

## Closure, deduction and hinge commitments

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**Abstract** Duncan Pritchard recently proposed a Wittgensteinian solution to closure-based skepticism. According to Wittgenstein, all epistemic systems assume certain truths. The notions that we are not disembodied brains, that the Earth has existed for a long time and that one’s name is such-and-such all function as “hinge commitments.” Pritchard views a hinge commitment as a positive propositional attitude that is not a belief. Because closure principles concern only knowledge-apt beliefs, they do not apply to hinge commitments. Thus, from the fact that a subject knows that he is sitting in a room, and the fact that the subject’s sitting in a room entails his bodily existence, it does not follow that the subject also knows that he is not an envatted brain. This paper rejects Pritchard’s non-belief reading of hinge commitments. I start by showing that the non-belief reading fails to solve the skeptical paradox because the reasons that Pritchard uses to support the non-belief reading do not exempt hinge propositions from closure principles. I then proceed to argue that the non-belief reading is false as it claims that hinge commitments, unlike ordinary beliefs, are rationally unresponsive— with the help of a scenario in which a subject’s experience is internally chaotic, we can safely conclude that the hinge commitment that one is not systematically mistaken about the world is equally responsive to one’s evidential situations.

**Keywords** Skepticism · Closure · Deduction · Hinge commitment · Wittgenstein · Epistemic revision · Cartesian doubt

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## 1 Introduction

Skepticism can be construed as a paradox concerning epistemic closure. If we suppose that subject *S* is consciously sitting in a room, we have an inconsistent triad:

- (a) *S* does not know that he is not a brain in a vat.
- (b) If *S* does not know that he is not a brain in a vat, then *S* does not know that he is sitting in a room.
- (c) *S* knows that he is sitting in a room.

Giving up (c) opens the door to radical skepticism. Some epistemologists deny (a), but others would not start by rejecting it, as *S*'s veridical experience of sitting in a room can be subjectively indistinguishable from the experience he would have were he a brain in a vat. Condition (b) is governed by the widely endorsed closure principle for knowledge, which is roughly as follows:

(Closure<sub>simple</sub>) If one knows that *p*, and if *p* entails *q*, then one knows that *q*.

Because *S* knows that he is sitting in a room, which entails that he is not a brain in a vat, it follows from Closure<sub>simple</sub> that *S* knows he is not a brain in a vat. Therefore, (a), (b) and (c) are inconsistent.

Duncan Pritchard recently proposed a Wittgensteinian solution to the paradox. For Wittgenstein, “I am not a brain in a vat” is a ‘hinge proposition’ (Wittgenstein 1969). Pritchard views hinge propositions as the basis of our epistemic systems toward which we could have positive propositional attitudes but do not hold *beliefs*. Specifically, although *S* is committed to the truth of the proposition that he is not a brain in a vat, this attitude is not a knowledge-apt belief. In a plausible account of closure principles, these principles concern only knowledge-apt beliefs. Hence, they do not apply to inferences such as (b). Consequently, we may be able to reconcile (a) and (c) with closure principles (Pritchard 2012, 2016).

This paper refutes Pritchard's anti-skeptical solution and critically evaluates the defensibility of a non-belief reading of hinge commitments. Section 2 presents Pritchard's non-belief reading of hinge commitments as based primarily on the following two theses: hinge commitments are not acquired through rational cognitive processes, and they are not rationally responsive. I argue in Sects. 3–5 that these two features, according to Pritchard's arguments, do not exempt hinge commitments from all relevant closure principles. Section 6 shows that hinge commitments are not rationally unresponsive. Thus, the non-belief reading of hinge commitments not only fails to solve the skeptical paradox but is also erroneous.

## 2 Competent deduction and the non-belief hinge commitment

Wittgenstein notes that all epistemic systems assume certain truths. The notions that we are not disembodied brains, that the Earth has existed for a long time and that one's name is such-and-such all function as “hinge propositions”: their truths are so basic that they cannot be rationally evaluated. He writes:

... the questions that we raise and our doubts depend upon the fact that some propositions are exempt from doubt, are as it were like hinges on which those turn.

That is to say, it belongs to the logic of our scientific investigations that certain things are indeed not doubted.

... We just can't investigate everything, and for that reason we are forced to rest content with assumption. If I want the door to turn, the hinges must stay put. (*On Certainty*, §§341–3)

Properly interpreting and elucidating the nature of hinge commitments with a concrete epistemological theory is challenging (Coliva 2015, 2016; Koreň 2015; Orr 1989; Pritchard 2005; Schönbaumsfeld 2016; Tomasini Bassols 2010; Williams 1991; Wright 2004, 2014; Wright and Davies 2004). Pritchard starts by examining externalist readings of hinge commitments. Epistemic externalism, according to Pritchard, does not require knowledge to be always rationally grounded. That is, the reason why one has knowledge need not be accessible through reflection. The externalist could thus concede that *S* knows he is not a brain in a vat, except *S* is not rationally basing this knowledge on another belief, e.g., that he is sitting in a room. This possibility is consistent with the Wittgensteinian idea that some of our cognitions are exempt from epistemic evaluations (Pritchard 2016: pp. 19–22). The result clearly violates (a), but it preserves the intuition that *S* lacks the evidential basis to distinguish his perceptual experience from corresponding illusions. A solution to the skeptical paradox involving  $\text{Closure}_{\text{simple}}$  is thus forthcoming: *S* knows that he is sitting in a room, as the externalist would trivially agree; *S*'s sitting in a room entails that he is not a brain in a vat; *S* also knows that he is not a brain in a vat according to externalism.

