No Work for a Theory of Epistemic Dispositions

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Abstract

Externalists about epistemic justification have long emphasized the connection between truth and justification, with this coupling finding explicit expression in process reliabilism. Process reliabilism, however, faces a number of severe difficulties, leading disenchanted process reliabilists to find a new theoretical home. The conceptual flag under which such epistemologists have preferred to gather is that of dispositions. Just as reliabilism is determined by the frequency of a particular outcome, making it possible to characterize justification in terms of a particular relationship to truth, dispositions are accompanied by concrete, worldly manifestations. By taking true beliefs as the result, not of certain processes but of particular dispositions, these epistemologists have attempted to respond to the numerous obstacles to reliablism. Yet all this work has proceeded without regard to the wealth of contemporary work on the metaphysics of dispositions, making the new hope premature at best, ill-founded at worst. Combining contemporary dispositional accounts of justification with extant analyses of dispositions reveals that the latter is the case. The structural differences between epistemic justification and dispositions make it clear that not only should process reliabilism be abandoned, but the subsequent appeal to dispositions along with it.[1]

Keywords: Dispositions, Epistemic Justification, Process Reliabilism

1   Introduction

Recently there have been several proposals enlisting dispositions in a theory of epistemic justification.[2] Some of these projects capitalize on the connection between virtues and dispositions:

Ernest Sosa –

"To be epistemically justified in believing is to believe out of intellectual virtue" where "a subject S's intellectual virtue V relative to an environment E may be defined as S's disposition to believe correctly propositions."[3]

John Greco –

"A belief B(p) is epistemically justified for a person S if and only if B(p) is produced by one or more intellectual virtues of S" where intellectual virtues are "dispositions to reliably achieve some result."[4]

Other proposals emphasize the connection between an agent forming reasonable beliefs and the disposition to form such beliefs:

Maria Lasonen-Aarnio –

"Reasonable beliefs are formed and retained through the manifestation of knowledge conducive dispositions and abilities" and are "extensionally very close to justified beliefs."[5]

Even though there has been no shortage of proposals giving a significant role to dispositions, what has been neglected is how rival analyses of dispositions bear on these epistemological proposals. In this paper, I will evaluate how well these proposals fare when applied in light of contemporary work on dispositions. In Section 2, I further explicate the analyses of epistemic justification in terms of dispositions, explaining their motivation and how dispositions are thought to address challenges for process reliabilism. I then summarize the literature on dispositions in Section 3, separating proposals into four main rival views. In Sections 4 and 5, I combine these contemporary analyses of dispositions with the

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[2]By 'epistemic justification,' I refer to the notion of justification picked out by true natural language occurrences of "S is justified in believing that p."

[3]See Sosa (1991), p. 140 and 242.

[4]See Greco (2002), p. 302 and (2003), p. 469. It is unclear how Greco takes his views on epistemic justification to interact with natural language occurrences of "S is justified in believing that p." On the one hand, Greco says that epistemic justification, the terminology that many authors use to refer to the natural language use, is whatever it is that turns true belief into knowledge (p. 288), but this would be to deny that there are false justified beliefs. For Greco then, it seems that 'epistemic justification' does not coincide the natural language uses of 'S is justified in believing that *p*.' It might be then that 'subjective justification' does capture this sense since Greco says that being subjectively justified is being justified from the "knower's own point of view" (p. 303).

[5]See Lasonen-Aarnio (2010), p. 12 and Lasonen-Aarnio (2016 and Forthcoming). "Reasonable belief" is a technical notion — for more, see Section 2.2.

dispositional justification proposal to see if dispositions are actually conducive to solving the problems it was hoped they could remedy. I show that, regardless of the analysis of dispositions, a dispositional account of justification does nothing to repair the shortcomings of process reliabilism, ultimately concluding that there is no work for a theory of epistemic dispositions.

2   Appealing to Dispositional Justification

2.1   Challenges to Process Reliabilism

In response to process reliabilism, critics have developed a number of considerations that seem to show that reliabilism is out of step with the ordinary concept of justification. In order to illustrate these difficulties, let's use the following as a process reliabilist account of justification:

> **Reliabilist Justification** (RJ) – S's belief that p is justified iff S's belief that p is produced by a reliable process.

For simplicity's sake, let's consider a process reliable if it produces more true than false beliefs.[6] The first challenge to RJ demonstrates that reliable process formation is not sufficient for justification. Consider the following case:

> **Epistemically Serendipitous Brain Lesion**
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> A patient has an epistemically serendipitous brain lesion in that, as long as they have the brain lesion, it causes them to believe that they have a brain lesion. Because they find themselves with the belief that they have a brain lesion, they schedule an appointment for medical evaluation. After running several tests, the doctor mistakenly tells the patient that they do not have a brain lesion. The patient, however, cannot shake the belief that they do have a brain lesion and continues to truly believe they do despite the doctor's diagnosis.[7]

Even though the patient's brain lesion causes completely reliable beliefs, the patient's belief that they have a brain lesion is clearly unjustified. Thus, it appears that justification comes apart from reliability – there are beliefs that are produced by reliable processes that nevertheless are not cases of justified belief. In order to deal with this worry, the reliabilist will need to provide a strategy to rule out reliable processes like the epistemically serendipitous brain lesion. Let's call this the problem of excluding certain reliable processes.

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[6]This is a toy theory of reliability in comparison to Goldman's original thoughts on reliability, but it should be adequate to point out the difficulties for process reliabilism (See Goldman (1979), p. 11).

