2019, forthcoming), Kusch (2013, 2016a, 2017a).

<sup>4</sup> This is a rough exposition of hinge epistemology, but one that suits my purposes of locating the relevant aspects of relativism in connection to hinge epistemology. More thorough expositions can be found in Coliva (2010, 2015, 2016), and Pritchard (2011, 2015, chs. 3–4).

<sup>5</sup> See Coliva (2016).

My cognitive capacities are mostly reliable.  
 The Earth has existed for a very long time.

The following epistemic methods and norms are also examples of hinges, since they determine the role that certain kinds of evidence may have in an epistemic system and epistemic practice:

*Observation*: If one's current experience has observational content  $p$  then, other things being equal (e.g., no presence of defeaters and the assumption that there is an external world), one is *prima facie* rationally justified in believing that  $p$ .<sup>6</sup>

*Induction*: If events of type B regularly follow events of type A, and if one has observed that events of type B regularly follow events of type A, then one is *prima facie* rationally justified in believing that events of type B follow events of type A.<sup>7</sup>

*Modus Ponens*: If A entails B, and one truly believes that A, then one is rationally justified in believing that B.<sup>8</sup>

*Revelation*: One is *prima facie* rationally justified in believing that  $p$ , if  $p$  is stated in the Bible (or in any other epistemic community's preferred holy scripture) as the infallible and revealed word of God.<sup>9</sup>

Those statements, norms, and methods are hinges because they are the conditions of possibility of our practices of doubting and justifying beliefs. In this way, hinge epistemology rules out skeptical doubts about them by holding that they are not susceptible to rational evaluation.<sup>10</sup> This is evident, according to hinge epistemology, once the justification for any given belief in a proposition presupposes at least one, if not several, of the hinges. For instance, justification for our beliefs about physical objects (their location, our perception of them, etc.) is only possible given our background assumption that there are physical objects. Relatedly, doubts about those hinges are not intelligible, since there is no independent ground that can be added in their favor that could be more certain than them. Consider: what could be added in favor of the truth that physical objects exist? It cannot be the fact that there seems to be a hand right in front of me, since for there to be true that there is a hand, it has to be true that physical objects exist. Or consider a justification of the method of Observation. Any attempt to justify the reliability of Observation would make use of the deliverances of the senses; thus, it would be epistemically circular, which not only entails no justification at all, but also that the validity of Observation cannot be established independently of the use of that very same method. The upshot is that

<sup>6</sup> Cf. Coliva (2015, p. 34).

<sup>7</sup> Cf. Coliva (2015, p. 155). Cf. Also Boghossian (2006, p. 67).

<sup>8</sup> Cf. Coliva (2015, p. 177).

<sup>9</sup> Cf. Pritchard (2011, p. 268), Kusch (2017a, b), also Boghossian (2006, p. 69). As it shall be clear below, although Coliva denies that Revelation is a hinge, there is a natural way of interpreting it as a hinge from within the account that she favors.

<sup>10</sup> This is true of Coliva's (2015) and Pritchard's (2015) accounts, which I discuss in this paper. Some notable exceptions are Wright (2004), Williams (2007), and Kusch (2016b).

hinges, being the starting points and limits of rational and epistemic evaluation, are unjustified and unjustifiable (cf. Coliva 2015), or groundless and ungroundable (cf. Pritchard 2015).

If epistemic justification is only possible relative to hinges, this should mean that hinge epistemology is committed to **Dependence**. I shall assume that hinges, understood as propositions, norms and methods, are elements of an epistemic system. Epistemic systems are comprised both of norms and methods to forming, assessing, and relating beliefs (such as Observation, Induction, Modus Ponens, Revelation) and propositions whose truth is presupposed in the rational and epistemic justification of beliefs. Additionally, if an epistemic system's elements are its hinges, and the latter are the grounds on which justification for belief depends on, then two epistemic systems are different when a difference in their hinges leads to justifying opposing beliefs.

This last point is particularly relevant for our discussion of the relationship between hinge epistemology and the kind of relativism sketched in the introduction. It is an empirical fact that there are and have been different sets of belief systems that were supported by different hinges. For a subject matter X, here and now there are some who form beliefs on the basis of what they observe, and there are others who form beliefs about X on the basis of what they read in a sacred book. And across cultures and ages there is even more variation. Thus, hinge epistemology may accept **Pluralism**: people differ not only in what they believe, but also in what they take to be the justification and starting points of their beliefs. That is, there are different sets of hinges. But if there are different sets of hinges, we should expect that there are *hinge disagreements*. These are disagreements about what to believe and are rooted in differences in the hinges that comprise epistemic practices.<sup>11</sup> Given that hinge disagreements involve differences in the justification of beliefs, when two sets of hinges differ in what they take as unjustifiable and unjustified (that is, one of them holds fixed a hinge that the other does not) then they are two different epistemic systems.

Thus far, I haven't said anything contentious in the context of hinge epistemology. Is there something else in hinge epistemology that leads it to relativism? **Incommensurability** can be motivated with what we have. Suppose there is a hinge disagreement between two different sets of hinges such as the well documented and discussed disagreement between Galileo and Bellarmine.<sup>12</sup> As the dispute is normally

<sup>11</sup> In order to be in a hinge disagreement, the parties in a dispute need not disagree explicitly *over* hinges. Hinge disagreements are disagreements rooted in differences in hinges, and not in the conscious dispute over what are the right hinges of a given epistemic practice. On the possibility and intelligibility of there being disagreement over hinges such as “there are physical objects”, see Coliva and Palmira (forthcoming).

<sup>12</sup> A classic discussion of this disagreement in the context of epistemic relativism is Rorty (1979). See also Boghossian (2006), and Seidel (2014). Cf. Kinzel and Kusch (2017). As cases like this are commonly discussed in the literature about epistemic relativism, I should clarify that this is a go-to case study from both sides of the debate: relativists appeal to it to motivate the argument *from incommensurability*, whereas anti-relativistic strategies normally show why and how a non-relativistic reading of the case is more compelling. This means that the case neither proves relativism right nor wrong, nor entails that the different arguments in favor or against epistemic relativism should speak to Galileo and Bellarmine's particular dispute. The use of the case, both in this paper and in the literature, assumes just this

described, Galileo and Bellarmine held different beliefs: the latter believed that the Earth was immobile at the center of the universe, whereas the former believed that the Earth moved on its own axis and around the Sun. Purportedly, they also held different methods to justify their respective beliefs about the positions and movements of planets: Bellarmine endorsed Revelation, whereas Galileo rejected it and held Observation. Key to their dispute is that Bellarmine considered it unjustified to use *only* Observation to form beliefs about the Earth's movement, while Galileo took as unjustified the relying on Scripture to decide what is true about celestial bodies. Additionally, any attempt by either party to justify the validity of his own methods and norms would either apply the deliverances of the methods at issue or make use of other parts of the epistemic system whose justification was in doubt.

How can this lead to incommensurability? As it was mentioned, hinge epistemology holds that hinges are unjustified and unjustifiable within the epistemic system they belong to. If Bellarmine's hinges cannot be justified within his own epistemic system, they cannot be justified within Galileo's epistemic system either, and vice versa. Both epistemic systems are mutually exclusive and closed to each other. The upshot is that in the context of their disagreement, Bellarmine is not in a position to accept Galileo's justification for the belief that the Earth moves, since Galileo cannot in principle justify the hinges (say, Observation) that generate and justify such a belief.<sup>13</sup> Thus, from the fact that hinges are unjustified and unjustifiable, it follows that in cases of hinge disagreement the parties cannot be epistemically and neutrally convinced, since they are blind to each other's hinges. Furthermore, if they are blind to how the other party is justified to form a certain belief they disagree with, then their dispute is incommensurable.