Pritchard considers this externalist approach unsuccessful both as a reading of Wittgenstein's work and as a solution to the skeptical paradox. Although  $\text{Closure}_{\text{simple}}$  is silent on the epistemic relation between one's knowledge of *p* and *q*, closure principles essentially concern competent deduction that helps extend knowledge (Pritchard 2016: pp. 13–19). Through competent deduction, one becomes consciously aware of how a conclusion is supported by the premises. More precisely, if a person's knowledge of *p* is rationally grounded, and if he competently deduces *q* from *p*, then his knowledge of *q* should also be rationally justified:

( $\text{Closure}_{\text{RK}}$ ) If *S* has rationally grounded knowledge that *p*, and *S* competently deduces from *p* that *q*, thereby forming a belief that *q* on this basis while retaining the rationally grounded knowledge that *p*, then *S* has rationally grounded knowledge that *q*. (Pritchard 2016: p. 23)

As we assumed, *S*'s knowledge that he is sitting in a room is rationally grounded, for example, on his perceptual evidence, his confidence in his vision, etc. Therefore, if *S* deduces from his sitting in a room that he is not a brain in a vat, then based on  $\text{Closure}_{\text{RK}}$ , he should possess rationally grounded knowledge that he is not a brain in a vat. Whereas externalists could explain how *S* knows he is not a brain in a vat without rational support they cannot prevent *S* from inferring this conclusion from his sitting in a room. The result, however, counters Wittgenstein's position that hinge commitments are epistemically groundless.

In addition to this anti-Wittgensteinian conclusion, the externalist succumbs to the skeptical paradox. That *S*'s denial of the skeptical possibility is rationally grounded conflicts with the intuition behind condition (a). *S* is practically allowed to assume that he is not in a skeptical world, of course. The assumption is also necessary for his epistemic evaluations. However, it is not based on any evidence that eliminates skeptical possibilities. The skeptical paradox therefore resurfaces, reformulated in terms of rationally grounded knowledge (Pritchard 2016: p. 23):

- (a') *S* cannot have rationally grounded knowledge that he is not a brain in a vat.
- (b') Closure<sub>RRK</sub>.
- (c') *S* has rationally grounded knowledge that he is sitting in a room.

The same problem afflicts 'entitlement,' which Crispin Wright has developed as another reading of Wittgenstein's hinge propositions (Wright 2004, 2014; Wright and Davies 2004). An entitlement is a defeasible rational basis for a proposition that one enjoys by default when no reason for its falsity is yet available. We are entitled, for instance, to believe that we are not brains in vats and that the Earth has existed for a long time. Even if these propositions lack evidential support, we are rationally justified to believe them before discovering their defeaters. A proponent of the entitlement reading can thus agree that we have knowledge of hinge propositions, albeit with a special kind of rational support. Unfortunately, because of Closure<sub>RRK</sub>, hinge propositions continue to receive ordinary rational support beyond mere entitlement (Pritchard 2016: p. 78). In fact, when *S* competently deduces that he is not a brain in a vat, his denial of the skeptical possibility is nonetheless supported by his rationally grounded knowledge that he is sitting in a room. Once again, we are violating condition (a').

Pritchard's solution is to read hinge commitments not as *beliefs* but rather as propositional attitudes that are "part of the tacit intellectual backdrop against which we acquire our beliefs in non-hinge propositions" (Pritchard 2012: p. 263, 2016: p. 76). Because closure principles of knowledge such as Closure<sub>RRK</sub> apply only to knowledge-apt beliefs, the skeptical paradox can be avoided if hinge commitments are not beliefs.

Although this solution sounds hopeful, explaining why hinge commitments are not beliefs is not trivial. Merely stipulating the non-belief reading is not a viable option. Hinge commitments and ordinary beliefs are phenomenally similar (Pritchard 2016: p. 102). As in the case of ordinary beliefs, we can endorse a hinge proposition using competent deduction; people also tend to believe that they have beliefs in hinge propositions (Pritchard 2016: p. 92). In defense of the non-belief reading, therefore, Pritchard has argued that one may not have a belief even if one believes that one does; he also denies that a person's propositional attitude can be phenomenally determined (Pritchard 2016: pp. 92, 102).

Given the contested nature of these issues, the non-belief reading must be well established before it solves the skeptical paradox. Generally, however, similarity and difference are gradable; any two notions typically have both similarities and differences. To propose the non-belief reading as a formidable solution to the skeptical paradox, therefore, one must properly explain why the differences between hinge commitments and ordinary beliefs are sufficient to exempt hinge commitments from closure principles. Pritchard has offered the following two arguments for this purpose: (i) hinge commitments are not acquired through rational processes; and (ii)

hinge commitments are not rationally responsive. Epistemic unresponsiveness can be further analyzed in terms of epistemic non-revisability and epistemic inertia. As the next three sections show, however, epistemic non-revisability and the absence of rational acquisition process are too weak to exempt hinge commitments from closure principles, whereas epistemic inertia renders the non-belief reading redundant and unmotivated.

### 3 Rational acquisition process

The first distinction that Pritchard observes between hinge commitments and ordinary beliefs pertains to their acquisition process. Most of our ordinary beliefs are acquired through specific rational processes. However, this is not true of hinge commitments:

Indeed, our hinge commitments do not seem to be the product of any specific kind of belief-forming process... (Pritchard 2016: p. 76)

... given that our hinge commitments are *ex hypothesi* never the result of a rational process... they are not plausible candidates to be beliefs. (Pritchard 2016: p. 90)

For example, the hinge commitment that the Earth did not come into existence 5 min ago is not acquired through any rational process. It is already presupposed in all specific historical inquiries (Pritchard 2016).

Pritchard has not elucidated the meaning of a rational process, but his observation applies to both internally justified reasoning and externally characterized cognitive processes. Again, the proposition that the Earth has existed for a long time is not endorsed because of competent reasoning, nor of a cognitive faculty such as vision or memory.

This feature of hinge commitments is essential for Pritchard to solve the closure problem. Recall that  $\text{Closure}_{\text{RK}}$  describes a situation in which the subject *forms* a belief in the consequent  $q$  by deducing it from  $p$ . As Pritchard notes:

... it is key to this principle that it is describing the *acquisition* of a (knowledge-apt) belief via the *rational process* of competent deduction. (Emphases in the original, Pritchard 2016: p. 91)

Because hinge propositions are in a sense *already* endorsed, our commitment to them can no longer be acquired through any competent deduction. The principle of  $\text{Closure}_{\text{RK}}$ , which has plagued externalist and entitlement readings of hinge commitments, can now be accommodated if we pay attention to how the acquisition processes of hinge commitments and ordinary beliefs differ.