[7]This example due to Alvin Plantinga (1993), p. 199.

The second challenge to RJ shows that reliability is not even necessary for justification. Consider the following case:

New Evil Demon

Suppose that I have a counterpart in a possible world that is controlled by a Cartesian demon. Everything appears to my counterpart precisely as it appears to me and they have every reason to believe what I do in the actual world. Now, as it turns out, their belief-forming processes are completely unreliable due to the malevolence of the Cartesian demon.[8]

Even though my counterpart's beliefs are produced by unreliable processes, it nevertheless seems that their beliefs are justified, just as justified as mine are in the actual world. Thus, a further problem for process reliabilism is responding to the worry of justification sans reliable process.

A further challenge leveled at RJ is the question of which processes are relevant for judging reliability, the generality problem. Take a particular token instance of justification. If I look out my window at night and see a street lamp about fifty feet away, I am justified in believing that there is a street lamp outside. But depending on how we specify the process by which I came to believe that there is a street lamp outside, RJ will yield differing verdicts concerning whether I am justified in holding that belief. If the process is seeing large objects that are fifty feet away, a very reliable process, then RJ gives the verdict that the belief is justified. But if the process is seeing from fifty feet away at night, a quite unreliable process, then RJ holds that my belief is unjustified. The generality problem arises because it is unclear how to associate the token instance of justification with a particular process type. The generality problem asks why we should describe the process in question at one level of generality rather than another. If the process type is determined by the justificatory status of the belief, then process reliabilism is rendered viciously circular. Process reliabilism is supposed to give predictions about what beliefs are justified and unjustified, not rely on gerrymandered processes to fit the justificatory status of a belief. The process reliabilist thus needs to provide us with a method to specify the process type in advance if the generality problem is going to be resolved.[9]

2.2 Dispositional Accounts of Justification

Dispositions have been enlisted to answer each of the challenges to process reliablism. Ernest Sosa's account of justification is centered on the intellectual

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[8]This example due to Cohen (1984), p. 281.

[9]For a fuller explication of the generality problem, see Conee and Feldman (1998). For arguments that the scope of the generality problem is wider than just process reliabilism, see Comesana (2006) and Bishop (2010).

virtues. Intellectual virtues contribute to justification because they play a crucial role in helping believers attain true belief. Sosa's proposal is as follows:

> S's belief that p is justified iff S's belief that p is formed by an exercise of S's intellectual virtue[10]

Fortunately for our purposes, Sosa analyzes the intellectual virtues in terms of dispositions. Intellectual virtues are dispositions to have true beliefs and include many faculties and processes of central epistemological interest – perception, introspection, deductive reasoning, and memory.[11]

John Greco also appeals to dispositions to shore up reliabilist accounts of justification. Much like Sosa, Greco wants to give an account of justification in terms of the intellectual virtues and offers the following analysis:

> S's belief that p is epistemically justified iff S's belief that p is produced by one or more intellectual virtues of S[12]

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[10]See Sosa (1991).

[11]Ibid, p. 225. Here I have focused on the disposition-based view that Sosa gives in *Knowledge and Perspective*. I have focused on Sosa's early work as an exemplar for a dispositions-focused view of justification, a strategy it is clear that he is no longer satisfied with, opting instead for a view centered around competences and abilities. To be fair to Sosa, it must be acknowledged that his early work contained talk of competences and abilities as well, but that his more recent views have strayed from an account of the intellectual virtues explicitly in terms of dispositions to focus on abilities and competences instead. In *Knowledge in Perspective*, Sosa gives three summaries of his view, one in terms of dispositions, one in terms of ability, and one in terms of competence:

> A subject S's intellectual virtue V relative to an 'environment' E may be defined as S's **disposition** to believe correctly propositions in a field F relative to which S stands in conditions C, in 'environment' E. (Sosa (1991), p. 140.)

> Let us define an intellectual virtue or faculty as a **competence** in virtue of which one would mostly attain the truth and avoid error in a certain field of propositions F, when in certain conditions C. (Sosa (1991), p. 138.)

> An intellectual virtue may be viewed as a subject-grounded **ability** to tell truth from error infallibly or at least reliably in a correlated field. (Sosa (1991), p. 242.)

Sosa thus regarded competences, abilities, and dispositions as closely related in *Knowledge and Perspective*. In his latest work, however, Sosa shifts his focus to competence and ability, saying that it is not clear if dispositions suit the SSS structure of account he intends to give:

> It is not immediately obvious that dispositions generally, as opposed to competences specifically, still have that triple structure. But with a bit of stretching they can be made to share it. (Sosa (2015), p. 27.)

Sosa thus no longer takes dispositions to be particularly illuminating when discussing competence. General dispositions must instead be stretched and distorted a bit to fit his current understanding of the intellectual virtues, making Sosa's current view better characterized as focusing on competences and abilities. In his latest take on the New Evil Demon Problem, he barely mentions dispositions, opting to conduct the discussion in terms of competences instead .(See Sosa (Forthcoming), Chapter 5.) For more on the prospects of Sosa's current view, see the conclusion of this paper.

[12]See Greco (2002), p. 302.

Intellectual virtues are to be understood in terms of dispositions. For Greco, intellectual virtues are "reliable dispositions, or dispositions to reliably achieve some result."[13] Because the result that is associated with the intellectual virtues is that of believing the truth, an intellectual virtue can be characterized as a disposition to form true beliefs.

