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Skepticism

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In everyday life, we think of skepticism as the position of a stubborn person who has higher epistemic standards than others. Hence, the skeptic is someone who defends extravagant ideas. Some skeptics may deny that climate change is real, while others claim that the first moon landing did not take place. Contemporary philosophers think of skepticism in a different way. In their view, skepticism is the conclusion of a paradoxical argument about epistemic statuses like knowledge and reasons. A paradoxical argument is a logically valid argument that, starting from seemingly plausible premises, reaches an absurd conclusion. We introduce two skeptical arguments. The *regress argument* purports to show that we lack reasons to believe any claim whatsoever because the search for those reasons inevitably leads to an infinite regress. The *underdetermination argument* seeks to prove that we lack reasons to believe that there are chairs, trees, other people, and so on; it supports that conclusion by citing skeptical hypotheses, including the idea that we might be dreaming (Descartes 1641) or the suggestion that we could be brains in a vat connected to a supercomputer that mimics the pattern of neural activity that would be produced if we were perceiving external objects (Putnam 1981).

History

In classic Greek, ‘skeptic’ (*skeptikós*) means ‘inquirer’. Rather than defending an eccentric position, the skeptic was someone who steadily searched for truth. To that end, the skeptic employed argumentative techniques to examine different opinions. Those techniques enabled the skeptic to realize that she lacked good reasons to believe various claims about the nature of reality, leading her to a state of mental indecision known as ‘suspension of judgment’ (*epoché*). Since that state induced another state of freedom from distress (*ataraxía*), ancient skepticism had ethical implications (Sextus Empiricus ca. AD 160–210).

Skeptical arguments played an important role in Europe during the Early Modern period, when the Reformation gave rise to widespread religious disagreement and the development of the new physical science was accompanied by uncertainty about the cognitive powers of the human mind (Popkin 2003). During that period, philosophers put forward skeptical arguments with new twists. Some radicalized previous forms of doubt. For example, Descartes (1641) urged that there are no sure signs that we are not dreaming and suggested that an almighty God could deceive him about seemingly simple arithmetical claims. Hume extended skepticism to any question of fact, including the apparently obvious inductive claim that the sun raises every morning (Hume 1739–1740). Many philosophers of that period thought of skepticism as a phase of thought that should be overcome before one could lay the firm foundations of science (Descartes 1641; Kant 1781/1787).

Although contemporary philosophers still discuss skeptical arguments, skepticism has now acquired a new meaning. Contemporary philosophers typically see skeptical claims as absurd conclusions of paradoxical arguments, that is, logically valid arguments that start from seemingly plausible premises but lead to puzzling conclusions (Greco 2000; Pritchard 2012; Pryor 2000; Stroud 1984). It is often claimed that those paradoxical arguments are the upshot of our attempts at understanding the workings of key epistemic concepts like KNOWLEDGE and REASONS. Thus, when contemporary philosophers discuss skeptical arguments, it is unlikely that they are recommending a way of life. They are more likely suggesting that a certain theory of knowledge, reasons, or other epistemic statuses has an important flaw that needs to be fixed.

Core concepts

Skeptical claim

It is a proposition that contradicts one or more propositions that are widely accepted within a community. Hereafter, we shall use the words 'claim' and 'proposition' interchangeably. When the relevant community includes most adult humans, the skeptical claim contradicts *common sense* (Moore 1925). In philosophy, the most widely discussed skeptical claims concern epistemic statuses like humans' (alleged) lack of *epistemic reasons* and *propositional knowledge.*

Epistemic reason

It is a consideration that counts in favor of the truth or falsity of a proposition. To illustrate, suppose that you have read a statistical report that says that it is more likely for smokers than for non-smokers to suffer from cancer. In this case, you have an epistemic reason for the truth of the proposition <It is more likely for smokers than for non-smokers to suffer from cancer>. If your belief is appropriately based on (sufficiently good) epistemic reasons, your belief is *rational* or *rationally supported*. Hereafter, we shall abbreviate 'epistemic reasons' to 'reasons'. Skepticism about reasons is the claim that we lack reasons to believe propositions that common sense holds true.