Although the difference in the acquisition process explains why  $\text{Closure}_{\text{RK}}$  does not apply to hinge propositions, it remains ineffective against the skeptical paradox. Indeed,  $\text{Closure}_{\text{RK}}$  is a restricted version of the closure principle. Deductions not only are used to acquire new beliefs but also serve to reevaluate previously acquired opinions (see Coliva 2012; Moretti and Piazza 2013). To clarify, consider the following situation:

(MATH) A mathematician acquired a belief in  $T$  because a colleague told him that  $T$  is true. Later, the mathematician independently proved  $T$ .

The second performance of the mathematician is a clear case of competent deduction, and it confirms a previously acquired belief with new evidential support. Now, if we agree with Pritchard that closure principles are essentially about competent deductions, then a more general version is expected to account for the mathematician's proof as well.

For this purpose, it suffices to replace “forming a belief” in  $\text{Closure}_{\text{RK}}$  with “holding a belief”:

( $\text{Closure}_{\text{RKH}}$ ) If  $S$  has rationally grounded knowledge that  $p$ , and  $S$  competently deduces from  $p$  that  $q$ , thereby holding a belief that  $q$  on this basis while retaining the rationally grounded knowledge that  $p$ , then  $S$  has rationally grounded knowledge that  $q$ .

Whereas  $\text{Closure}_{\text{RK}}$  concerns only beliefs that are newly acquired through deductions,  $\text{Closure}_{\text{RKH}}$  also applies to deductions that reinforce antecedently acquired beliefs.

Unfortunately, the observation that hinge commitments are not acquired through any rational process no longer exempts them from closure principles such as  $\text{Closure}_{\text{RKH}}$ . The fact that hinge propositions are already endorsed is compatible with their reevaluation through competent deduction. When Pritchard argues against externalist and entitlement readings of Wittgenstein via  $\text{Closure}_{\text{RK}}$ , he recognizes the possibility of endorsing hinge commitments through deductions based on ordinary knowledge.

Proponents of Pritchard's solution cannot reply by insisting that hinge propositions are not only “already endorsed” but also “never actually endorsed through a rational process.” This nuance, albeit real, is irrelevant to rational reevaluations through competent deduction. Naturally, we can specify in  $\text{Closure}_{\text{RKH}}$  that  $q$  must either be a new belief or have actually been acquired through a rational process. Thus modified,  $\text{Closure}_{\text{RKH}}$  no longer applies to hinge commitments. However, this version of  $\text{Closure}_{\text{RKH}}$  is again overly restricted. A subject can *a priori* acquire opinions in a way that does not respond to rational consideration but nevertheless revise them on later occasions. Suppose that a mad scientist is using a device to implant five arbitrary ideas in my mind each day—ideas that I cannot help endorsing at first. From my own perspective, these ideas keep appearing without me being able to question how or why they appear, and their acquisition is unresponsive to rational considerations in this respect. Still, I can subsequently reevaluate these ideas through competent deductions.

A further objection suggests that reevaluating hinge commitments through  $\text{Closure}_{\text{RKH}}$  presupposes the possibility of first acquiring them through deductions.  $\text{Closure}_{\text{RKH}}$  is thereby no more applicable than  $\text{Closure}_{\text{RK}}$  to hinge commitments. Although this statement might be true, the objection is based on the idea that hinge commitments *could* never be rationally acquired. This claim is stronger than Pritchard's observation that hinge commitments are never acquired through rational process. It should therefore be established on further independent grounds.

Proponents of Pritchard's solution might still find the above criticism unconvincing. To properly defend Pritchard's solution, however, one must explain why, despite the

irrelevance of the acquisition process, the non-belief reading of hinge commitment remains efficient. Here, one cannot simply appeal to Wittgenstein's original theses on hinge proposition and certainty, which Pritchard purports to interpret. The reason for this is that Pritchard offers the non-belief reading precisely because Wittgenstein's ideas were not specific enough to address contemporary epistemological issues immediately. The failures that Pritchard notes of the externalist and entitlement reading of Wittgenstein clearly establish this point. To defend Pritchard's proposal, therefore, one must appeal to alternative arguments that Pritchard has employed to defend the non-belief reading as a solution to the skeptical paradox. We shall now consider these arguments. For the moment, it suffices to conclude that the difference between hinge commitments and ordinary beliefs regarding their actual acquisition processes does not exempt the former from relevant closure principles.

#### 4 Epistemic non-revisability

In addition to the absence of a rational acquisition process, hinge commitments are characterized by their unresponsiveness to rational considerations. To quote in full a passage previously cited from Pritchard:

... given that our hinge commitments are *ex hypothesi* never the result of a rational process and are in their nature unresponsive to rational considerations, then they are not plausible candidates to be beliefs. (Pritchard 2016: p. 90)

Ordinary beliefs are responsive to rational considerations in at least two ways. They can be both positively favored and negatively doubted. Accordingly, we can analyze epistemic unresponsiveness in terms of epistemic non-revisability and epistemic inertia.

(Epistemic non-revisability) A subject's belief that *p* is epistemically non-revisable if it can be revised under no epistemic consideration.

(Epistemic inertia) A subject's belief that *p* is epistemically inert if it can be positively supported by no epistemic consideration.

Pritchard construes unresponsiveness mainly as non-revisability. Immediately after introducing the concept of unresponsiveness, he explains that an agent who holds an ordinary belief should revise it upon acquiring counterevidence (Pritchard 2016: p. 90). Ordinary beliefs are commonly considered revisable. Are hinge commitments non-revisable in the relevant sense?

##### 4.1 The two senses of non-revisability

Pritchard's "non-revisability" reading of hinge commitments is based on Wittgenstein's comments on skeptical doubt. According to Wittgenstein, the hinge proposition that one has two hands is so basic that it cannot be "proved" by one's sight of them:

If I were to have any doubt of it, then I don't know why I should trust my eyes.  
 For why shouldn't I test my *eyes* by looking to find whether I see my two hands?  
 (*On Certainty*, §125)

Wittgenstein also indicates that doubting Moorean-certain propositions would “drag everything with it and plunge it into chaos” (*On Certainty*, §613). Thus, “doubting itself presupposes certainty” (*On Certainty*, §115). Following these remarks, Pritchard concludes that hinge commitments are “immune to rational doubt” (Pritchard 2016: p. 65).