I shall say more about Galileo and Bellarmine's disagreement below, but for the moment let me just note that we have the elements to commit hinge epistemology not only to incommensurability, but also to **Equal validity**. Some say that equal validity is entailed by incommensurability (cf. Carter 2017): if hinge disagreements are not neutrally and epistemically resolvable, epistemic systems are not to be ranked, at least not by their epistemic credentials (cf. Coliva forthcoming-a).

If this is the case, we have a *prima facie* reason to think that hinge epistemology is a relativistic epistemology. Since this form of relativism, besides worrisome, seems to be too quick, hinge epistemologists debate whether the theses of dependence and pluralism actually entail incommensurability. Even though hinge epistemologists grant that the dependence and locality of our practices of justification

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Footnote 12 (continued)

much: if an epistemological theory predicts that epistemic relativism from incommensurability is true or false, then it should show that (and how) it is true or false of the kind of disputes exemplified by Galileo and Bellarmine.

<sup>13</sup> For ease of exposition, I am simplifying matters a little here. For strictly speaking, there was no observational and available proof or demonstration that the Earth moves at the time of Galileo and Bellarmine's dispute (cf. Graney 2011). More concretely, if Galileo's hinges are unjustified even for himself, they are also unjustified for any other set of hinges (such as Bellarmine's) that conflicts with Galileo's.

can vary across different epistemic systems, they think that this does not imply a *radical* variability that gives rise to an impossibility to rationally resolve hinge disagreements. This avoidance of relativism depends on an account of what hinges are. The hinge epistemologist needs to defend an account of hinges that does not license incommensurability.<sup>14</sup> Let's consider two noteworthy efforts towards that direction: the acceptance view and the non-doxastic view.

### 3 Two attempts to close the door on epistemic relativism

The acceptance and non-doxastic accounts of hinges share this idea: incommensurability is false because hinge disagreements are epistemically and rationally resolvable, and they are rationally resolvable because all epistemic systems share the same background to which any putative hinge disagreement can be, by epistemic means, traced back.

#### 3.1 The acceptance account

Let's consider again Galileo and Bellarmine's disagreement. The latter, unlike the former, forms and justify beliefs about the movements and locations of heavenly bodies according to Revelation. If Revelation is part of the building blocks of Bellarmine's epistemic practices in the same way that Observation is of Galileo's, it seems that their disagreement is not only a case of pluralism, but also of incommensurability. Given that Revelation is for Bellarmine what Observation is for Galileo, there is no rational and neutral way to determine which one of these methods is justified.

Annalisa Coliva (2010) argues that the relativist is reasoning too quick and that a relativistic interpretation of the kind of disagreements exemplified by Galileo and Bellarmine's is not compelling. To begin with, Coliva doubts whether these disagreements actually entail pluralism. Roughly, that Bellarmine forms beliefs according to Revelation does not mean that his is an epistemic practice alternative to Galileo's, least that such a practice is deviant enough from Galileo's to motivate the claim that they subscribe two radically different epistemic systems. Forming beliefs according to Revelation does not constitute an independent and different epistemic system, because Revelation is carried out thanks to Observation. For instance, in order to read and interpret the Scripture, Bellarmine should use his perceptual faculties, rely on them, as well as form beliefs and reason according to Induction and Modus Ponens. Seen from this perspective, Coliva suggests, Bellarmine's and Galileo's respective systems of beliefs do not seem to encompass two radically different epistemic systems. Rather, it seems that Bellarmine's Revelation "would just be a piece of, as it were, 'primitive' Science [and] can't be used to support the idea that we are actually confronted with a different system of justification but only to

<sup>14</sup> An exception is Williams (2007). He thinks that blocking Equal validity is sufficient to refute relativism. Pritchard (2011) criticizes Williams on this score.

maintain the view that our system of justification may *evolve* through time” (Coliva 2010, pp. 8–9).

If pluralism is false of the kind of disagreements exemplified by Galileo and Bellarmine’s dispute, the thesis of incommensurability does not arise. Coliva, furthermore, not only says that incommensurability is unmotivated, but also that it is false. She says that there is just one universal epistemic system which is encompassed by more basic and fundamental methods and norms, such as Observation, Induction, and Modus Ponens.<sup>15</sup> In this way, if all epistemic systems presuppose the building blocks of the one system of justification, then hinge disagreements can be rationally resolved when traced back to those basic methods and norms. In the case at hand, Bellarmine’s and Galileo’s epistemic systems are commensurable in the sense that Revelation is just a deviation from the right methods of the one epistemic system; Revelation exemplifies a pre-scientific way of forming beliefs that could rationally evolve to a stage in which it can be completely consistent with the methods employed by modern science.

Turn now to the account of hinges, and hinge-attitudes, that underlies Coliva’s proposal of a rational resolution of a hinge disagreement.

First, as already suggested, Coliva’s hinges are necessary and constitutive of epistemic systems. Those are very general and abstract propositions, norms and methods that *must* be presupposed in any cognitive engagement with the world: if an epistemic practice A cannot be carried out without presupposing B, and B expresses either a very general proposition, or a basic method of belief formation that does not depend on any other method or norm, then B is a hinge. For Coliva this means that Revelation is not a hinge of any epistemic practice, since one can drop off Revelation and still be in a position to engage cognitively with the movements and locations of heavenly bodies (cf. 2015, p. 141). Furthermore, Coliva thinks that the possibility of alternative hinges (and with them the soundness of relativism) depends on the possibility of there being epistemic systems carried out without the hinges that are necessary *for our* epistemic system. But, according to Coliva, this is not only highly implausible but also misguided, since it is unconceivable to engage cognitively with the world without presupposing that there is a physical external world or that I am *prima facie* justified in believing the deliverances of my senses. Insofar as the one epistemic system of justification does not exhibit such a radical deviation, there is no radical variation of epistemic systems that could motivate incommensurability.

Second, Coliva conceives of hinges as propositions (2015, p. 33 and ff.). This involves two things. On the one hand, they have a content, or convey information, about the “abstract space of reasons” in which epistemic justification takes place (more on this below). On the other hand, hinges are graspable by a doxastic attitude which Coliva calls *acceptance* or *assumption*. Accepting a hinge is in turn understood as a doxastic propositional attitude, in the sense that a subject (i) takes the

<sup>15</sup> A similar point is made by Boghossian (2006, p. 103). Roughly, if *everyone* has to use their perception to acquire information about the world and relate the contents of their perception according to general principles such as Induction or Modus Ponens, then there are no radically different epistemic systems and hence no incommensurability. See also Seidel (2014).



content of the hinge to be true (Coliva 2018) and (ii) is in a position to successfully participate in epistemic practices that presuppose the hinge. *S* *accepts* the existence of the external world if it is committed in her “thoughts and actions to the existence of an external world” (Coliva 2015, p. 38; cf. 35). This commitment in thought and action does not require having or consciously entertaining the appropriate concepts. It suffices that the agent “said things, such as, ‘The red table is in the kitchen’, while he is not there seeing it” (2015, p. 35). Importantly, despite being a kind of doxastic attitude towards a proposition, acceptances are not meant to be justified. They do not aim at truth or justification, since they are the necessary conditions to judge what is true and justified.