Propositional knowledge

It is the knowledge that we normally attribute with sentences of the form '*S* knows that *p*', where '*S*' refers to a subject and '*p*' denotes a proposition. For simplicity, we shall refer to 'propositional knowledge' as 'knowledge'. Skepticism about knowledge is the claim that we lack knowledge of propositions we commonly take ourselves to know. It is commonly accepted that at least some forms of knowledge require the possession of reasons. If *S* knows that *p*, it follows that *S* has reasons to believe that *p*. Hence, skepticism about reasons can lead to skepticism about some forms of knowledge. The converse is not true, though. If knowledge requires the satisfaction of other requirements, like *believing the truth*, skepticism about knowledge does not lead to skepticism about reasons. We will focus on skepticism about reasons. However, many of our remarks apply to skepticism about knowledge and other epistemic statuses.

Scope of skepticism

Skeptical claims differ in their *scope*. *Universal skepticism* holds that we lack reasons to believe *any* proposition whatsoever. *Radical skepticism* contradicts our possession of reasons to believe *whole classes* of propositions, but not all of them. For example:

- Skepticism about the external world: We lack reasons to believe any proposition about entities external to our minds. For instance, we lack reasons to believe that there are chairs, trees, and other people.
- Moral skepticism: We lack reasons to hold beliefs about moral values and norms. For example, we lack reasons to believe that it is bad to torture other human beings or that we have certain rights and obligations.

Epistemic principles

Skeptical arguments always invoke epistemic principles. Epistemic principles are attempts at spelling out some norms that are allegedly implicit in our everyday epistemic practices, like the practice of evaluating whether someone has reasons to believe a proposition. Since those norms allegedly govern our employment of everyday epistemic concepts, skeptical arguments result from our attempt at understanding—in a very general way—the workings of our everyday epistemic concepts. Skeptical conclusions follow when one applies epistemic principles across the board and contends that human beings cannot comply with the norms articulated by those epistemic principles.

Hereafter, we show how one can use different epistemic principles to reach skeptical conclusions. The *regress argument*—with roots in Greek philosophy—leads to universal skepticism. The *underdetermination argument*—with roots in Greek and Modern philosophy—leads to radical skepticism about whole classes of propositions.

The regress argument

Imagine a police commander who is investigating who stole a sculpture from the Anthropology Museum in Mexico City (for a similar example, see Feldman 2003). At some point, his assistant presents the hypothesis that Pedro Guzmán is the culprit. To back up the hypothesis, the assistant tells the following story:

> "Pedro Guzmán knew that the guards normally get distracted during the guard switch at midnight. So, he broke into the museum at midnight and extracted the sculpture".

Does the police commander have a reason to believe that Pedro Guzmán is the culprit? Suppose that the police commander did not believe the story. In that case, the police commander would not have a reason to believe that Pedro Guzmán is the culprit. We can spell out this verdict with an epistemic principle:

Belief Principle: If a subject, *S*, has a reason to believe that *p*, then *S*'s reason is another belief.

Suppose now that, although the police commander did believe the story, the assistant made it up to impress their boss. Once again, the police commander would not have a reason to believe that Pedro Guzmán is the culprit. After all, a made-up story is not backed up by a reason. These remarks lend support to another epistemic principle:

Only Rational Beliefs Provide Reasons: If a belief is a reason for another belief, the second belief is backed up by a reason.

The two principles are initially plausible. However, if one applies both principles across the board, one reaches universal skepticism.

Suppose that a subject, *S*, has a Reason 1 to believe that *p* (Belief 1).

Given the **Belief Principle**, Reason 1 is another belief (Belief 2).

Given that **Only Rational Beliefs Provide Reasons**, Belief 2 is backed up by a Reason 2.

Given the **Belief Principle**, Reason 2 is another belief (Belief 3).

Given that **Only Rational Beliefs Provide Reasons**, Belief 3 is backed up by a Reason 3.

And so on…

The conjunction of the two principles leads to a regress. That regress can have three undesirable outcomes known as 'Agrippa's trilemma':

Infinite regress. We are launched in an *infinite regress* because we never reach a final reason for the original belief (Belief 1). Nevertheless, human beings have limited cognitive resources that prevent them from having an infinite stock of beliefs. So, *S* lacks reasons to hold Belief 1.

Ungrounded belief. At some point, *S* reaches a belief that is not backed up by a reason. Given that **Only Rational Beliefs Provide Reasons**, however, that final belief cannot be a reason for another belief. So, *S* lacks reasons to hold Belief 1.