For the sake of argument, let us agree with Wittgenstein and Pritchard that hinge commitments resist the *consideration of skeptical possibilities*. However, apart from the consideration of possible scenarios, revisions of ordinary beliefs also occur with *new evidence*. When I somehow believe that it is sunny tomorrow, I can, of course, suspend my judgment, for example, considering other possibilities with a hypothetical “what if” question, but I am more likely to revise the belief if the weather forecast predicts rain. Thus, we can distinguish two senses of epistemic non-revisability.

(Epistemic non-revisability<sub>1</sub>) A subject's belief in  $p$  is non-revisable<sub>1</sub> if it cannot be revised despite any actual defeater of  $p$ .

(Epistemic non-revisability<sub>2</sub>) A subject's belief in  $p$  is non-revisable<sub>2</sub> if it cannot be revised with consideration of a possible defeater of  $p$ .

Although other notions of revisability may exist, non-revisability<sub>1</sub> and non-revisability<sub>2</sub> are the most relevant notions to the present discussion. As noted, an ordinary belief is revisable in both ways. My belief that it will be sunny tomorrow can be revised by both the “what if” consideration of alternative possibilities and counterevidence from the weather forecast. Wishful thinking, a propositional attitude different from belief, is by contrast non-revisable in both ways: it can be revised neither by consideration of alternative possibilities nor by counterevidence (Pritchard 2016: p. 90).

The two senses of revisability can be better understood by noticing that they are independent from the typical distinction between undercutting and overriding defeaters.

Typically, an undercutting defeater of one's belief in  $p$  is evidence  $q$  that the cognitive process supporting  $p$  is unreliable. An overriding defeater of  $p$  is direct counterevidence that not- $p$  is true. My belief that “it will be sunny tomorrow” suffers from an undercutting defeater if I am actually informed that my meteorological source is untrustworthy. The belief encounters an overriding defeater if I instead see rain the next day. In both cases, the prediction “it will be sunny tomorrow” is revisable<sub>1</sub>. It should be revised in both cases due to actual evidence of the falsity of the prediction.

The same pair of defeaters can also apply through revisability<sub>2</sub>. Suppose that I am cautious and, despite the practical requirements that dispose me to endorse certain propositions, I often suspect their truth. For example, I can reasonably suspend my belief that “it will be sunny tomorrow” with the mere thought, “what if it rains tomorrow?” I can also do so by asking “what if the weather forecast is not trustworthy?” In both cases, I am revising my belief with the hypothetical consideration of a possible defeater, whether overriding or undercutting. Although I would be criticized for being



overly suspicious, this criticism would not undermine the revisability<sub>2</sub> of my belief concerning the weather.

The two concepts of revisability can be further elaborated, but their *prima facie* distinction suffices for the present discussion. We noted that ordinary beliefs are revisable in both senses. Are hinge commitments revisable in both senses, too? Because we granted to Pritchard and Wittgenstein that hinge commitments are non-revisable<sub>2</sub> against hypothetically considered skeptical scenarios, it suffices to ask if they are non-revisable<sub>1</sub> considering new evidence.

The answer is apparently no. That I have two hands is a hinge proposition for me. According to Wittgenstein, I should not doubt that I have two hands by way of hypothetical scenarios such as the “brain in a vat”: the proposition is non-revisable<sub>2</sub>. Nevertheless, if I had an accident and lost my hands, I would know that I no longer have hands. As Pritchard agrees, hinge commitments vary from person to person, culture to culture, and epoch to epoch. Most of us still share with Wittgenstein the hinge commitment that we have not been to the moon, but things could change in the future where moon travel becomes commonplace (Pritchard 2016: p. 95–96).

Pritchard argues, however, that the relevant hinge commitment remains non-revisable. His approach to the diversity and instability of hinge commitments is to distinguish *personal* hinge commitments from the *über* hinge commitment. Personal hinge commitments are hinge commitments that individuals occasionally take for granted. These commitments vary in content and can change over time. However, they play the role of hinge commitments only *as* they, in Pritchard’s term, “codify” a general *über* hinge commitment, namely, the commitment that one is not systematically mistaken (Pritchard 2016: pp. 95–103). For example, my having two hands and the Earth’s existence for a long time are hinge propositions only because if they are not taken for granted, then no certainty would remain. Pritchard does not elaborate on the codification relation between personal and *über* hinge commitments much further. One could say that generally, the *über* hinge commitment that “I am not systematically mistaken” is less frequently and less plausibly explicated than other personal hinge commitments such as “I have two hands” and “the Earth has existed for a long time.” Moreover, the truth of these particular propositions is taken for granted only *because* the fact that one is not systematically mistaken is also presumed. The link between personal and *über* hinge commitments is severed when recalcitrant evidence accumulates to a degree that overturns personal hinge propositions. In such situations, these propositions are no longer hinge commitments. Nevertheless, the propositions that continue to “codify” the *über* hinge commitment continue to be taken for granted. In this respect, the *über* hinge commitment is non-revisable<sub>1</sub>. Because it is also non-revisable<sub>2</sub>, as we previously assumed, the *über* hinge commitment differs from ordinary beliefs in both senses of revisability.

## 4.2 Non-revisability and competent deduction

Section 6 will argue that even the *über* hinge commitment is not non-revisable<sub>1</sub> against actual counterevidence. Regardless of this argument, even if we accept the perfect non-

revisability of the über hinge commitment, Pritchard's solution to the skeptical paradox lacks support.

Recall that the solution construes closure principles with competent deductions on the one hand and denies that hinge commitments are knowledge-apt beliefs on the other hand. The two parts hold together only if the reasons that distinguish hinge commitments from beliefs can explain why competent deductions do not apply to hinge commitments. As discussed, differences in how they are acquired precludes hinge commitments from Closure<sub>RK</sub> but not from the generalized Closure<sub>RKH</sub>.

Epistemic non-revisability suffers from the same issue.