Coliva’s response to relativism consists then in contending that pluralism is false, for any disagreeing parties in a dispute make use of the same basic methods and norms to which their disagreement can be traced back. This in turn entails that incommensurability is false. In our case at hand, we have then that Galileo and Bellarmine are not in a hinge disagreement, and that Bellarmine does not really *accept* Revelation as a hinge. Rather, he might be confused about how to direct the *basic* methods and constitutive hinges of his epistemic practice. In the remainder of this subsection, I shall mention why this response is insufficient to avoid relativism.<sup>16</sup>

If the acceptance account seeks to deny pluralism, that should follow from the account of hinges that it delivers. In particular, the acceptance account should establish that methods of belief formation such as Revelation are neither basic for any given epistemic system, nor the object of acceptance (in the sense of not being presupposed in an agent’s thoughts and actions). The acceptance account of hinges, in order to avoid a commitment to epistemic relativism, should deliver on these two things. However, the relativist has at least two reasons to think that, in the case of Bellarmine, an acceptance account of hinges as the one sketched above does not entirely preclude Revelation from being a hinge.<sup>17</sup>

First, Revelation is a hinge because *Bellarmino does accept Revelation as a hinge*. Bellarmine thinks and acts as if he takes Revelation to be a valid method of belief formation, even if unbeknownst to him that method happens to be unreliable. Notice that, as it was mentioned, *acceptance* as an attitude does not require anything but acting and thinking as if the proposition or method endorsed is taken as true or reliable. Thus, as long as Bellarmine’s endorsing of Revelation is manifested in his actions and thoughts even when he could be wrong in so acting and thinking, then—so the relativist contends—we can say that he *accepts* Revelation.

<sup>16</sup> I should mention that my target is not Coliva’s particular acceptance account, but rather the prospects of a conception of *hinges as accepted propositions* to avoid epistemic relativism from incommensurability.

<sup>17</sup> It is important to clarify that the relativist is not saying that the nature of hinges as accepted propositions is determined by the contingencies of Bellarmine and Galileo’s dispute. Rather, the relativist contends that the acceptance account cannot avoid relativism by simply insisting that methods of belief formation like Revelation are not hinges, because (so argues the relativist) Bellarmine’s epistemic practices can be interpreted as if Revelation is a hinge, which is what the relativist needs in order to commit the acceptance account to epistemic relativism.

Second, Revelation is a hinge because it is a *basic method of justification for Bellarmine*. As it was mentioned, an acceptance account considers that Revelation, in order to be a genuine hinge, must be carried out without presupposing any other method. Thus, if Bellarmine should use the deliverances of his senses to carry out Revelation, then Observation, and not Revelation, is a hinge. But the relativist thinks that this is debatable. Some have questioned whether it is true that the fact that *all of us* use our senses to engage cognitively with the world entails that there is just *one* epistemic system.<sup>18</sup> For one thing, even though Bellarmine needs to use his eyes in order to read and interpret the Scripture, this does not mean that Revelation is *justified* by Observation. The senses do not pay any *justificatory* role: what the Scripture says is not justified because Bellarmine can read it, but because it is presupposed in his overall epistemic system, despite allegations to the contrary. Bellarmine accepts Revelation, and acts as if what the Scripture says is true, not because his eyes (or his sense organs in general) so lead him to believe.<sup>19</sup> Rather, Bellarmine accepts Revelation even though other methods conflict with its deliverances: he is willing to consider as unjustified any piece of observational information that is unjustified *in light of* the Scripture. Furthermore, Bellarmine is not willing to justify the validity of Revelation by appealing to any other method. The relativist thus insists that Revelation is a hinge, even if the one who accepts Revelation uses, like the naturalist, her eyes to carry out that method of belief formation.

Relatedly, remember that the acceptance account says that pluralism is false because Galileo and Bellarmine share some hinges. The relativist alleges that the acceptance account cannot avoid pluralism by making that claim. The possibility of a hinge disagreement, and thus of pluralism, does not depend on whether Bellarmine *uses* Observation and inductive reasoning when reading the Scripture. Rather, it depends on whether there are two different methods doing different *justificatory work* for different sets of beliefs. And Galileo and Bellarmine's dispute exhibits a situation in which the justificatory work is done by different and irreducible methods. Both Bellarmine and Galileo rely on Observation, but only the latter uses it as a source of justification. There is then no apparent reason to deny Bellarmine the right

<sup>18</sup> Cf. Ashton (forthcoming), Kusch (2016a, 2017a, b), Bland (2018, chs. 8 and 9). I discuss Bland's solution to the problem of relativism in Piedrahita (2020).

<sup>19</sup> Consider what Bellarmine thought about Galileo's discoveries and Copernicanism in general:

if there were a true demonstration that the sun is at the center of the world and the earth in the third heaven, and that the sun does not circle the earth but the earth circles the sun, *then one would have to proceed with great care in explaining the Scriptures that appear contrary, and say rather that we do not understand them than that what is demonstrated is false*. ("Cardinal Bellarmine to Foscarini (12 April 1615)" in Finocchiaro 1989, p. 68, Emphasis added).

The relativist can contend that the emphasized consequent suggests that Revelation was a hinge for Bellarmine, since its validity did not depend on the deliverances of Observation or of any other method. Furthermore, Bellarmine's apparent reluctance to give up either Scripture or 'what is demonstrated' by Copernicanism suggests that Revelation and Observation were independent of each other and there was no hierarchy between them. For instance, Bellarmine takes it that the truth of Copernicanism does not debunk Revelation, but rather it calls for a more careful interpretation of Scripture. In this way, both hinges are independent in that even if Bellarmine was open to concede that the deliverances of Observation could affect his carrying out of Revelation (i.e., he should have to proceed with care in explaining Scriptures), this does not mean that the latter's *justification* depends on the former.

to accepting Revelation as a genuine hinge and to concede that he is with Galileo in a hinge disagreement.<sup>20</sup>

The acceptance account then cannot easily avoid pluralism. Can it avoid incommensurability? If it cannot, relativism ensues. According to the acceptance account, rational resolution of a hinge disagreement is possible by appealing to the basic, constitutive hinges of every cognitive engagement with the world: Observation, Induction, Modus Ponens and Deduction, and general propositions such as “There is an external world” or “My sense organs are mostly reliable”. One of the virtues of the acceptance account is that its hinges carry propositional content and are graspable by a doxastic attitude of acceptance. Another virtue of the acceptance account is that, considered as the constitutive assumptions of any epistemic system, the basic hinges are neutral: if they are part of every epistemic system, then they constitute a common ground to which both parties can appeal in order to reach an agreement. This makes hinges something that agents like Galileo and Bellarmine can argue for, defend, and even comprehend, in a way that both parties can reach a rational resolution to their disagreement. The acceptance account thus predicts that even though Galileo cannot justify Observation, and Bellarmine cannot justify Revelation, both parties can rationally engage in a process whose outcome is Bellarmine’s dropping of Revelation and acceptance of Observation. Notwithstanding these virtues, the relativist still has reservations and offers the following three challenges to the acceptance account.

First, regarding what hinges are, even though they are propositions, *it is not clear that their content is adequately discriminative*. In other words, the common, basic, and universal hinges do not seem to determine who is right and who is wrong.<sup>21</sup> The relativist does not mean that Observation does not favor the use of telescopes over the use of the Scripture when one does astronomy. Rather, the point is that Observation does not trump Revelation from both parties’ perspectives, which the relativist claims as a point for herself.<sup>22</sup> For, so the relativist claims, if Bellarmine has any reason to think that a defense of Observation over Revelation begs the question against his epistemic system, that defense despite being discriminative, is not

<sup>20</sup> It could be objected, against the relativist and on behalf of the acceptance account, that Galileo and Bellarmine’s is not a disagreement about hinges, for are they not merely disagreeing about very entrenched (maybe irrational) beliefs? The relativist responds that most interlocutors in the debate about hinge disagreements agree that disputes such as Galileo and Bellarmine’s are not just disagreements over what to believe, but also over what justifies our beliefs. And hinges, by definition, are the building blocks of epistemic justification. Thus, to say that Galileo and Bellarmine’s is not a hinge disagreement, but a mere disagreement over beliefs, would assume that Revelation is not a hinge, which is precisely what the acceptance account cannot easily avoid.

<sup>21</sup> This critical observation has been raised, in a different context, by Adam Carter (2017) against Pritchard’s account of hinges and rational resolution of disagreements, to which I will turn in the next sub-section.