Maria Lasonen-Aarnio also wants to move beyond process reliabilism in hopes of answering its challenges. Much like Sosa and Greco, Lasonen-Aarnio wants to give an account of justification in terms of dispositions. Unlike them, however, she wants to focus on reasonable belief instead of intellectual virtue. Justification results from forming reasonable beliefs:

>   S's belief that p is justified iff S's belief that p is reasonable[14]

Reasonable beliefs are relevant to our current discussion because reasonable beliefs can be understood in terms of dispositions. Reasonable beliefs are those adopted by agents who have and practice epistemic skills that result in true beliefs. According to Lasonen-Aarnio, epistemic skills are clusters of dispositions, so reasonable beliefs are those that are formed by clusters of dispositions to believe the truth.[15]

Instead of addressing Sosa, Greco, and Lasonen-Aarnio's proposals separately, it will be useful to unite them all under one banner. Because each of of the proposals understand their most important components as dispositions, each of the separate analyses can be understood as DJ:

>   **Dispositional Justification**(DJ) – S's belief that p is justified iff S's belief that p is formed by a disposition or dispositions to believe the truth concerning p

Does this distort any of the proposals we have on offer? After all, talk of intellectual virtue and reasonable belief need not be synonymous with talk of dispositions to believe the truth.[16] To take the authors to be defending DJ, then,

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[13] See Greco (2003), p. 469.

[14] See Lasonen-Aarnio (2010 and 2016).

[15] See Lasonen-Aarnio (2016 and Forthcoming). What Lasonen-Aarnio holds is that reasonable belief, while distinct from justified belief, is extensionally very close to justified belief and thus can account for the intuitions in the New Evil Demon scenario. If her account is to address the New Evil Demon Problem, then reasonable belief will have to coincide with justified belief in that case, so understanding reasonable beliefs as justified beliefs does not distort Lasonen-Aarnio's proposed solution to the problem. Parting ways with epistemological orthodoxy, however, Lasonen-Aarnio (2010) does not think that reasonable or justified belief is a necessary condition for knowledge. Instead, she holds that it is possible to be a lucky knower and thus have "unreasonable knowledge," making it impossible to analyze knowledge in terms of dispositions (p. 17). Much thanks to an anonymous reviewer for helping me to see that Lasonen-Aarnio's view of knowledge is not able to be understood in terms of dispositions.

[16] Baehr (2011), Battaly (2008), Roberts and Wood (2007), and Zagzebski (1996) all emphasize how essentially reliabilist understandings of belief-forming faculties do not fully capture the concept of intellectual virtues. For a comparison between Greco and Sosa's virtue reliabilism and approaches that put less of an emphasis on reliability, see Fleisher (2017).

might be just to strawman their actual positions. Even though there is nothing about intellectual virtues or reasonable beliefs that requires DJ, as a matter of fact, Sosa, Greco, and Lasonen-Aarnio all flesh out their proposals in this way. For Sosa, S's intellectual virtues *just are* "dispositions to believe correctly propositions."[17] Likewise, for Greco, intellectual virtues *just are* " dispositions to reliably achieve some result," in this case believing what is true.[18] Sosa and Greco then, even though they conduct much of their theorizing in terms of intellectual virtues, appeal to DJ for their analysis of justified belief. Similarly, even though Lasonen-Aarnio conducts her discussion in terms of reasonable beliefs, reasonable beliefs are equivalent to beliefs formed by dispositions to believe the truth. Thus, taking all of the authors to endorse DJ does no violence to their original proposals.

One final caveat before we move forward. At some points in their discussions, Sosa, Greco, and Lasonen-Aarnio use talk of abilities interchangeably with talk of dispositions.[19] Because some analyses of abilities are conducted in terms of dispositions, it will be necessary to survey those views of abilities as they arise. Not all accounts of abilities are given in terms of dispositions, however, so some ways of understanding these authors comments on ability will not be able to be assessed in terms of dispositions and thus will be beyond the scope of this paper. In the conclusion, I suggest one possible upshot of the difficulties discussed in this paper is that former reliabilists about justification should opt for a non-dispositional account of ability.

2.3   Answering Challenges to Process Reliabilism

How is DJ supposed to address the problems for process reliabilism? Let's take the challenges in reverse order. Sosa hopes to utilize DJ in order to answer the generality problem. The central idea is that there are certain faculties that an epistemic community takes as standard, and so these faculties are eligible to be intellectual virtues.[20] This is essentially a contextual solution in that different faculties will be recognized by different communities, and so the relevant dispositions will shift according to the epistemic community to which an ascription of justification is relative. There are reasons to be optimistic that this contextual characteristic of intellectual virtues can be captured by disposition-talk, as dispositions can be relativized to certain communities. Suppose that Gulliver, telling about his adventures, says "Lilliputian chairs are very fragile," while the Lilliputians, speaking amongst themselves, say "Our chairs are not like those of our shoddy neighbors. They are not fragile at all."[21] Both of these statements seem true, and a plausible moral would be that there is some sort of ascriber or community relativity going on with disposition ascriptions.[22] Thus, the first

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[17] See Sosa (1991), p. 140.
[18] See Greco (2003), p. 469.
[19] See Sosa (1991), p. 242, Greco (2002), p. 303, and Lasonen-Aarnio (2010), p. 12.
[20] See Sosa (1991), p. 248.
[21] This example is due to Hawthorne and Manley (2005), p. 182.
[22] Greco (2010) advocates a similar solution to the generality problem (pp. 78-79).

characteristic of dispositions that epistemologists appeal to in order to shore up process reliabilism is the context-dependence of dispositions. Whether the context-relativity of dispositions will actually be of help in solving the generality problem is an issue we will examine once we have the contemporary analyses of dispositions on the table.