When we engage in deductive reasoning, the truth of the conclusion can often be an open question. One can infer that the temperature is 23 °C by reading it from a thermometer on the assumption that the thermometer is working; the conclusion, of course, can be revised if one learns that the thermometer is actually broken. The revisability of the conclusion, however, is not indispensable to the inference. Competent deduction constitutes a comprehension of the relation between the premises and the conclusion. It does not *ipso facto* require that the conclusion is revisable.

Consider again the case of (MATH) in which the mathematician has proved  $T$ . As a mathematical theorem,  $T$  is necessarily true. Therefore, in contrast to other inferences with empirical evidence, it is not revisable. Nonetheless, when the mathematician properly runs the proof, he still knows  $T$  based on relevant premises. He has undoubtedly performed a competent deduction, which, according to Pritchard, constitutes the essence of closure principles. Therefore, Closure<sub>RKH</sub> applies.

One might object that  $T$  could still be revisable. Before it is first proved, the truth of  $T$  was uncertain. Revisability is not a metaphysical property of a proposition. It describes our epistemic situation: whenever a justification for a proposition is uncertain, it is possible to revise one's belief in it. The proof of  $T$  could be so complex that it cannot be intuitively grasped. Even if the proof is sound, mathematicians may nonetheless wonder if  $T$  is true.

This objection can be avoided by focusing on mathematical truths that are easy to apprehend. The fact that a proposition is elementary does not prevent us from constructing proofs of its truth. Thus, while the equation " $2 + 2 = 4$ " is too simple to be epistemically revisable, it can nonetheless be deduced from more basic axioms.

Here, one must not insist that a proposition as basic as " $2 + 2 = 4$ " is epistemically revisable. Some epistemologists have attempted to make sense of similar scenarios (Casullo [Casullo](#): pp. 94–96; Hempel [1964](#) : pp. 378–379). Regardless of the plausibility of such cases, " $2 + 2 = 4$ " arguably functions as a hinge proposition within our mathematical system. If it is epistemically revisable, then the thesis that hinge propositions *as hinge propositions* are non-revisable will simply be false.

## 5 Epistemic inertia, closure and transmission

The most prospective feature of a hinge commitment that could preclude it from principles such as Closure<sub>RKH</sub> is epistemic inertia, i.e., resistance to positive evidential support. In addition to exhibiting non-revisability and the absence of an acquisition process, hinge commitments are epistemically inert, according to Pritchard, because

“one can’t form a belief in a hinge proposition on *any* rational basis” (Pritchard 2016: p. 94).

Although Wittgenstein seems to be concerned primarily with revisability<sub>2</sub>, the epistemic inertia reading is also textually supported:

My having two hands is, in normal circumstances, as certain as anything that I could produce in evidence for it.

That is why I am not in a position to take the sight of my hand as evidence for it. (*On Certainty*, §250)

Pritchard so interprets:

Wittgenstein claims that the very idea of a rational evaluation, whether *positive* or negative, presupposes a backdrop of Moorean certainties that are themselves exempt from rational evaluation. (My emphasis, Pritchard 2016: p. 65)

Nevertheless, how to understand the epistemic inertia of hinge commitments is not straightforward. A primary obstacle concerns the fact that Pritchard explicitly recognizes the possibility of endorsing the entailed hinge proposition through competent deduction.

... it is compatible with the nonbelief reading that an agent who undertakes the relevant closure<sub>RK</sub>-based competent deduction ends up adopting a propositional attitude of some sort toward the entailed hinge proposition. (Pritchard 2016: p. 92)

As to how this endorsement differs from belief, Pritchard refers again to epistemic unresponsiveness and the lack of a rational acquisition process:

... insofar as we accept that such a commitment is merely codifying the prior über hinge commitment, a commitment that is not the result of a rational process or even in principle responsive to rational processes, then the anti-skeptical hinge commitment is also very different from belief in fundamental respects. (Pritchard 2016: p. 101)

We noted that the absence of an acquisition process cannot distinguish hinge commitments from beliefs regarding closure<sub>RKH</sub>. The same goes for unresponsiveness construed as epistemic non-revisability. The only option is therefore to explicate why hinge commitments cannot be positively supported. Notice that inertia must not be merely stipulated because it *prima facie* conflicts with endorsing hinge commitments through deduction. To insist further on inertia at the expense of such endorsements would trivially ignore the skeptical paradox that Pritchard elaborates and attempts to solve.

One approach to defending the inertia account is to argue that the justification for ordinary beliefs does not transmit to hinge commitments. Crispin Wright remarks that, contra Moore, one should not infer from one’s having hands the existence of an external world because the warrant for the former already presupposes that for the latter (Wright 1985, 2002; Wright and Davies 2004). Likewise, it seems epistemically unusual to infer from one’s sitting in a room that one is not a brain in a vat (see also

Brown 2004; Chandler 2013; Coliva 2012; Moretti 2012, 2014; Neta 2007; Silins 2005; Smith 2009; Tucker 2010).

Regardless of how to explain the transmission failure, this notion does not help Pritchard's diagnosis of the skeptical paradox. Transmission is a general and independent epistemic phenomenon. A justification for the premise could fail to transmit through a deduction whenever that justification presupposes the truth or the justification of the conclusion itself. The conclusion could be a hinge proposition, though it need not be. Hence, if Pritchard is appealing to the broad notion of transmission failure, then the narrower non-belief reading will be unmotivated and redundant as a solution to the skeptical paradox.

Some other reasons also discourage the "transmission failure" account. As Pritchard notes, transmission is about how the warrant for the premise *contributes* to that for the conclusion. In contrast, closure requires only that when the premise is warranted, the conclusion is also warranted (Pritchard 2016: p. 193). Because the skeptical paradox concerns whether we have rationally grounded knowledge of the denial of skeptical possibilities, not how we acquire this knowledge, closure principles are apparently more relevant. Moreover, various factors could contribute to the warrant for the conclusion during a competent deduction. The warrant for the premise undoubtedly constitutes the warrant for the conclusion: once the premise is accepted during a deduction, its truth becomes a basis for the conclusion (Silins 2005). Additionally, some internalists indicate that the very apprehension of the connection between the premise and the conclusion provides a propositional justification for the conclusion (Fumerton 2016: p. 243). Whereas this variety of contributing warrants is perfectly compatible with closure principles, it is not easily accommodated within a theory of transmission (see Silins 2005).