<sup>22</sup> Again, remember that Galileo and Bellarmine’s (or a structurally similar) case does not render epistemic relativism from incommensurability neither true nor false. The relativist is not bootstrapping her position from an interpretation of the case. At this point, all the relativist contends against the acceptance account is that *if* the hinges of such an account can save us from epistemic relativism, *then* it has to be shown how and why Galileo and Bellarmine’s case is not well suited to a relativistic reading.

sufficiently neutral. Thus, following Adam Carter, the relativist says that there must be a discriminating condition for rational resolution of hinge disagreements:

*Discriminating*: for there to be rational resolution of a hinge disagreement between two epistemic systems, the systems' common hinges should be discriminative in the sense that they will favor one epistemic system over the other in a non-question begging way (cf. Carter 2017).<sup>23</sup>

Does the acceptance account of basic hinges meet the Discriminating condition? Take, for example, the tautological norm that is (allegedly) shared by all epistemic systems: infer  $p$  from  $p$ . This norm, though basic and universal, would not be discriminative to help rationally settle a debate as to whether  $p$  is the case (cf. Carter forthcoming). Or consider the basic method of belief formation, Perception, which is presumably constitutive of any (human) epistemic system: if it seems to me that  $p$ , and further conditions obtain, then I am rationally justified in believing that  $p$ . Is this method, albeit neutral and adequately graspable through acceptance, appropriately discriminative? The relativist answers that we have reason to think that it is not, since if we imagine two parties disagreeing as to whether  $p$  is the case, this method (which *merely* tells how to relate the contents of one's seemings with one's beliefs) is irrelevant to decide who is right and who is wrong.

Thus, we find that the acceptance account, while *prima facie* allowing for the possibility of rationally resolving hinge disagreements, faces the worry of offering hinges that, albeit neutral, are too general to be dialectically effective.<sup>24</sup> How can Galileo persuade Bellarmine to abandon his acceptance of Revelation and to accept Observation? If Galileo alleges that Observation, and not Revelation, is the reliable method by which beliefs about the movements of heavenly bodies are justified, Bellarmine would need a further reason to accept such a claim. But a justification for the reliability of Observation would make use of the deliverances of Observation, which is precisely what is at stake in this dispute. Such a justification would

<sup>23</sup> Carter also talks in terms of *Archimedean metanorms* as the ones that can meet the Discriminating condition (Carter forthcoming).

<sup>24</sup> Someone might think that this begs the question against Coliva's view. It could be that hinges do not meet the Discriminating condition because they (as the *necessary* presuppositions of any epistemic practice) are not supposed to decide who is right between Galileo and Bellarmine, given that Galileo and Bellarmine do not embrace fundamentally different epistemic systems (cf. Coliva forthcoming-a; Baghramian and Coliva 2019, p. 180 and ff.). I find this rejoinder problematic. First, the relativist is not committed to (and her position does not depend on) any view about hinges or about Galileo and Bellarmine's case. All she is saying is that under the acceptance account of hinges, Galileo and Bellarmine's case can be interpreted along relativistic lines, which is precisely what the acceptance account seems unable to avoid. Second, the rejoinder is based on the idea that Bellarmine's embracing of Revelation is not a hinge acceptance. To this, the relativist has at her disposal two lines of argumentation: first, that *in light of the acceptance view* we can allow Bellarmine the possibility of accepting Revelation as a hinge, since from Bellarmine's perspective Revelation is the object of *acceptance* and is *basic*. Second, that even if we grant that Revelation is *not* a hinge, we can ask: how can Bellarmine be *rationally* convinced that he should drop Revelation and accept Observation to form beliefs about the movements of heavenly bodies? The acceptance account should be able to say how rational resolution of hinge disagreement is possible, even *if* there are no radically different epistemic systems.

be question begging or, at least, dialectically ineffective (that is, Bellarmine *may not* accept such an argument without any epistemic fault on his part).

Secondly, *Galileo cannot justify his use of Observation in a non-circular way*. Galileo can undertake a more dialectically compelling strategy, such as showing Bellarmine that from his own viewpoint Observation has to be the starting point of his coming to be justified in forming beliefs about the external world in general. So, contends Galileo, if Bellarmine accepts Observation when it comes to non-astronomical matters, he has *prima facie* an epistemic reason to accept Observation when forming beliefs about the movements and locations of heavenly bodies. The relativist interprets the situation differently though. She contends that Bellarmine can argue that he is not challenging the all things considered reliability of Observation. He is instead opting for restricting the application of Observation, which (according to the Scripture) is not a reliable method to form perceptual beliefs about distant physical objects.<sup>25</sup> Without the truth revealed in the Scripture, he might say, there is no reliable way of directing our sense organs towards very distant astronomical objects. Thus, argues the relativist, by considering Revelation as a necessary condition of carrying out epistemic practices, Bellarmine accepts Revelation, takes it as a reliable method, and in such a situation he could be *rational* in not accepting an argument that tries to deny the restricted application of Observation and the general reliability of Revelation. Why is Bellarmine rational in doing so? Because, answers the relativist, he hasn't been given an independent reason to think that Observation should not be restricted, that is, he hasn't been given a non-circular argument against the reliability of Revelation (cf. Piedrahita 2020). Therefore, again, the hinges offered by the acceptance account are not enough to lead both parties to a rational resolution of their hinge disagreement, which the relativist finds as a welcome result.<sup>26</sup>

Thirdly, *basic, constitutive hinges do not point to any fact of the matter regarding Galileo and Bellarmine's dispute*. We can imagine Galileo inviting Bellarmine to look at his telescope and asking him to consider the following line of reasoning (which is an instantiation of a basic epistemic method): if it seems that the Earth moves, and further conditions obtain, then you (Bellarmine) are justified in believing that the Earth moves. The relativist might agree with the picture but contend

<sup>25</sup> In this respect, Christopher Graney says:

... Bellarmine had seen the Moon and Venus through a telescope for himself. At that time he had written to the Jesuit professors of the Roman College to confirm that what Galileo had discovered was real, and not merely an appearance (...) / Through a letter (...) Bellarmine expressed a willingness to listen to Galileo's ideas. But he also expressed caution in regard to interpreting as simply accommodating human perception those scriptural passages that speak of the Sun's motion: "This is not something to jump into, just as one ought not to jump hurriedly into condemning any one of these opinions." (2011, pp. 71–72).

<sup>26</sup> A possible rejoinder from Baghrmian and Coliva (2019, p. 182 and ff.) contends that Galileo and Bellarmine disagree over *non-fundamental* epistemic methods, such as Observation-restricted-to-the-heavens. That is, their disagreement is about the correct application of basic and fundamental methods such as Observation. If this is so, theirs is not a hinge disagreement and there is in principle a rational path to solve their dispute! This rejoinder is not very helpful to the acceptance account, for the problem is that there is no non-circular way to convince Bellarmine of the correct application of Observation and thus Bellarmine is rational to stick to his guns even in his restricted application of Observation—and this is troublesome enough for the possibility of there being a rational resolution of a (restricted)-hinge disagreement.

that the reasoning in question, which instantiates the neutral and basic method of Perception, is not discriminative enough such that Bellarmine can come to form a belief as to whether the Earth moves from his perceiving that the Earth moves. For one thing, the relativist reminds us that you cannot perceive the Earth's motion just by looking through a telescope. Complicated calculations and inferences regarding the composition and movements of light and other celestial bodies have to be entertained before you can conclude, on the basis of what seems to be the case by looking through a telescope, that the Earth moves. Thus, it seems that basic methods like Perception, or Observation, need further theoretical assumptions in order to justify one of the parties in the dispute. As long as the other party might have no reason from within his own epistemic system to embrace those further theoretical assumptions,<sup>27</sup> then those basic methods, albeit neutral and constitutive of any epistemic system, fail to be discriminative and thus to allow for rational resolution of hinge disagreements.