Lasonen-Aarnio hopes that DJ can go some ways towards giving reliabilists an answer to cases where a believer is justified even though those beliefs were not formed using a reliable process. The expectation is that some characteristics of dispositions might be able to capture what is going on with the subject in the evil demon world. For one, dispositions do not have to be sure-fire. A glass could be fragile and remain so even though it would not break when placed in a room full of pillows. In this case, we would say that the glass's disposition to break was masked by the pillows. Similarly, the thought is that the subject in the evil demon world can be disposed to believe truly even though they fail to given their unaccommodating circumstances. It might be that the counterpart is disposed to believe the truth, yet their disposition is masked by demon deception. What makes it the case that an object can retain a disposition without the disposition manifesting? Lasonen-Aarnio's thought is that dispositions are anchored to certain contexts. The glass's fragility is anchored to a certain environment – the everyday circumstances in which it would in fact break when it were dropped. Likewise, it is possible that the subject in the evil demon world has dispositions that are anchored to environments like the actual world where they would have true beliefs.[23] The second characteristic, then, that it is thought can improve on reliabilism is that dispositions seem to be anchored in a certain context.[24] We will see what sense we can make of this thought that subjects in the evil demon world can be disposed to believe the truth in Section 4.

Greco hopes that his proposal can rule out cases of reliable processes that do not result in justification. For one thing, dispositions are relatively stable properties of their bearers. Let's suppose that there is a sturdy concrete block that does not break except when dropped in a particular way on one of its corners. The block is not fragile simply because it breaks in a very particular scenario. Rather, the block can retain its sturdiness even if it breaks in some scenarios. In this way, dispositions are stable properties of their bearers in that not every time the disposition fails to manifest the object loses its disposition. Conversely, the block does not gain the disposition of fragility because of the one case of breaking. Similar remarks can be made about the brain lesion. Because the brain lesion is not a stable characteristic of the patient, it is possible that the belief-forming

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[23]See Lasonen-Aarnio (2016 and Forthcoming).

[24]Sosa (2003) suggests something similar in responding to the New Evil Demon Problem, namely that epistemic justification should be analyzed in terms of intellectual virtues that produce a large proportion of true beliefs in the actual world (pp. 156-157), a cashing out of his (2007 and 2015) thought that what is important is whether the dispositions produce true beliefs under normal conditions. Greco (2002) follows Sosa's lead, adopting the view that what matters to intellectual virtue is how cognitive dispositions perform in the actual world (p. 303).

capabilities of the lesion will not qualify as a disposition. Therefore, the third characteristic of dispositions that advocates of DJ appeal to is their stability. I will assess whether this property of dispositions will do the work that Greco wants it to do after introducing the contemporary takes on dispositions.

3   Contemporary Analyses of Dispositions

For our purposes, the most important aspect of contemporary understandings of dispositions will be how they identify what dispositions there are. Does the counterpart in the New Evil Demon scenario have a disposition to form true beliefs even though all their beliefs are false? Does the Serendipitous Brain Lesion bestow a disposition to believe the truth on its bearer? In order to respond to the problems for process reliabilism, a view of dispositions is needed on which there exists a disposition to believe the truth in the first case but not the second.

The traditional approach to dispositions took it that they could be analyzed in terms of conditionals. The strategy was to identify, for any given disposition, its characteristic manifestation M and stimulus conditions C. Using this strategy, any disposition could be analyzed as follows:

Simple Conditional – X is disposed to M when C iff X would M if X were in C[25]

Take a mirror's disposition to break. Under the simple conditional analysis, if striking is the stimulus condition, then the mirror has such a disposition if and only if it would break were it struck. Given the orthodox interpretation of the subjunctive conditional, this would require that the mirror break at the closest possible world in which it is struck. The traditional approach thus rules that an object or agent has a particular disposition if that disposition would manifest at the closest world where the triggering conditions obtain.

The simple conditional account is often supplemented with a reference to normal or standard conditions. Conditions fixing accounts have in common that they attempt to maintain the conceptual equivalence of disposition ascriptions and subjunctive conditionals by arguing that a reference to certain conditions, either implicitly or explicitly, is needed to make good on the simple conditional proposals. In describing a mirror as disposed to break when struck, it seems clear that we are supposing that the mirror will not be wrapped in protective bubble wrap when it is struck. Being free of bubble wrap, a dispositional mask, is one of the conditions under which we ascribe a disposition to break to a mirror. A conditions fixing account would attempt to specify completely the conditions under which a mirror would break when struck by saying that the simple conditional account is true of a disposition so long as there are normal background conditions:

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[25] See Goodman (1954), Ryle (1949), and Quine (1960).

Conditions Fixing – X is disposed to M when C iff X would M if X were in C when the background conditions are normal[26][27]

On this account, an agent would have a particular disposition if that disposition would manifest at the closest world where the triggering conditions obtain so long as the agent is currently at a normal world.