Circle. At some point, the chain of reasons circles back to a prior belief. For example, *S* moves from Belief 1, through Belief 2, Belief 3, Belief 4… to Belief 1 again. However, it seems that a belief cannot justify itself. For instance, suppose that you ask me why I believe that skepticism is an interesting topic. If I just repeated 'Because skepticism is an interesting topic', that would not be a reason for my original belief.

We could have selected any other belief held by any human subject. So, the regress argument supports universal skepticism about reasons.

The underdetermination argument

To better understand the underdetermination argument, we must first introduce *skeptical hypotheses*. Descartes (1641) imagined that an evil demon could systematically deceive him,

leading him to have massively false beliefs. Subsequent philosophers have invoked variations of the brain-in-a-vat hypothesis (Putnam 1981). Imagine that a group of evil scientists captured you while you were sleeping, drugged you, and removed your brain, which they kept alive in a vat with nutrients. After that, they connected your brain to a supercomputer that now mimics the pattern of neural activity that would be produced if you were perceiving external objects. So, when it seems to you that you are seeing a zebra, you are actually being stimulated by a supercomputer. More generally, all your experiences are non-veridical hallucinations that you cannot discriminate from the veridical experiences that you would have if you were perceiving external objects.

Let us say that a *skeptical hypothesis* is a description of a possible scenario in which 1) a subject, *S*, wrongly believes that *p*, but 2) *S* cannot detect that she is in that scenario. In the two prior examples, we have *radical* skeptical hypotheses that cast doubt, not on a single proposition, but on a whole class of propositions.

If we want to reach a skeptical conclusion, it is not sufficient to formulate a radical skeptical hypothesis. After all, the claim that a skeptical scenario is possible does not entail that we lack reasons to believe a whole class of propositions about the external world. Thus, we still need to identify an epistemic principle that exploits radical skeptical hypotheses to reach the skeptical conclusion. Interestingly, we can identify those principles by reflecting on everyday examples.

In logic, two propositions *p* and *q* are contraries just in case the truth of *p* entails the falsity of *q*, or vice versa. For instance, the propositions <That is a zebra> and <That is a crocodile> are contraries (assuming that the two tokens of 'that' co-refer). Suppose now that you form the belief <That is a zebra>. Suppose also that it is obvious to you that <That is a zebra> and <That is a crocodile> are contraries. Imagine now that you lack reasons that favor, on balance, the zebra proposition over the crocodile proposition. For instance, you do not know that zebras look different from crocodiles. Therefore, it seems to follow that you lack reasons to believe the proposition <That is a zebra>.

Everyday examples of this sort lend support to the **Underdetermination Principle**:

Underdetermination principle: If it is obvious to a subject, *S*, that two propositions *p* and *q* are contraries, and *S* lacks reasons that favor, on balance, *p* over *q*, then *S* lacks reasons to believe that *p*.

Unfortunately, it suffices to apply the **Underdetermination Principle** to the denials of skeptical hypotheses to reach a radical skeptical conclusion. Suppose that you seem to see a zebra in plain view and lack reasons to doubt the deliverances of your senses. So, you form the belief in the proposition <That is a zebra>. Suppose now that it is obvious to you that <That is a zebra> and <I am a brain in a vat> are contraries (for the latter proposition can be rephrased as <I am a brain in a vat who is having a non-veridical hallucination of a zebra right there>). Now, it is hard to see how you could possibly have reasons that favor the zebra proposition over the brain-in-a-vat hypothesis. After all, the brain-in-a-vat hypothesis is designed in such a way that you cannot

detect that you are a brain in a vat. So, given the **Underdetermination Principle**, you lack reasons to believe the proposition <That is a zebra>.

We can formulate the above reasoning as a *reductio ad absurdum:*

Premise 1. You have reasons to believe <That is a zebra> [commonsense assumption].

Premise 2. It is obvious to you that <That is a zebra> and <I am a brain in a vat> are contraries [plausible assumption].

Premise 3. If it is obvious to you that <That is a zebra> and <I am a brain in a vat> are contraries, and you lack reasons that favor, on balance, the zebra proposition over the brain-in-a-vat hypothesis, then you lack reasons to believe <That is a zebra> [application of **Underdetermination Principle**].

Premise 4. You lack reasons that favor, on balance, the zebra proposition over the brain-in-a-vat hypothesis [from the design of the brain-in-a-vat hypothesis].

Conclusion. So, you lack reasons to believe <That is a zebra>.