It seems that the acceptance account's hinges do not close the door on the relativist.

### 3.2 The non-doxastic account

Duncan Pritchard (2011, 2015, 2018b) also offers a strategy to block relativism by proposing an account of hinges that avoids incommensurability. Pritchard agrees with Coliva that hinges are propositions. Unlike Coliva, however, he does not think that our attitude toward hinges is a doxastic attitude. More specifically, he denies that we believe hinges, in the sense of believing that is sensitive to reasons and evidence and is thus necessary for knowledge. S believes that  $p$  in this sense if S has a propositional attitude towards  $p$  that could be rationally grounded.<sup>28</sup> As it turns out, however, Pritchard contends that the attitude we have, if any, towards hinges is not like *this*; such an attitude is not sensitive to, nor grounded in, reasons. Instead, Pritchard conceives of hinges as the object of an attitude he dubs *commitment*, which should rule out the idea that our hinges are justified, justifiable or even knowable (they are animal, or simply constitutive, of our cognitively engaging with the world).

Even though hinges are not the objects of belief, and there could be variations in the hinges that different agents and communities embrace, Pritchard argues that this by itself does not entail incommensurability. The problem of epistemic relativism, according to Pritchard, is not whether there are different epistemic systems, or whether we can justify to others the basic hinge commitments of our epistemic practices. Rather, he takes relativism to be worrisome insofar as it implies that there is no rational path to resolve a hinge disagreement; more generally, in order to refute relativism we must show that our beliefs and hinge commitments *can* change rationally.

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<sup>27</sup> According to Graney (2011), the Copernican system was at odds with the physics of the seventeenth century, whereas Tycho Brahe's geocentric model of the universe, "was identical to the Copernican world system both from the standpoint of mathematics and from the standpoint of astronomical observations" (72).

<sup>28</sup> For more on Pritchard's notion of belief, see Pritchard (2015, p. 90 and ff.; 2018a, pp. 24–27).

Importantly, Pritchard thinks that the key to blocking incommensurability and thus defusing relativism is to understand how one's hinges rationally change *over time* (2018b). If it is possible for one's hinges to rationally change over time, there can be rational resolution of hinge disagreements, to the extent that the rational resolution of a hinge disagreement is an instance of the general phenomenon of there being a rational change in one's hinges over time.

In order to avoid incommensurability, Pritchard's account begins by noticing that hinge commitments have a common core, a common theme, that is codified in other more particular and variable hinge commitments. Pritchard dubs this common core the *uber hinge*, which refers to a fundamental and overarching commitment of every epistemic system and every epistemic agent. This is a commitment to not consider oneself, and one's epistemic practices, as radically, systematically, and fundamentally mistaken in one's beliefs and enquiries.<sup>29</sup> Arguably, the uber hinge is constitutive of *any* cognitive engagement with the world – you would not get very far with your beliefs, or would not have any beliefs at all, if you were to think that you are radically and fundamentally deceived in your inquiries. Importantly, this uber hinge should be distinguished from the *particular* hinge commitments that a person, or a community, may embrace at a particular time. A particular hinge commitment is the particular *codification* of that uber hinge in a given epistemic system. For instance, although Revelation and Observation seem to be different hinges that justify different, and opposing, beliefs, they have in common that every epistemic agent who (sincerely) commits to either of them is also committed to not consider herself as radically and fundamentally mistaken in her enquiries.<sup>30</sup>

The last point merits mention that the uber hinge commitment is not only constitutive of any epistemic system, but it also secures that there is a significant overlap in the hinge commitments of different epistemic systems. If all epistemic systems, despite exhibiting differences, are structured by hinges that codify the conviction that we are not fundamentally mistaken in forming beliefs and conducting enquiries, it is expected that there will be common beliefs and common particular hinges across different epistemic systems. This common background also allows for there to be genuine and intelligible disagreement between two epistemic systems in dispute (cf. Pritchard 2011). If their disagreement and dispute count as rational and intelligible, both parties should share at least this commitment to not being radically and fundamentally deceived in their beliefs, and possibly other particular hinges that would promote their mutual understanding.

As it should be clear, however, this by itself does not block incommensurability. Incommensurability entails that there is no rational resolution of hinge disagreements, which could still be true even if all epistemic systems have beliefs and hinges in common. Thus, the uber hinge and the common overlap in different

<sup>29</sup> Pritchard (2015, p. 105; cf. 2011, pp. 282–283; 2018b, p. 4).

<sup>30</sup> In the discussion, we are assuming that epistemic systems, and enquiries in general, aim at getting at the truth. If someone insincerely embraces Observation, it is not clear what propositional attitude she would have towards the deliverances of Observation, or whether such a propositional attitude aims at truth.



hinge commitments constitute *one* of the two elements of Pritchard's account of rational resolution of disagreements.

The *second* element is the relationship between the uber hinge, the particular hinges, and the rest of beliefs that comprise an epistemic system. As mentioned, part of Pritchard's account is that only beliefs are directly responsive to rational considerations. So, if the problem of incommensurability is how to make room for a rational change in one's hinge commitments, Pritchard has to argue that hinge commitments change via the rational change of beliefs. That is, Pritchard proposes that one's *particular* hinges rationally change over time when one's beliefs also change, given that only the latter are responsive to rational considerations (Pritchard 2018b, p. 7; 2018a, p. 32). How is a hinge commitment responsive to rational considerations? Pritchard's answer is that the hinge commitment changes when (i) there is a change in one's wider set of beliefs (acquiring, dropping, or otherwise revising one's *previous* beliefs) and (ii) such a change of beliefs leads to a change in the particular hinge commitments, given that the latter are the manifestation of one's uber hinge commitment. In other words, a change of particular hinge commitments is a function of the changes of one's beliefs given one's uber hinge. Assuming that (i) and (ii) constitute a rational process, there is no reason to deny that such a change in hinge commitments is rational too. Thus, hinge commitments are after all somewhat responsive to rational considerations and hence can be rationally revisable.

Pritchard illustrates this by presenting a hinge disagreement between two subjects, Adam and Eve. Adam believes that the Earth is less than 10,000 years old. He "was raised in a religious community which takes the Bible as literal truth. He thus has a wealth of testimony from those around him that he should believe likewise" (Pritchard 2011, p. 268). There is also Eve, who believes that the Earth is much more than 10,000 years old and relies on scientific evidence whose basis she initially took from the testimony of her parents, teachers, and Geology books. How can they rationally resolve this hinge disagreement? Adam and Eve embrace different particular hinge commitments that are nonetheless the codifications of the same uber hinge, i.e., their commitment to not consider themselves and the members of their epistemic communities to be radically and fundamentally deceived in adopting certain sources of information as reliable. That is, they disagree about the epistemic authority of different kinds of books, but not about the epistemic authority of trusting what one's community takes as justified. Now, Pritchard contends, Adam and Eve's hinge disagreement is rationally resolvable when one of the parties (e.g., Adam) comes to re-codify their uber hinge commitment in the light of rational considerations that make him change his wider set of beliefs:

There will always be a rational way of engaging with the other party by looking to common ground (common beliefs, common hinges), and using that common ground to try to change their wider set of beliefs. If this is achieved, then over time one can change the other person's hinge commitments. More precisely, as their wider set of beliefs changes, so too will the specific hinge commitments which manifest their über hinge commitment (which never changes) (Pritchard 2018b, p. 7; 2018a, pp. 33–34).



This means that hinges are *indirectly* responsive to rational considerations: they rationally change when the wider set of beliefs rationally changes. In such a case, the particular hinge commitment (that the Scripture is a reliable source of information) becomes an ordinary belief: “the agents concerned (one of them anyway) will over time cease to regard a certain proposition as codifying the hinge conviction but as rather being a belief that is open to epistemic evaluation in the normal way” (Pritchard 2011, p. 283; cf. 2018b, p. 7). Having an ordinary belief, Adam may just *disbelieve* that the Scripture is a reliable source of information and come to form beliefs about the distant past using the same methods that Eve uses—that is, Adam’s uber hinge commitment is no longer manifested in the commitment to the trustworthiness of the Scripture.