Unable to appeal to transmission failures, Pritchard lacks an explanation of why the commitment to the anti-skeptical hinge proposition, which could result from an inference, is exempt from closure principles. Since he cannot evoke acquisition processes or revisability to support the non-belief reading, his Wittgensteinian solution to the skeptical paradox remains essentially incomplete. We require an understanding of why, for instance, the dogmatist is incorrect to identify a warrant transmission to hinge propositions (Pryor 2004).

## 6 The revisability of the über hinge commitment

We have shown why Pritchard's characterizations of hinge commitments do not exempt them from closure<sub>RKH</sub>. The non-belief reading of hinge commitments is therefore unmotivated. Given the phenomenal similarity between hinge commitments and ordinary beliefs, the non-belief reading is further compromised by this conclusion.

Pritchard could reply that although the key features of hinge commitments do not efficiently exempt them from closure<sub>RKH</sub>, they are phenomenally significant so that a non-belief reading has *explanatory* advantage over alternative accounts of hinge commitments. Thus, his anti-skeptical solution would remain defensible because of the explanatory power of the non-belief reading.

In this section, I show that the non-belief reading lacks the purported explanatory power, namely, that it is false with respect to one substantial feature ascribed to hinge commitments. In fact, not only are particular personal hinge commitments revisable<sub>1</sub>, the über hinge commitment that one is not systematically mistaken can also be responsive to evidential changes.

Consider the following scenario:

(CHAOS) Sam has grown up in a world that is internally identical to ours. One day, as he wakes up, he sees his hands miraculously disappear. His bed turns into a river, on which people walk toward him, calling him by a different name. After a while, the world returns to normal. The same kinds of events recur several times, differing in their details. Eventually, not a single physical object that Sam could discern remains.

(CHAOS) does not specify whether Sam has always been a brain in a vat or has become one only recently. It is also open to our description that Sam is only experiencing an unexpected and irreversible illusion or that the world in which he lives has been miraculously modified. Either way, it can be rationally acceptable for Sam, the victim of this chaotic situation, to believe that his opinions about the world are systematically mistaken. Suppose that he does: Sam reacts to his evidential situation by conceding that he has been systematically mistaken about the world. The über hinge commitment, therefore, is revised.

The precise content of Sam's experience is inessential. (CHAOS) requires only the conceivability of an internally incoherent and chaotic world. Wittgenstein has considered similar but less radical scenarios. For example, if one is contradicted and told that a person's name is not what one has always known, one loses the foundation of all one's judgments (*On Certainty*, §614). Admittedly, such experiences "drag everything with it and plunge it into chaos." This consequence, however, suggests exactly the evidential revisability<sub>1</sub> of the über hinge commitment. The fact that the entire building would tragically collapse if the foundation were undermined does not logically entail that the foundation itself is protected from attack. We live in an internally coherent world, but the basis of our epistemic system is not *ipso facto* proof against extreme counterevidence.

One's first impression of (CHAOS) might be that the scenario is contradictory. If Sam rationally revises his über hinge commitment, should the decision not be based on evidence? As Wittgenstein notes, if the result is produced on an evidential basis, then something must be presupposed as certain. In this respect, one could object that words such as "evidence" or "reason" would be meaningless if one is systematically mistaken.

This objection, however, misunderstands our scenario (CHAOS). Sam's revision need not entail the *post hoc* propositional self-knowledge that "I am systematically wrong." The revision need not assume the form of a new belief. Instead, Sam may no longer remain an ordinary cognizer in our sense. His revision could well be an *epistemic suicide*—the refusal to credit any "evidence" and the suspension of all judgment—committed to the sight of chaos nearly impossible to comprehend. To recognize chaos,

apparently, one need not possess a further rational basis. It suffices to recognize that one's fundamental pieces of evidence no longer fit together.

Some clarifications are now in order to further defend our reading of (CHAOS).

First, (CHAOS) is not an orthodox skeptical scenario. An orthodox skeptical scenario, such as brain-in-vat and Cartesian demon cases, presents a hypothetical situation that is subjectively indistinguishable from our typical situations. It purports to show that such a situation is possible, given our internal experience, and suggests that we may thereby have no knowledge. (CHAOS), by contrast, features a world that is clearly distinguishable from ours. Another difference is that (CHAOS) does not address the issue of how *we* could have knowledge, given the possibility of massive deception. The victim of such a chaotic world need no longer doubt but only live with the miserable fact that nearly nothing can be known.

Although it suffices, for the present purpose, to exhibit a case in which a cognizer revises the über hinge commitment, one can object that the revision is illegitimate. If Sam can commit epistemic suicide, why can we not do so in our ordinary world? The problem is that such a suicide in the ordinary world is not *epistemic*. Revisability is introduced by Pritchard to explain epistemic responsiveness. A radical revision of one's über hinge commitment within our ordinary world, however, does not respond to any evidential change, so it does not threaten Pritchard's account. In (CHAOS), by contrast, Sam is not revising his über hinge commitment out of nowhere. His revision is rationally acceptable. Rational acceptability is a weak notion of rationality. It is satisfied whenever a subject is not totally irrational regarding his belief or action. The concept is therefore weaker than rationality simpliciter or rational responsibility. Generally, when a person is considered rationally responsible to believe *p*, he would be irrational not to believe *p*. By way of contrast, the rational acceptability of believing *p* is compatible with one's being rational in believing not-*p*. In (CHAOS), it is rationally acceptable for Sam to revise his über hinge commitment; nevertheless, he can also be rational if he retains the commitment and interprets his experience otherwise, e.g., by supposing that he is suffering from a severe hallucination or witnessing miracles. Situations in which we can be rational in both ways often occur when our evidence is indeterminate regarding the truth of a proposition or when we lack enough practical reasons to make a decision. With inconclusive evidence, for instance, a detective can suspect that someone is a criminal, but he can also consider him innocent. In view of the detective's evidential situation, both attitudes can be rational.

One might object that the notion of rational acceptability makes little room for a genuine revision of the über hinge commitment. Our concept of rational acceptability is perhaps overly permissive and has little epistemic significance. As alternative interpretations are available, why not believe instead that one is experiencing a severe hallucination, going mad, or witnessing a series of miracles? Such attitudes, it might be argued, are more likely to be truth-conducive. To the extent that epistemic suicide is clearly not the best option, it may not be rationally acceptable after all.