The underdetermination argument does not support universal skepticism. After all, it does not apply to *any* belief. However, it can be used to defend a radical skeptical conclusion about a whole class of propositions concerning external entities like chairs, trees, and other people. To that end, it suffices to focus on cases where the subject seems to have everything that they need to have reasons to believe some proposition. In our example, this involves seeming to see an animal in plain view and lacking any reasons for doubt. If that is an ideal case to have reasons to believe a proposition about an external entity, and a skeptical argument applies to that ideal case, a similar argument should also apply to non-ideal cases (Stroud 1984). Therefore, the underdetermination argument generalizes to the whole class of propositions concerning the external world.

Skepticism and epistemic practices

The prior discussion has shown that one can study skepticism without introducing a (real or hypothetical) skeptic who defends extravagant claims. Indeed, the two skeptical arguments rely on epistemic principles that purport to codify norms that allegedly govern *our own* everyday epistemic practices. If we are indeed committed to those epistemic principles, then our own everyday epistemic practices have skeptical consequences. As a result, it would be irrelevant to dismiss the skeptical claims *just because* they strike us as ‘absurd’. After all, the skeptical arguments have already shown their absurdity. If we want to dismiss skepticism, we need to reject one or another premise that leads to the skeptical conclusions. This exercise will enable us to improve our understanding of the norms that govern our own everyday epistemic practices and the epistemic concepts at issue in those norms.

Questions, controversies, and new developments

There have been several influential strategies to block the regress argument and the underdetermination argument.

Responses to the regress argument

Responses to the regress argument are attempts at showing that one or another outcome of Agrippa's trilemma does not lead to universal skepticism.

Infinitism holds that human beings with finite cognitive resources can have an infinite number of beliefs. To that end, beliefs should not be cognitively too demanding (Aikin 2011; Klein 1999; Peirce 1931–1958). For example, beliefs could be understood as dispositions. Roughly, a subject, *S*, *dispositionally believes* that *p* just in case *p* is easily inferable from *S*'s explicit beliefs (Harman 1986) or *S* is ready to act on the truth of *p* (Dennett 1978). One can then have an infinite number of dispositional beliefs. For instance, one can dispositionally believe that 2 is greater than 1, that 3 is greater than 1, that 4 is greater than 1, and so on.

Few philosophers have found this response plausible. A prominent objection relies on a putative connection between one's believing that *p* and one's understanding of sentences that express *p*. If one has an infinite number of beliefs, some of the sentences that express their contents will be too complex for human beings to understand. Now, if one does not understand a sentence that expresses the proposition that *p*, one does not have the belief that *p*. Therefore, human beings do not have an infinite number of beliefs (Audi 1993).

Foundationalism provides another type of response to the regress argument. To that end, it rejects the **Belief Principle**. In this view, at least some of our beliefs are backed up by reasons that are not beliefs. In other words, there are non-doxastic reasons. Hence, we should introduce a principled distinction between two kinds of beliefs. *Basic beliefs* are beliefs that are supported by non-doxastic reasons; the regress stops with basic beliefs. *Non-basic beliefs* are rationally supported through their inferential relations to basic beliefs. Therefore, one can think of our belief systems as having the structure of a pyramid, with basic beliefs at the base and non-basic beliefs on top.

Foundationalism must answer two questions:

Scope: Which beliefs count as basic?

Transmission: How is the rationality of basic beliefs transmitted to non-basic beliefs?

There are as many forms of foundationalism as there are answers to these questions.

Classical foundationalists imposed very strict requirements on basic beliefs. For example, some suggested that basic beliefs should be immune to radical doubt (Descartes 1641). Since very few beliefs can be immune to radical doubt, classical foundationalism does not offer a large enough supply of basic beliefs to rationally support all non-basic beliefs (Alston 1976).

In the recent literature, most authors have dropped the requirement of immunity to radical doubt. Some have suggested that basic perceptual beliefs are rationally supported by experiences that seem to 'present' external world propositions as true (Huemer 2001; Pryor 2000; Tucker 2013). An alternative view holds that basic beliefs are those beliefs that originate from belief-independent cognitive processes that produce a higher ratio of true beliefs than false beliefs (Goldman 1979).