Although Pritchard’s non-doxastic account nicely points towards the direction and dynamics that the rational resolution of a hinge disagreement might take, the relativist still has some things to say which ultimately question the purported success of this account in blocking incommensurability and responding to relativism.<sup>31</sup>

First, although the existence of the uber hinge could show that pluralism is false, this in itself does not meet the Discriminating condition which, as the relativist claimed before, is necessary for rational resolution of hinge disagreements. The relativist may contend that the process that Pritchard describes of a rational change in one’s hinge commitments does not meet the Discriminating condition, unless it is shown that a recourse to the uber hinge in the context of a hinge disagreement shows how the parties can rationally reach an agreement (cf. Carter 2017). Suppose that Adam (or Bellarmine), after meeting Eve (or Galileo), comes to entertain this thought: “I am committed to avoiding radical and systematic deception in my overall epistemic system, and yet I haven’t been given a neutral, non-circular reason to believe that I am the one deceived when I commit myself to form beliefs according to Scripture”. Is Adam being irrational? It seems that he is not irrational in sticking to his guns. The recourse to an uber hinge and to common beliefs is incomplete, since the proposed candidates to avoid radical divergence between epistemic systems and to secure rational resolution of hinge disagreements are too general to show how their mere existence is sufficient to favor one party over the other.

Now, this criticism might appear unconvincing, since Pritchard’s account is meant to show that it is *possible* for particular hinges to rationally change over time. His argument contends that rational resolutions of hinge disagreements are possible, even if in the practice this is difficult to attain. Certainly, the fact that the uber hinge is too general to meet the Discriminating condition seems an empirical or practical matter, such that even if it is *rational* for an agent to re-codify her uber hinge in light of contrary evidence to her wider set of beliefs, it might be *practically* impossible for her to change her beliefs and thus the codification of the uber hinge.

<sup>31</sup> Pritchard’s non-doxastic account of hinges has been recently discussed regarding its merits to actually solving one of the faces of the skeptical challenge [see Coliva (2018); Jope (2019); Nebel (2019); Simion et al. (2019); Zhang (2018)]. My target is not Pritchard’s particular account, but rather the prospects of a conception of hinges as a-rational, non-doxastic commitments that can rationally change over time to respond to relativism.

The relativist may respond that even *if* the recodification of the uber hinge could occur through a rational process, it is so only if circular justification is allowed, which is dialectically ineffective in the context of a hinge disagreement. Consider again Eve: she should use the common ground of beliefs to change Adam's commitments, which is supposed to be accomplished by changing Adam's wider set of beliefs. How can Eve change Adam's wider set of beliefs? By telling Adam that his beliefs are false because they are formed through an unreliable method. This entails that Eve changes Adam's wider set of beliefs by proving the reliability of science textbooks over bibles. But this will be dialectically ineffective, since any proof of the reliability of scientific textbooks will make use of what scientific textbooks say, which is precisely what is at issue in their disagreement. In other words, the general trust we have in our peers cannot be justified (because it is an uber hinge commitment), and a purported justification for the adoption of a particular codification of it (e.g. an epistemic justification of our trust in scientific textbooks) is deemed to be circular, since the justification of the reliability of a particular adoption of the uber hinge will make use of the deliverances of that particular way of codifying the uber hinge. But if the argument that Eve offers to Adam is circular and dialectically ineffective, Adam can *rationally* stick to his guns and refuse to change his wider set of beliefs and to recodify his uber hinge. If so, concludes the relativist, it is possible to *rationally refuse to change one's hinge commitments* in the context of a hinge disagreement. If circular arguments have no rational force to someone who already rejects the presuppositions on which such arguments rest, then it seems that the uber hinge, by leading to circular justification for a particular recodification of it, fails to be rationally persuasive to at least one of the parties in a hinge disagreement.<sup>32</sup>

Secondly, there seems to be a tension between Pritchard's non-doxastic account of hinges and his proposal of rationally resolvable hinge disagreements. As it was mentioned, Pritchard thinks that particular hinges are responsive, at least *indirectly*, to rational considerations. The difference between direct and indirect reasons responsiveness consists in that, in the former case, reasons are given directly to the other party so as to change her belief, while the latter is meant to indicate a situation in which one of the parties appeals to the common ground (uber hinge and wider set of beliefs) in such a way that 'over time' the other party changes her hinge commitments. Now, the relativist asks: how can a belief change independently of a (prior) change in one's hinge commitment? If the relation between hinge commitments and beliefs is one of justification (one's beliefs are believed and justified given one's hinges), how can one change one's beliefs without already having occurred a change in one's hinges? This would imply that a belief can change, so to say, 'in the void', and later on the hinge accommodates such a change by changing itself and thus being in harmony with the uber hinge.

<sup>32</sup> Pritchard could rejoin that this again shows that resolving a hinge disagreement is practically difficult. Note, however, that the argument just mentioned on behalf of the relativist does not appeal to practical or cognitive limitations (epistemic vices and biases, say), but to the *epistemic* possibility of Adam being rational in *not* changing his wider set of beliefs.

But if hinges allow us to judge what is true and what is false, it follows that a change in a belief would underlie a change in a hinge.

To avoid these worries, Pritchard could say that the beliefs that change are those that are supported by the common ground between the two parties. Pritchard says on this score: “one should look for common ground, and use that common ground to change the person’s beliefs in relevant ways. If enough of those beliefs are changed, this could over time impact upon their hinge commitments” (2018a, pp. 33–34). Maybe both parties can get to know each other, locate their shared beliefs and values, and then gradually reach an agreement about their beliefs about the world, which does not seem neither circular nor mysterious.

However, and as Steven Bland (2018, pp. 170–172) has suggested in a different context, if the particular hinge commitments are responsive to a change of beliefs, and those beliefs are common to both parties in a dispute, the relativist can now doubt whether this is really a case of hinge disagreement. If, on the one hand, the hinge commitment Observation is responsive to the wider set of beliefs and is grounded on the truth of those beliefs, then it is not clear why Observation is a hinge, since hinges are what grounds one’s beliefs and what provides justification for one’s beliefs. The question that the non-doxastic account leaves unanswered is: why to think that a commitment that changes in function of one’s beliefs is a *hinge* commitment? On the other hand, if the common ground guarantees that each party can rationally persuade the other just by appealing to the shared set of beliefs and values, does not this entail that both parties share the same epistemic system and that this is not a case of hinge disagreement? If the rational work is done by appealing to the common ground of beliefs, and this common ground has the power to change one party’s hinge commitments, then the relativist can agree that this is certainly a rational way of resolving a disagreement, but at the expense of not solving the incommensurability challenge, since now we have a reason to doubt whether both parties had different epistemic systems. This worry can be generalized in the following way. When it comes to blocking relativism, the thesis that hinges are not responsive to reasons has to allow for an *indirect* responsiveness to reasons via the wider set of beliefs. But if the rational resolution of a disagreement depends ultimately on what happens at the level of beliefs, then it is not clear whether this is a disagreement *over hinges*. And if this is not a disagreement over hinges, epistemic relativism (although avoided) has not been addressed.

At the end, it seems that the non-doxastic account of hinges, by locating the exchange of reasons at the level of beliefs, either permits to describe cases of hinge disagreement in which one of the parties can be rational and at the same time stick to his guns, or allows for a *possibility* of rationally resolving a disagreement that the relativist may think begs the question against her, since the possibility described assumes that both disagreeing parties have a common background that suggests that both of them are actually operating within the same epistemic system. Either way, it is not clear whether the incommensurability thesis is refuted, either because the possibility of rationally sticking to one’s guns exacerbates the incommensurability, or because the relativistic challenge, instead of addressed, has been dismissed.