Not all accounts depend on subjunctive conditionals. One proposal that still employs possible worlds yet without subjunctive conditionals is David Manley and Ryan Wasserman's:

Suitable Proportion – X is disposed to M when C iff X would M in some suitable proportion of C-cases[28][29]

Manley and Wasserman provide a few guidelines for thinking about C-cases. C-cases are those that only have the same laws. What concrete blocks do in other worlds where the laws are much different do not bear on whether blocks are fragile in our world. Furthermore, C-cases hold fixed the intrinsic properties of the object in question. If a block would break were it made of a very fragile material, this is also not relevant to whether the actual block is fragile. According to the Suitable Proportion account then, an agent has a particular disposition so long as they manifest that disposition in an appropriate number of cases with the right stimulus conditions that are sufficiently like the actual world.

Another style of account that does not depend on subjunctive conditionals is that of dispositional essentialists. Instead of attempting to characterize dispositions primarily in terms of conditionals, dispositional essentialist accounts maintain that there are at least some properties that have dispositional essences, properties whose essences are constituted by the causal roles they play. These properties can be kept despite occasions of masking and otherwise failing to manifest. The core insight is that some properties are necessarily directional – a fragile vased is in some sense directed towards breaking:[30]

Dispositional Essentialist – X is disposed to M iff X is directed towards Ming

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[26] For analyses of dispositions similar to Conditions Fixing, see Choi (2008), Mellor (2000), p. 263, Lewis (1997), Mumford (1998), p. 89, Prior (1985), pp. 48-49, and Steinberg (2010).

[27] A promising way to understand Lasonen-Aarnio's and Sosa's attempts to deal with the New Evil Demon problem is to view their move as conditions-fixing – what matters is the actual world, or normal conditions, when considering whether a given person has a a disposition to believe the truth. See Section 2.3.

[28] See Manley and Wasserman (2008), p. 76.

[29] Both Greco's (2010) and Sosa's (1991, 2007, and 2015) accounts, due to including a safety condition on knowledge, have elements of a suitable proportion account. For whether a safety-based approach can save the dispositional account of justification, see Section 4.

[30] Those who embrace dispositional essentialism include Bird (2005 and 2007), Ellis (2002), Ellis and Lierse (1994), Heil (2003), Martin (2008), Molnar (2003), Mumford (1998), and Mumford and Anjum (2011).

According to dispositional essentialists, dispositions are primitive and unanalyzable. For this reason, they cannot be cashed out in anything more fundamental, excluding the possibility of giving a subjunctive conditional account.

4   Problems for a Dispositional Account of Justification

4.1   Excluding Certain Reliable Processes

We are now in a position to see if DJ, combined with competing accounts of dispositions, can address the challenges facing process reliabilism. Interpreting DJ according to the simple conditional account goes as follows. We already have the manifestation of the disposition in question, believing the truth concerning p, and the stimulus condition for this disposition, exercising faculty F. Substituting the right side of the simple conditional account for the right side of DJ yields the following:

> **Simple Conditional Justification** (DJ1) – S's belief that p is justified iff, were S to exercise faculty F in coming to believe whether or not p, then S would believe the truth concerning p.

DJ1 fails to answer the worry concerning the Epistemically Serendipitous Brain Lesion. All of the beliefs the patient forms through the exercise of his brain lesion are in fact true, and so the right side of the DJ1 is satisfied and the patient has a disposition to believe the truth, thus giving the verdict that the patient's belief that he has a brain lesion is justified.[31]

The conditions fixing account of dispositional justification does not fare any better when it comes to the Epistemically Serendipitous Brain Lesion. Translating DJ according to the conditions fixing account of dispositions we get the following:

> **Conditions Fixing Justification** (DJ2) – S's belief that p is justified iff, were S to exercise faculty F in coming to believe whether or not p, then S would believe the truth concerning p when background conditions are normal

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[31]It might be objected that the brain lesion is not a standard cognitive faculty. While this may be true, it is difficult to rule out the brain lesion as a faculty in a principled way. The brain lesion does not produce rational reflection, but this is true of other cognitive faculties like vision and smell. The brain lesion is not part of normal human development, but if defenders of DJ were to rule out the lesion with this strategy, then they would be leaning towards the already proposed proper functionalism, a route that proponents of DJ do not intend to pursue. Furthermore, ruling out the brain lesion will require some kind of principled answer to the generality problem. What level of description should we use to determine the faculty types? Should vision be the only faculty dealing with eyesight, or should night vision be its own faculty type? Should we allow seemings that are based in one part of the brain but not those that are delivered by the brain lesion? Without a principled answer to the generality problem, proponents of DJ will not be successful in ruling out the brain lesion as a cognitive faculty. For more on possible DJ solutions to the generality problem, see Section 4.3.

It has been a challenge for conditions-fixing accounts of dispositions generally to specify background conditions in a way that is not vacuous. Let's assume though that this challenge is soluble. In that case, we would have a completely filled in description of the conditions in which the believer comes to the belief that they have a brain lesion. Whatever those conditions turn out to be though, we can imagine that the patient has the brain lesion in precisely that environment and that the beliefs formed by the lesion are completely reliable. The only way to rule out this possibility would be to say that the background conditions do not include such a brain lesion. Besides being an obviously ad hoc solution, this makes the counterfactual impossible to evaluate, for the very faculty by which the belief is formed is grounded by the brain lesion.