According to classical foundationalism, non-basic beliefs should be connected with basic beliefs via deductive links. Unfortunately, this view seems overly restrictive. Hence, contemporary foundationalists include induction and inference to the best explanation as legitimate forms of inference to rationally support non-basic beliefs (Alston 1976; Audi 1993).

Coherentism offers a different response to the regress argument. On this view, although the regress can include chains with iterations of the same belief, the circles so formed need not prevent us from having rationally supported beliefs. One has reasons for a belief that *p* if one's belief that *p* 'fits' or 'is congruent' with one's remaining beliefs. When that happens, one has a *coherent* belief system. For coherentism, the regress argument—and foundationalism, for that matter—goes wrong in assuming that rational relations among beliefs proceed linearly and in a single direction. According to coherentism, we should rather think of our belief systems as networks (Quine & Ullian 1978). As a result, the main task for coherentism is to clarify what it takes for a network of beliefs to be coherent. 'Coherence' typically includes the absence of logical inconsistencies and the existence of explanatory relations among beliefs (BonJour 1985; Lehrer 1974; Sellars 1973).

Coherentism is not without problems, though. A difficulty arises from our own cognitive limitations. Any human being holds logically inconsistent beliefs that do not prevent them from having rational beliefs. For example, if Lois Lane does not know that Superman is Clark Kent, she may believe (at the same time) that Superman can fly, and that Clark Kent cannot fly. Yet, this unnoticed inconsistency does not seem to prevent Lois Lane from having reasons to hold many other beliefs, like the belief that she exists (Feldman 2003). Furthermore, coherentism faces the so-called 'isolation problem'. By focusing solely on internal relations within a belief system, coherentism neglects the role of perception to gain reasons for belief. Imagine a paranoid subject whose beliefs are radically cut off from the external world but still manages to maintain a coherent belief system. If coherentism is true, our paranoid subject's beliefs are rational. Several authors find that consequence unpalatable (McDowell 1996).

The problems faced by both foundationalism and coherentism have led many authors to develop 'hybrid views' (Haack 1993; McDowell 1996). Those views try to combine the strengths of both approaches to solve problems faced by each view when taken in isolation.

Responses to the underdetermination argument

So-called 'relevant alternatives theories' reject the **Underdetermination Principle**. On their view, you can have reasons to believe that *p* even though, on balance, your reasons do not favor *p* over *all* the obvious alternatives to *p* (Austin 1946; Dretske 1971; Goldman 1976;

Pritchard 2010). In other words, your possession of reasons to believe that *p* only requires that your reasons favor, on balance, *p* over the *relevant* alternatives to *p*. In this context, 'relevant alternatives' refers to those possibilities that could easily obtain in the subject's circumstances.

Imagine that it is common to find crocodiles in your own environment. Suppose also that it is obvious to you that <That is a zebra> and <That is a crocodile> are contraries. Suppose now that you have reasons to believe the proposition <That is a zebra>. Intuitively, your reasons should favor, on balance, the zebra proposition over the crocodile proposition. It is, however, quite easy to comply with that condition. For instance, you probably know that only zebras have black and white stripes, that they have fur, and that their shape is very different from the shape of crocodiles. Suppose now that you are not in an environment where people are prone to be captured by evil scientists, who then put their brains in vats and connect them to computers, and so on. Hence, you do not need to have reasons that favor, on balance, the zebra proposition over the brain-in-a-vat hypothesis.

Relevant alternatives theories seem to dovetail with our everyday epistemic practices. Even in the sciences, where our epistemic norms are the most stringent, we do not expect scientists to give us reasons that speak against radical skeptical hypotheses.

Unfortunately, relevant alternatives theories are not without problems. It has been argued that our intuitions about the seemingly unreasonable demands of an epistemic principle do not show that that principle is false. More specifically, the *act of making a demand* may be unreasonable even though *the demand* itself stems from a true principle. As an analogy, think of cases where it would be rude to make a remark, even though that remark would still say something true. By parity of reasoning, the **Underdetermination Principle** could still tacitly govern our epistemic practices even though the requirements of action, cooperation, and communication lead us to ignore the demand of having reasons that are strong enough to favor external world propositions over radical skeptical hypotheses (Stroud 1984; see also DeRose 1995 and Vogel 1999 for further criticism).

Alternatively, if one endorses the **Underdetermination Principle** but still wants to avoid the radical skeptical conclusion, one is compelled to reject Premise 4: You lack reasons that favor the zebra proposition over the brain-in-a-vat hypothesis.