## 4 Opening the door to rational resolution of hinge disagreements

We have seen two different accounts of hinges. Both say that hinges are propositions: they have a content and are graspable. The acceptance account, such as Coliva's, says that hinges are the object of a doxastic-like attitude, such that hinges are taken as true when we act and think as if the proposition expressed by them is true. Alternatively, according to Pritchard, hinges are neither believed, nor accepted, but merely held as certain in such a way that we do not have reasons or justification for so being committed to them. I have presented some limitations that each account faces and in this section I shall argue that there is a way of developing an account of hinges that could avoid these worries and thus guarantee a rational path to resolve hinge disagreements. In particular, I propose that hinges must have the following three characteristics.

First, the attitude towards hinges should not be aversive to rational considerations. This means setting aside a non-doxastic account of hinges. As we have seen, if part of the definition of what a hinge is excludes it from being susceptible to reasons, then it is difficult to show how a disagreement about what the right hinges are can be rationally and epistemically resolved. Thus, in the context of a hinge disagreement, hinges can be doubted and rationally grounded.

Second, hinges should be understood as propositions, or as carrying information about the epistemic grounds in which justification, and our inquiries in general, take place. Importantly, this information is not empirical or subject to truth evaluation. To affirm or deny that there is an external world, or that the Earth has existed for a very long time, is to say something about our epistemic practices and the rest of our beliefs. So, when I say that hinges can be doubted and justified *in the context of a hinge disagreement*, I mean that we can doubt and justify our overall grip onto reality. For instance, to doubt the general validity of Observation is to call into question whether the epistemic practices that rest on this method are reliable. In this way, that hinges are propositions should make room for the idea that a thoughtful user of an epistemic system is in a position to recognize (more on this below) how firm or shaky is her cognitive engagement with the world.

Third, the uber hinge that is constitutive of every epistemic system should rule out particular codifications or manifestations, even from the perspective of different sets of commitments. That is, even though hinge disagreements arise because there are different and inconsistent codifications of the uber hinge, there has to be a rational consideration available to both parties such that they recognize that both codifications should not be allowed and that they have the epistemic means to decide which codification of the uber hinge is the right one. In order to accomplish this without begging the question against one of the parties nor allowing for circular justification, the situation should be such that both parties, by reflecting on their particular hinge commitments in light of the uber hinge, could be in a position to determine which codification of the uber hinge should prevail.

Now, is this still a hinge epistemology? This worry might take two forms. One may suspect that these three characteristics take us too far from the notion of a

hinge such that it is no longer clear whether I am entitled to use the terminology of hinge epistemology. However, notice that hinge epistemology is not a monolithic set of doctrines about the ontological and epistemological status of hinges (cf. Coliva 2016, forthcoming-b). If hinge epistemology is a family resemblance epistemological approach to long-standing problems such as relativism, I take it that the account proposed in this section is still part of this family. In particular, the account proposed constitutes a *minimal* epistemic reading of hinges. It is epistemic because particular hinges are the object of a doxastic-like attitude susceptible to rational and epistemic considerations. Roughly, particular codifications of the uber hinge are justified in light of the uber hinge.

One might also worry that if particular hinges both carry propositional content and are susceptible to epistemic considerations, then it is unclear what prevents them from collapsing into revisable basic beliefs.<sup>33</sup> If particular hinges are really basic, entrenched beliefs in disguise, the proposed account is doubly worrisome: it is no longer a hinge view (so that it does not offer a response to relativism from within the confines of hinge epistemology) and it faces familiar epistemological problems that hinge epistemology is at pains to solve: epistemic regress of justification, skepticism, etc. Fortunately, the proposed account does not make hinges collapse into basic and revisable beliefs, and that is why the account is not fully epistemic. First, the uber hinge is not susceptible to epistemic reasons. We cannot justify the uber hinge, since there is no meta-principle or higher order hinge to which we are in a position to appeal in order to make sure that the uber hinge is the right way of conducting our epistemic practices.<sup>34</sup> Second, and more importantly, it is *the codification* of the uber hinge into particular hinges, and not the hinges themselves, what is susceptible to epistemic and rational considerations. The uber hinge in the form of a particular hinge is not susceptible to rational considerations because an attempt to justify it is not dialectically compelling. For instance, I said before that we cannot epistemically justify the general trust we have in our epistemic peers and that a purported justification of our trust in scientific textbooks is deemed to be circular. Nevertheless, in the proposed account, our coming to codify the uber hinge in particular hinges is susceptible to rational considerations. For instance, although we cannot justify our general trust in scientific textbooks, we certainly can realize that this particular codification of the uber hinge respects our general commitment to avoid radical and systematic deception in our epistemic system. Codifying one's hinges in a way that is consistent with avoiding radical and systematic deception is a rational process. As I shall explain below, Galileo's codification of the uber hinge in the form of Observation is justified because it is consistent with his more general commitment to avoid radical and systematic deception in his epistemic system.

<sup>33</sup> I thank two anonymous referees of this journal for inviting me to clarify this point.

<sup>34</sup> This minimal epistemic reading is similar to Kusch (2016b). Kusch suggests that the uber hinge that we are not systematically deceived in our inquiries cannot be known or justified even though (particular) hinges such as Observation or Revelation are justifiable and knowable (cf. 2016b, p. 60 and ff.). Unlike other epistemic readings of hinges (such as Wright 2004, and Williams 2007), I do not think that the uber hinge is the object of a doxastic state that entails entitlement and/or knowledge.

In contrast, Bellarmine's codification of the uber hinge in the form of Revelation is not as justified. For in their historical context, a commitment to Revelation was at odds not only with the results of astronomy, but also with those of geometry and optics. If Revelation were the right hinge to commit to, more than one of Bellarmine's cognitive enterprises would be doomed and he would be thus at risk of facing systematic deception. Bellarmine's codification of the uber hinge is susceptible to rational considerations to the extent that he could re-codify his uber hinge in a way that the results of different cognitive enterprises do not imply that he is radically and systematically deceived. Thus, hinges are not basic and revisable beliefs. Rather, what is basic is our commitment to avoid deception, and what is revisable is our coming to avoid deception.

Let's see more clearly how the above three characteristics of hinges interact in the context of Galileo and Bellarmine's hinge disagreement. They *accept* different *hinge propositions and methods*. Bellarmine accepts Revelation, the proposition that the Scripture is a highly reliable source of information about the whereabouts of heavenly bodies and the origin and composition of the universe, while Galileo does not accept Revelation and the infallibility of the Scripture for accurately answering questions that could be answered empirically. Given that their disagreement is not only about particular beliefs (does the Earth move? Is it at the center of the Universe?), but also about hinges (is Revelation, or Observation, the right way to ascertain the whereabouts of astronomical bodies?), their dispute is not resolvable just by adding reasons for or against the beliefs that each party holds.

Being rooted in what they accept as the valid way of forming beliefs, their hinge disagreement would be stressed, instead of resolved, just by defending their respective beliefs. What they should do to convince the other party is to defend their respective codifications of the uber hinge. Importantly, this defense does not consist in justifying the reliability of their respective codifications of the uber hinge. For instance, if Galileo defends the unrestricted validity of Observation, he would have to make use of the deliverances of that very same method, in which case the justification would not be dialectically compelling to someone, like Bellarmine, who already doubts the unrestricted validity of Observation. The same goes for Bellarmine. His defense of the infallibility of the Bible would require appealing to claims that are contained in the Bible, which is precisely what is at issue in the hinge disagreement.