Similar problems afflict dispositional accounts of abilities. As mentioned previously, there are indeed accounts on which abilities are a variety of dispositions. Principal amongst these are the accounts of abilities from a party to the free will debate, the New Dispositionalists. The New Dispositionalists typically understand ability as a disposition that occurs upon trying. Khadri Vihvelin gives the following analysis, adapting a Lewisian formulation of dispositions for abilities by qualifying that S must be in a certain set of circumstances:

> S has the ability at time t to do X iff, for some intrinsic property or set of properties B that S has at t, for some time t' after t, if S chose (decided, intended, or tried) at t to do X, and S were to retain B until t', S's choosing (deciding, intending, or trying) to do X and S's having of B would jointly be an S-complete cause of S's doing X.[32]

Even though Vihvelin's proposal looks quite a bit more complicated than Conditions Fixing, Lewis's view is a variant of the conditions-fixing strategy, an attempt to fix the background conditions in which dispositions infallibly manifest.[33] In this case, the normal background conditions include holding fixed a certain set of intrinsic properties. One difficulty that prevents us from immediately applying this account of abilities to the cognitive case is that the New Dispositionalists are focused on agentive abilities, abilities that require deciding, intending, and the like. Many of the cognitive abilities, however, require no such decision or intention as the faculties in question often function without any conscious decision by the agent. In order to make such accounts applicable to this project, it will thus be necessary to substitute something else in for "trying to M," the most likely candidate being "exercising faculty F," a stimulus condition that can occur regardless of whether that exercise is intentional or not. But now it can be clearly seen that Vihvelin's account will face the same difficulties as DJ2 since it is an account of the same stripe. If the fixed properties of S include the brain lesion, the counterexample will not be avoided, but, if those properties do not include the brain lesion, the counterfactual will be impossible to evaluate.

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[32]See Vihvelin (2004), p. 438.
[33]See Lewis (1997).

The suitable proportion account of dispositions falls to a similar concern. On the suitable proportion analysis, DJ reads as follows:

Suitable Proportion Justification (DJ3) - S's belief that p is justified iff S would believe the truth concerning p in a suitable number of cases where S exercises faculty F in coming to believe whether or not p

The cases which we are considering are those in which the patient forms a belief via their brain lesion, but it has already been stipulated that the brain lesion produces true beliefs in every world in which it exists. Thus, on any definition of suitable proportion, the beliefs formed by the brain lesion will count as justified.

Finally we come to the dispositional essentialist account. Because dispositional essentialists emphasize the causal role played by particular dispositional properties, the property in question will still focus on the manifestation of forming true beliefs:

Dispositional Essentialist Justification (DJ4)- S's belief that p is justified iff the faculty F that formed the belief is directed towards true beliefs concerning p

The important question then when it comes to DJ4 is whether or not the brain lesion is directed towards true beliefs. Even though it is not completely clear how the dispositional essentialist will go about counting the dispositions there are, they would be hard-pressed to say that the brain lesion does not have this dispositional property, as it never fails to contribute true beliefs concerning its presence. The only reason the advocate of dispositional justification will have for excluding it as a disposition to believe the truth would be the motivation that it does not contribute to justified beliefs, an ad hoc solution if there ever was one. This type of reverse engineering is problematic in a similar way to the issues raised by the generality problem. The process reliabilist is faced with the challenge of providing a principled way of determining the process used to form a belief, and the wrong place to look for such a theoretical reason is the judgment that the belief is justified or unjustified. If this latter method was acceptable, then the process reliabilist would always be able to reverse-engineer a process that gives the correct result. Likewise, the dispositional essentialist will need to give sufficient reason to judge that the brain lesion confers a disposition to believe the truth apart from whether the brain lesion produces justified or unjustified beliefs.

It is helpful to recall that Greco's original hope was that the stable nature of dispositions would rule out the Epistemically Serendipitous Brain Lesion. As we have seen, this hope is completely unfounded. Not only do all the predominant accounts of disposition include the brain lesion as one of the patient's dispositions, but they all give the verdict that the brain lesion is capable of forming justified beliefs. It seems that, whatever the stability requirements for dispositions are, the brain lesion satisfies them. Even if the brain lesion had been ruled

out by one of the accounts of dispositions because of its late formation in the patient's life, we can imagine a case in which the patient had the brain lesion for their entire life, securing the brain lesion as a disposition of the patient. Thus, it appears that the appeal to stability won't do any work in excluding certain reliable processes.

4.2   Justification Sans Reliable Process

Can an account of dispositional justification rule that a subject in the New Evil Demon has justified beliefs? As before, DJ1 will be of no help. According to DJ1, a subject only has justified beliefs if they would believe truly in the closest world where they exercise their belief-forming faculties, and this of course will be false for all of the counterpart's faculties. This is symptomatic of a larger problem for DJ1. According to DJ1, the only faculties that can confer justification on beliefs are those that would form true beliefs at the closest worlds. But this makes it such that it is not possible to have false justified beliefs, for no faculty can simultaneously form a false belief and confer justification on that belief. DJ1 therefore fails to get off the ground because it does not allow for the conceptual possibility of justified false beliefs.

DJ2 might be able to better address the New Evil Demon problem if the normal background conditions can be specified in a way that centers the counterpart's dispositions on the actual world. This was Lasonen-Aarnio's hope, that the dispositions of the counterpart might be able to be anchored in our world. As it turns out though, fallible justification is not just a problem for DJ1, but also presents a challenge for DJ2. Many sources of justification are such that they carry the possibility of providing misleading evidence, even in normal situations. The problem is well illustrated by the following case:

> **Informed Academic**
>
> Every morning Julie reads the *New York Times* and, knowing that the paper is a reputable source, forms many beliefs about the world. On this particular morning, Julie forms the belief that striking power poses throughout the day can increase testosterone and decrease cortisol.