Some philosophers have suggested that we might have a priori reasons that favor external world propositions over skeptical hypotheses. An *a priori reason* is a reason that is not grounded in experience. Some authors have tried to derive a priori reasons from the types of inferences that we accept in everyday life. More specifically, they have extracted a number of rules of inference from those inferences and redeployed them to disregard skeptical hypotheses (Cohen 2010; Wedgwood 2013). Others have suggested that it is a priori rational to disregard skeptical hypotheses because, in so doing, we maximize our chances of attaining our epistemic goals, like forming more true beliefs than false beliefs (Wright 2004).

These views are controversial, though. Skeptical hypotheses concern contingent and specific states of affairs, like <I am a brain in a vat who is having a non-veridical hallucination of a zebra

right there>. In the absence of experience, it is unclear how one could have reasons that speak to the falsity of these contingent and specific states of affairs (Avnur 2012; McDowell 1996; Pritchard 2012; but see Hawthorne 2002).

Other philosophers have pointed out that, in our everyday epistemic practices, we do cite and accept perceptual reasons that speak to the falsity of skeptical hypotheses (Echeverri 2023; McDowell 2011; Neta 2009; Pritchard 2012; Williamson 2000). To illustrate, suppose that Ricardo calls me to inquire whether my colleague Lara is at work. I could answer Ricardo's question by taking a good look at Lara's office and saying: 'Yes, I can see that Lara is at work'. If my circumstances are favorable, this linguistic construction conveys a *factive reason*, namely, a reason that entails the truth of its propositional content. If I see that Lara is at work, it is a fact that Lara is at work. Since that fact would not obtain in a brain-in-a-vat scenario where I merely had a non-veridical hallucination of Lara, I do have at least one reason that favors the proposition that Lara is at work over the brain-in-a-vat hypothesis. If one takes these considerations at face value, one can have reasons that are better than the reasons that one would have in a skeptical scenario. This type of view is known as 'epistemological disjunctivism'. The label 'disjunctivism' comes from the need for an exclusive disjunction to state it: *Either* one has reasons that guarantee the truth of some external world proposition (as in the office scenario), *or* one merely seems to have those reasons (as in the brain-in-a-vat scenario).

A key problem for epistemological disjunctivism is to reconcile the idea that one can have factive reasons in favorable circumstances with the widespread intuition that those favorable circumstances are subjectively indiscriminable from skeptical scenarios (McDowell 2011; Pritchard 2012; Williamson 2000). Another problem concerns the (in)compatibility of epistemological disjunctivism with cognitive science. Some contend that epistemological disjunctivism is inconsistent with the way in which perceptual science individuates perceptual states, for perceptual science requires that one and the same fundamental type of mental state is common to veridical and non-veridical perception (Burge 2005). Defenders of epistemological disjunctivism have suggested that the incompatibility is unreal because perceptual states can be individuated in different ways. For psychological purposes, we may need to posit types of mental states shared by veridical and non-veridical perception. For epistemological purposes, though, we may need to introduce mental states that are only available in favorable circumstances (McDowell 2013).

Broader connections

Despite their abstract character, skeptical arguments bear interesting connections with various issues in cognitive science. We highlight three.

Foundationalists introduce non-doxastic reasons for belief. This view connects with current debates on the perception/cognition interface. If there are architectural marks that distinguish perceptual processes from cognitive processes, one could use those marks to develop an empirically informed account of basic beliefs (Block 2023; Lyons 2009). If basic beliefs are grounded in experiences that seem to 'present' certain contents as true, one may inquire into

the psychological underpinnings of the feeling of presence. Empirical findings on metacognition might be relevant to that end (Teng 2023).

Coherentists stop the regress by focusing on a subject's *entire* belief system. Given that any human being holds logically inconsistent beliefs, we might need to restrict the unity of analysis to proper parts of belief systems. Current research on fragmented belief systems might be used to offer a more realistic formulation of coherentism, where coherence requirements could be relativized to fragments of belief systems (Borgoni, Kinderman & Onofri 2021).

Defenders of epistemological disjunctivism have introduced perceptual reasons that guarantee the truth of some propositions. Rather than considering those perceptual reasons as involving purely epistemic modes of individuation of perceptual states, one could try to connect our reliance on factive perceptual reasons with embodied, embedded, enactive, or extended approaches to cognition (Carvalho 2021).

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