How should they defend their respective codifications of the uber hinge? Remember that, to be rationally resolvable, a hinge disagreement should meet the Discriminating condition without begging the question against one of the parties. The combination of the acceptance and the non-doxastic views that I have outlined allows us to do that. What I want to suggest is that we can meet the Discriminating condition by determining whether a particular codification of the uber hinge would contradict the uber hinge. In other words, there are epistemic and rational considerations that (a) are available to every epistemic system (they are neutral and thus do not beg the question against any party) and (b) can help both parties to reach agreement as to what is the right codification of the uber hinge.

In particular, I take it that the following reasoning can be entertained by any champion of any epistemic system:

*Rational codification:* If my accepting the particular hinge X could lead me to think, at some point, that I am radically and systematically deceived, then I should not accept X provided that there is an alternative hinge Y that I am in a position to accept and Y, in comparison to X, would not let me to think that I am radically and systematically deceived.

Rational codification is an epistemic meta-principle, in that it does not refer to what is justified to believe, but to what we are justified to take as the justifiers of our epistemic practices. Rational codification says that one cannot accept a hinge that would lead one to go against the uber hinge. Alternatively: one should not codify the uber hinge in such a way that one's entire epistemic system is undermined. This means that hinges are susceptible to this kind of epistemic and rational considerations: one cannot justify Induction or Observation by appealing to the deliverances of those methods, but one certainly can justify one's use of those methods by considering how systematically deceived in one's enquiries one would be if one did not use those methods. Thus, if the uber hinge is the condition of possibility of every epistemic system without which no truth can be discerned and no measure of rationality is available, then every epistemic system that takes itself to be engaged cognitively and epistemically with the world should not accept hinge commitments that would make the very same practices of epistemic justification impossible or untenable.

Now how does Rational codification meet the Discriminating condition? It would be unfair to say that Bellarmine is radically and systematically deceived in embracing Revelation, since his epistemic system by itself does not contradict or goes against the uber hinge. When first encountering Galileo, Bellarmine might think that Galileo was wrong. Now, when confronted with Galileo's evidence, he could think that he *might* be wrong, which still does not entail being radically and systematically deceived. However, when the possibility of being wrong in one's beliefs is so pervasive that one can only stick to one's guns at the cost of losing one's overall grip onto reality, then one is faced with Rational codification: one should guide one's beliefs and commitments in such a way that one does not think of oneself that one is radically and systematically deceived. This is a rational path to resolve a hinge disagreement, one that was open to Bellarmine. *If* accepting Revelation (or restricting the validity of Observation) *could* lead Bellarmine to think that he is radically and systematically deceived in his calculations about heavenly bodies and beliefs about the composition and movements of planets, moons, and light, then he should not consider Revelation as the right codification of the uber hinge. Importantly, Bellarmine's encounter with Galileo provided grounds for the truth of the antecedent of the preceding conditional claim. The results of Galileo's observations and calculations were as scientifically accurate as they could be, and yet they were at odds with the Scripture and more generally with a Geocentric model of the universe. Thus, Bellarmine was in the following situation: his acceptance of Revelation could lead him to think that all the arguments and calculations in favor of Heliocentrism were false, which would entail that our best ways of dealing cognitively with the world were grounded in radical and systematic deception. In other words, his encounter with Galileo's evidence and unrestricted acceptance of Observation showed that to accept Revelation (and to dismiss Galileo's results) would entail that most of our beliefs

formed on the basis of experimentation, geometrical and mathematical grounds, were radically and fundamentally mistaken. This is tantamount to saying that if Bellarmine, *after his encounter with Galileo*, were to keep on accepting Revelation and rejecting the unrestricted validity of Observation, then his particular codification of the uber hinge would go against the very same condition of possibility of an epistemic system, i.e., to accept hinges and form beliefs as if one is not radically and systematically deceived in one's cognitive enterprise.

Does this procedure beg the question against Bellarmine? To see that this procedure is not only discriminative, but also neutral, consider Galileo's situation. He is not in a position to think that his encounter with Bellarmine gives him reason to think that he might be radically and systematically mistaken in his beliefs. For, on the one hand, the fact that his observations and calculations contradict what the Scripture says does not undermine his epistemic practices. Thus, Galileo's commitment to Observation does not lead him to suspect a massive breakdown in his epistemic system. Whereas if he were to embrace Revelation, he would be confronted with the possibility of being radically and systematically deceived in his epistemic practices as a naturalist. In this way, Observation should prevail over Revelation, independently of what the deliverances of these methods are. On the other hand, it might be that if Galileo finds that his observations and calculations contradict the Scripture, he might think that he is radically and systematically deceived in his religious beliefs. But to think that one is radically and systematically wrong in one's religious beliefs does not undermine the foundation of one's epistemic practices. These are two different kinds of breakdowns in one's hinges, and only one of them is relevant for considering whether it is rationally possible to resolve a hinge disagreement in a neutral and discriminative way.

To sum up, this proposal entails that hinge disagreements are rationally resolvable by evaluating which particular hinge commitment that creates the dispute goes against the uber hinge shared by every epistemic system. Importantly, this process of determining which particular hinge conflicts with the uber hinge is available to any thoughtful user of any epistemic system. Remember that accepting implies the possibility of grasping, or seeing to rational or epistemic considerations that ground one's hinges and epistemic practices. And it is also possible to accept a hinge proposition even if, unbeknownst to one, that proposition happens to be false. In this way, this kind of proposal does not require that one of the parties reaches the truth, or that a hinge disagreement is resolvable by showing which epistemic system is much more reliable (cf. Piedrahita 2020). Rather, the account of hinges on which this proposal depends entails that rational resolution, and rationality in general in our epistemic practices, means avoiding deception when engaging cognitively with the world.

## 5 Conclusion

Let's wrap up. I argued that a standard formulation of hinge epistemology is host to epistemic relativism and that two leading views of hinges (the acceptance account and the non-doxastic account) face some problems when they try to avoid it. I then



built from both accounts a minimally epistemic view of hinges that avoids epistemic relativism by showing how to rationally resolve hinge disagreements. Roughly, my proposal says that relativism is unmotivated because not all epistemic systems are on a par with respect to the uber hinge. Rational resolution of hinge disagreements occurs when one of the parties comes to see that her hinge commitments and beliefs should be modified, otherwise she would face the epistemic consequence of being radically and fundamentally deceived in her inquiries.

Although the proposed account offers hinge epistemologists a way out of the relativistic challenge, it should be noticed that its plausibility is doubly conditional.<sup>35</sup> On the one hand, the proposed account should be appealing to those who share the assumption that epistemic relativism is problematic and that we do not have a principled reason to believe it is true. If a hinge epistemologist considers that there is nothing worrisome about epistemic relativism, or even that it is true, my proposal of how to close the door to epistemic relativism would not be particularly pressing.<sup>36</sup> On the other hand, my account of hinges, which heavily relies on the uber hinge and on our capacity to structure our epistemic practices in a way that is true to it, should be appealing to those who see that hinge epistemology can easily collapse into epistemic relativism and that the discussed influential accounts of hinges are independently insufficient to respond to the relativistic challenge. In this way, the scope and force of this paper is admittedly modest: *if* one thinks that relativism should be avoided, and that we cannot easily do so with the acceptance and non-doxastic accounts of hinges taken independently, then I have offered reasons to believe that epistemic relativism is kept at bay once we realize that given our commitment to avoid self-deception in our epistemic practices, we are in a position to rationally persuade and be persuaded that a given epistemic system is not on the right track.<sup>37</sup>

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<sup>35</sup> I thank an anonymous referee of this journal for inviting me to clarify this point.

<sup>36</sup> For philosophers sympathetic both to hinge epistemology and epistemic relativism, see Ashton (2019, forthcoming) and Kusch (2016a, 2017a).

<sup>37</sup> Thanks to Anna Boncompagni, Annalisa Coliva, Louis Doulas, Duncan Pritchard, and two anonymous referees at *Synthese* for generous feedback during the process of writing this paper.

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