Julie's belief formed upon reading the *New York Times* is clearly justified. Unfortunately, the psychological studies on power poses have failed to be replicated.[34] Let's assume, for the sake of argument, that the predictions made by power pose theories are false. On this supposition, DJ2 rules that Julie's belief is unjustified because, in the closest world where she forms a belief about the efficacy of power poses (the actual world), that belief is false. The only way that DJ2 can avoid this result is by arguing that Julie's case is not normal, but it is completely normal that our sources of justification sometimes lead us astray. Thus, it appears that DJ2 will be inadequate as a theory of justification also

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[34]See Ranehill, et. al. (2015).

because it fails to account for the fallibility of justification.[35]

The Suitable Proportion account of justification also fails to give the verdict that the counterpart in the New Evil Demon world has justified beliefs. Manley and Wasserman note that, on the Suitable Proportion account, that the nearness of the possible world of a particular C-case matters. Consider a castle that is an intrinsic duplicate of another castle, yet one of the castles is more vulnerable than the other because it is closer to the front lines of a battle. This is the case even though the castles might fall in an equal number of worlds where they are attacked. Manley and Wasserman respond that supplementing Suitable Proportion there must be an account of which C-cases are more heavily weighted than others. In the castle case, the closest worlds are weighted more heavily. The castle closer to the front lines is more vulnerable because it would be conquered in more of the closest possible worlds than the castle deep in friendly territory. In the case of differing manifestations of fragility, the worlds where an object shatters are weighted more heavily than those worlds in which the object merely cracks. But if we were hoping to anchor the dispositions of the deceived counterpart in the actual world, this is the wrong result. The closest possible worlds for the counterpart are those in which their beliefs are predominantly false, and so if those worlds are more heavily weighted, then DJ3 rules that the counterpart does not have a disposition to believe the truth.[36]

What about dispositional essentialism? It will be difficult for the proponent of DJ4 to say that the victim of the New Evil Demon has a disposition to believe the truth given that they are radically mistaken about the majority of their beliefs. If the advocate of dispositional justification does go in for claiming that the counterpart does have this disposition though, then they face a similar problem to that with the brain lesion. On account of what evidence does the dispositional essentialist include that the counterpart has a disposition to believe the truth but the brain lesion afflicted patient does not? It cannot be which one actually has true beliefs, as this would vindicate the thought that the person with the lesion has a justifying disposition. The supporter of DJ could argue that the counterpart has a disposition where the patient does not because the former has justified beliefs, but this is obviously ad hoc and the type of

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[35]Similar concerns apply to the New Dispositionalists take on abilities. Vihvelin's (2004) account only holds the internal properties of the subject fixed, doing nothing to prevent Julie from having a false belief in Informed Academic. The same concerns then apply to the New Evil Demon counterpart, as their internal properties are identical to those of the justified believer in the actual world.

[36]An important aspect of Manley and Wasserman's (2008) view is that the closeness of particular C-cases matters only for extrinsic dispositions (p. 78), but this will not allow advocates of DJ to dodge the critique offered here. Lasonen-Aarnio's (Forthcoming) position is that "in the end...reasonableness is extrinsic." Greco (2010) and Sosa's (1991, 2007, and 2015) emphasis on safety in their accounts of epistemic dispositions will create precisely the same problem. Like with Suitable Proportion, what matters is a proportion of a set of close worlds. If Greco and Sosa use this to understand what dispositions epistemic agents have, however, this will rule that the counterpart is unjustified in their beliefs as they are not disposed to believe truly.

reasoning that is impermissible in solving the generality problem.

Lasonen-Aarnio hoped that there was a way that anchoring dispositions in the actual world would help in responding to the justification sans reliable process problem. As we have seen, none of the analyses of dispositions on offer can make sense of this anchoring in a way that gives the verdict that the counterpart in the New Evil Demon world is justified in their beliefs. This is for a variety of reasons. To the extent which dispositions are anchored in ideal conditions, they cannot make sense of false justified belief at all. On the other hand, if dispositions are determined by the closest possible worlds regardless of whether those worlds are ideal or not, then the counterpart in the demon world does not have a disposition to believe the truth. Thus, however dispositions are understood, anchoring them in the actual world will not solve cases of justification that lack a reliable belief-forming process.

4.3   The Generality Problem

None of the proposals we have seen thus far will help with the generality problem. Recall that Sosa's hope was that, because the dispositions we evaluate are context-sensitive, this would make the dispositions favored by our epistemic community relevant to the justification of our beliefs. All the accounts of dispositions we have examined, however, do not provide the resources to make good on this hope. The only contemporary proposal that attempts to make sense of the context-sensitivity of dispositions is the Suitable Proportion account. According to Manley and Wasserman, the context-sensitivity of dispositions is due to differing thresholds being invoked on the number of C-cases in which manifestations must occur. In Gulliver's case, whether the chair breaks when he sits on it is included in the C-cases that are relevant to the chair's fragility, while in the Lilliputian's case, the threshold is lower and cases where Gulliver sits on the chair are not relevant. Let's try applying this to the epistemic case. There are a range of cases in which I use a given faculty, vision let's say, and there is a variable threshold that decides whether my vision constitutes a disposition to believe the truth based on how many cases in which I use my vision and form true beliefs. Sosa's proposal is that this threshold is set by the standards of an epistemic community. Let's suppose that, for a particular community's threshold, my vision does form true beliefs in a high enough number of C-cases to ground a disposition to believe the truth while my night vision does not. This approach will answer one question in that it will decide what dispositions a person has, but it will not answer the more important question of how to characterize particular instances of belief formation. If we want to conclude that I am justified in believing that I am seeing a street lamp, then this instance of belief formation will have to be described as being formed in a way other than night vision, because for the community in question, night vision is not a disposition to believe the truth and cannot give rise to justified beliefs. The problem of identifying the relevant belief-forming faculty will persist no matter where the threshold is placed, and thus the generality problem will persist despite the

context-sensitivity of dispositions.