The major intuition underlying this objection is that it is less rational for Sam to commit epistemic suicide than to adopt alternative interpretations, and as a result, the suicide does not meet the standard of "rational acceptability." This intuition can be articulated in various ways to support the above objection. The least plausible would be to stipulate that whenever a choice is the most truth-conducive, given one's

evidential situation, no other choice can be rationally acceptable. In fact, one may not always have immediate access to one's evidential status; if the detective pauses for a moment of reflection, he might indeed find it more reasonable to consider the person innocent. This does not imply, however, that if the detective held the person as a suspect, his attitude would be so irrational that it is not even a candidate for epistemic evaluation—thereby becoming rationally unresponsive in Pritchard's sense.

Of course, the objection that our concept of rational acceptability is overly permissive can be spelled out differently. Instead of proposing a principle of rationality that qualifies only the best epistemic choice, one could argue that, even in (CHAOS), epistemic suicide is substantially worse than alternative attitudes, so it is not sufficiently rational in any epistemically interesting sense. A direct response to this objection is to analyze the concept of rationality in detail, a task that may be too complex for this paper. Fortunately, there is a much less contestable approach to (CHAOS) that equally fits our purpose.

When Pritchard discusses revisability, a customary situation is one in which a subject reasonably revises his belief. What the rationality of such a revision presupposes in turn is the idea that the belief that is eventually revised can be positively favored or negatively suspected, depending on changes in the subject's evidential situation. In particular, when the target belief is evidentially less favored, its revision is also more reasonable. This decrease in evidential support for the belief can accumulate to the point where revision of the belief becomes *genuinely* reasonable. Now, if the über hinge proposition is not at all responsive to rational considerations, as Pritchard would argue, then it would be impossible for one's über commitment to be evidentially favored or degraded in the slightest degree.

However, even if we grant that Sam's epistemic suicide never meets the standard of genuine rationality, the suicide is nevertheless *more* rational in (CHAOS) than it is when committed in the ordinary world. There is a clear sense in which Sam is more reasonable than us if we were to both commit suicide. Such a difference in the *degree of rationality* already implies that the über hinge commitment is in principle responsive to evidential changes. This is compatible with the possibility that the revision of the über hinge commitment can never be genuinely reasonable as well as with the possibility that epistemic suicide turns out to be the worst strategy in any scenario.

The above objection can be pursued further. If we concede the possibility that epistemic suicide never meets the standard of genuine rationality, why can we not thereby regard the über hinge commitment as non-revisable in the strict sense? The answer is that we can. However, once we separate non-revisability in this strict sense from the unresponsiveness that is gradable, the basis of Pritchard's non-belief reading is essentially compromised. The reason for this is that the insufficient rationality of the epistemic suicide will no longer be attributable to the epistemic unresponsiveness of the über hinge commitment. Instead, the suicide will be insufficiently rational only because there is *in fact* no situation in which the evidential chaos is radical enough to render the suicide and alternative attitudes equally (ir)rational. Put another way, the strict non-revisability of the über hinge commitment would then be due only to a somewhat arbitrary fact about the limit of our evidential situation rather than a principled property of the über hinge commitment itself. Additionally, although we granted, for the sake of argument, that alternative attitudes in (CHAOS) are much

more rational than suicide, it is controversial to claim that suicide can never be equally rational in *any* radical variation of (CHAOS). The explanation that one is going mad or experiencing severe hallucinations, for instance, makes sense only when there remain a sufficient number of phenomenal regularities to which one can refer. This, however, is not how we presented (CHAOS). The scenario is strange and tricky, indeed, but Pritchard's proposal will be critically limited if it ends up requiring that we discard a group of conceivable, albeit radical, epistemic situations.

Apart from the rationality of the epistemic suicide, one might also attack (CHAOS) with the Wittgensteinian thesis that rational evaluation cannot be universal. Wittgenstein emphasizes that the very game of doubt presupposes certainty, a view which Pritchard repeatedly appeals to as the "locality thesis" of rational evaluation (*On Certainty*, §115; Pritchard 2016: p. 66). Regardless of whether Pritchard is postulating the thesis as an independent argument or as a conclusion that follows from his non-belief reading, if one sides with Wittgenstein, one is likely to reject the suicide in (CHAOS) for contradicting the locality of rational evaluation.

Instead of confronting the locality thesis, again, (CHAOS) can be assigned a weaker reading to avoid the charge. In fact, although we initially presented Sam's revision as a *complete* epistemic suicide, the revision is more precisely an evaluation of Sam's opinions about "the external world." This evaluation can still be grounded—in Wittgenstein's sense—in an extremely local perspective, *viz.*, Sam's first personal self-awareness. Indeed, even if Sam considers himself systematically mistaken about the world, he nonetheless retains access to Platonic mathematical truths and Cartesian self-knowledge. Being systematic comes in degrees. One can be systematically mistaken in geography. One can also be systematically mistaken in both geography and biology. The method of doubt in Descartes' *Meditations* illuminates exactly how one can suspend judgment in an increasing number of areas until one's epistemic basis reduces to *cogito*. In this process, doubt always presupposes certainty. External-world skepticism need not consist in a "doubt that doubted everything" (*On Certainty*, §450).

We introduced epistemic suicide as the refusal to credit any further evidence, an attitude that is not accompanied by the explicit idea that "I am systematically mistaken." Now, because some certainties can nonetheless remain after suicide, it is possible for Sam to entertain the thought, "I am systematically mistaken about the world." Here, one might want to object that if no opinion about the external world survives, Sam's utterance of "world" would simply be meaningless. However, this is not the case. Unlike in Putnam-style brain-in-a-vat scenarios, "world" and "mistake" are quite general notions that do not apparently require an explicit causal reference history as do words like "brain" and "vat." Because Sam grows up in a world internally identical to ours, he would understand "world" and "mistake" sufficiently similar to the way we would. Therefore, when he claims, "I have been systematically mistaken about the world," we understand him as revising the über hinge commitment rather than pronouncing senseless syllables. This would be obvious if we complete the scenario of (CHAOS) by specifying that Sam has actually been a brain in a vat since the day of his birth and that his chaotic experience is caused by a breakdown of the machine that sends signals to his brain. In this version of (CHAOS), although Sam's language may be quite different from ours, his statement, "I have been systematically mistaken about the world," would remain essentially unaffected.



To these developments of (CHAOS), Pritchard could object that if we relativize the notion of being systemic, Sam would be revising a personal, not an über, hinge commitment. “I am not systematically mistaken” is considered an über hinge commitment only because it underlies *all* our cognitive performances. If Sam could still rationally endorse mathematical propositions and *cogito* thoughts, he would not be revising his über hinge commitment. This objection, unfortunately, counters Pritchard’s own anti-skeptical strategy. The skeptical paradox presupposes that we lack rational support for our commitment to the existence and predictability of the *external world*. Pritchard’s solution accordingly relies on the unresponsiveness of this hinge commitment, be it über or personal. Therefore, if he agrees that this hinge commitment is personal and thus revisable, hinge epistemology would lose all its alleged anti-skeptical force. In this respect, the epistemic suicide of Sam in (CHAOS) need not be complete to threaten our hinge commitment to the external world.

We have argued that the über hinge commitment is evidentially revisable<sub>1</sub>. A subject can be systematically mistaken in multiple areas. If he encounters a situation that suggests that he is completely mistaken, he can reasonably commit epistemic suicide. Even if the suicide never rises to the level of full rationality, it is more rational in (CHAOS) than in our ordinary world. In other words, the über hinge commitment tracks one’s evidential situations, as do personal hinge commitments and ordinary beliefs. Hence, the non-belief reading is false regarding an allegedly essential feature of hinge commitments.

Despite the issues raised here, proponents of the non-belief reading might insist that hinge commitments and ordinary beliefs are sufficiently distinct with respect to revisability. Recall that we granted to Wittgenstein and Pritchard that hinge commitments are not revisable<sub>2</sub>; that is, they are not revisable through mere hypothetical thought of alternative scenarios. Ordinary beliefs, in contrast, can be reasonably revised with “what if” questions by cautious agents. One could argue, therefore, that a distinction in revisability<sub>2</sub> already sustains the thesis that hinge commitments differ from ordinary beliefs regarding the general concept of revisability. Unfortunately, the non-belief reading will be considerably unsound if based only on a difference in revisability<sub>2</sub>. Ordinary beliefs are primarily revisable<sub>1</sub>. Few of us are suspicious doubters in everyday life, and we normally revise our beliefs only after obtaining new evidence. Pritchard is also unlikely to be satisfied with the above defense because he is referring to revisability<sub>1</sub> when he writes that “it does not make sense for an agent to believe that *p* while taking herself to have overwhelming reasons for thinking that *p* is false” (Pritchard, 2016: 90).

## 7 Conclusion

In this paper, I rejected Pritchard’s non-belief reading of hinge commitments as a solution to the skeptical paradox involving closure principles. Hinge commitments and ordinary beliefs are phenomenally similar. Therefore, to argue that hinge commitments and beliefs are sufficiently different so that closure principles for knowledge-apt beliefs do not apply to the former, one must show why the characteristic features of hinge commitments exempt them from closure principles. All of Pritchard’s arguments

for the non-belief reading fail the task. The observation that hinge commitments are not acquired through any rational process exempts them from  $\text{Closure}_{\text{RK}}$  but not from  $\text{Closure}_{\text{RKH}}$ . Epistemic non-revisability is also compatible with this generalized version of the closure principle. Although epistemic inertia arguably explains why closure does not apply to hinge commitments, this feature has not been independently argued for by Pritchard and easily renders his non-belief reading redundant.

Furthermore, Pritchard's non-belief reading is mistaken regarding the revisability of hinge commitments. Similarly to ordinary beliefs, hinge commitments track our evidential status. Due to the *actual stability* of our experience, hinge commitments appear to be rationally unresponsive; still, extreme situations such as (CHAOS) reveal how our über hinge commitment can be evidentially degraded. Although it is controversial whether such degradation amounts to genuine rational revisability, the idea that the über hinge commitment is in principle unresponsive to evidence is untenable. Our interpretation of (CHAOS) therefore offers a new perspective to critically assess the general idea that our relations to hinge propositions are non-epistemic (cf. Moyal-Sharrock 2004, 2016; Schönbaumsfeld 2016; Stroll 2005).

One could perhaps still elaborate an alternative non-belief account of hinge commitments. As we observed, similarity is a matter of degree, and any two notions can have some discrepancies. To establish that two concepts are effectively distinct, therefore, one must show that they are different enough with respect to the relevant task. In light of our discussion, unfortunately, the prospect for a non-belief reading that solves the skeptical paradox is dim. Pritchard concedes that hinge commitments and ordinary beliefs are phenomenally alike, and that people often take themselves to hold beliefs in the existence of an external world. This undercuts the non-belief readings according to which our hinge commitments are not propositional attitudes. One might thus hope to follow Pritchard by further appealing to acquisition process and epistemic responsiveness. The discrepancies between hinge commitments and ordinary beliefs in these regards, if any, are yet shown to be irrelevant to the closure-based skepticism. Hence, an alternative non-belief reading of hinge commitments that is epistemically interesting is not immediately forthcoming.

Our criticisms do not imply that Wittgensteinian hinge epistemologies are doomed to failure against skepticism. The closure-based paradox is one reconstruction of the skeptical challenge, and the non-belief reading is also one approach to hinge propositions. Despite the revisability<sub>1</sub> of the über hinge commitment, its non-revisability<sub>2</sub> remains intact. Except for the brief remark on Descartes' *Meditations*, our objections are compatible with the thesis that questioning one's über hinge proposition is completely irrational in a subjectively coherent world such as ours. Nevertheless, we have posed certain constraints on how one can develop a Wittgensteinian anti-skeptical hinge epistemology: because an external-world skeptic can conceivably retain mathematical and introspective knowledge, he is not "doubting everything." The idea that the very game of doubt presupposes certainty—the locality thesis of rational evaluation—needs additional support to refute external-world skepticism.

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