5 A Helpful Patch?

The hope was that, by appealing to a dispositional account of epistemic justification, we would be able to respond to the challenges facing process reliabilism. We have seen that combining DJ with various analyses of dispositions has failed to make good on that hope. One issue that still needs to be addressed though, is that Sosa, Greco, and Lasonen-Aarnio have since supplemented their original accounts, adding on to DJ in ways that might alter the verdicts we reached in Section 4. Far from making the arguments of the previous section irrelevant, however, outlining the difficulties for DJ reveals what is significant in these full proposals. What is doing the work in these formulations, it turns out, is really nothing to do with dispositions. Instead, the virtues of these proposals, if they can be had at all, can be had just as easily without any reference to dispositions. In what follows, I will examine these alternative proposals and show that they do not owe their improvements over process reliabilism to anything to do with dispositions, and thus that there is no work for a theory of epistemic dispositions.

5.1 Lasonen-Aarnio's Knowledge-Conducive Dispositions

Up to this point, we have taken the epistemic goal that factored in reasonable beliefs to be that of true beliefs. Lasonen-Aarnio makes it clear, however, that her favored view is one on which reasonable belief is analyzed in terms of dispositions to know.[37] Even though dispositions to have true beliefs and dispositions to know often coincide, it is possible that they come apart. Consider, for instance, a subject who is considering whether their lottery ticket will lose. If it is not possible to know that one's lottery ticket will lose, a subject who believes that the ticket will lose is being reasonable in the true belief sense of the term, but not in the knowledge sense. For if the subject has a disposition to believe in the lottery case, then they will adopt a large number of beliefs that are not knowledge, thus undercutting the thought that they have a disposition that is knowledge conducive. Since Lasonen-Aarnio is explicitly attempting to provide a response to the New Evil Demon, let's see how this revision affects our former verdict. The manifestation of the disposition in DJ will now be knowing whether or not p instead of having true beliefs whether or not p:

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[37]See Lasonen-Aarnio (2010), p. 12, n. 19, and (Forthcoming). Even though Lasonen-Aarnio hopes to make sense of reasonableness in terms of knowledge-conducive dispositions, this does not mean that Lasonen-Aarnio hopes to analyze knowledge itself in terms of dispositions. In fact, Lasonen-Aarnio (2010) denies that this is possible due to occurrences of unreasonable knowledge (p. 17). Instead, the concept of reasonableness is analyzed in terms of dispositions that are conducive to knowing. Thank you very much to the anonymous reviewer that pointed out how Lasonen-Aarnio's view on knowledge differs from her view of reasonableness.

Dispositional Justification* – S's belief that *p* is justified iff S has a disposition to know whether or not *p* when exercising faculty F

This proposal does little to fix the deficiences of DJ. DJ1* would still yield the verdict that the deceived counterpart does not have justified beliefs, for in the closest worlds they will not know any of the beliefs that they hold. DJ2* will still have trouble accounting for justified false beliefs in the actual world because, even in ideal conditions, Julie will adopt beliefs concerning propositions that she does not know. DJ3* will still emphasize the worlds closest to the counterpart, worlds in which the counterpart doesn't have true beliefs, much less knowledge, making it such that the counterpart is not justified. DJ4* might succeed in ruling out the brain lesion as a justificatory disposition given that it never issues in knowledge, but if that is the reason to take the brain lesion as not constituting a justificatory faculty, then the same reasoning will apply to the faculties of the counterpart in the demon world. So it seems like reasonable beliefs, whether those are the product of dispositions to form true beliefs or knowledge, will fare no better at explaining why there is justification in the absence of a reliable process.

5.2   Sosa's "Relative to the Actual World"

Sosa later supplements his DJ analysis of epistemic justification, saying that a subject's beliefs are justified not only in virtue of exercising a disposition to believe the truth, but exercising a disposition that results in true beliefs *relative to the actual world*. In order to deal with counterexamples like the New Evil Demon, Sosa modifies his original formulation as the following:

> A belief B is justified in w only if B is acquired in w through the exercise of one or more intellectual virtues *that are virtuous in our actual world.*[38]

As before, an intellectual virtue is a faculty that grounds a disposition to form true beliefs. Let's suppose that Sosa's proposal does the job it was intended to do and rules that the counterpart in the New Evil Demon world is justified in their beliefs because they have faculties that would be dispositions to believe the truth in the actual world. But this makes Sosa's revised view have an advantage over process reliabilism, not because it refers to dispositions, but rather because it has this qualification. To see this, consider rereading RJ with Sosa's addition:

> **Reliabilist Justification*** – S's belief that *p* is justified iff S's belief that *p* is produced by a process that is reliable in the actual world.

Reliabilist Justification* is just as successful in ruling that the counterpart in the demon world is justified as Sosa's modification of DJ. The counterpart has mental processes that are reliable in the actual world, and thus has justified beliefs. But now that we can see that adding the tag "in the actual world" can fix RJ just as effectively as it can remedy DJ, we can also see that the reference

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[38]See Sosa (2003), p. 157. Italics are mine.

to dispositions is not doing any of the work in responding to the New Evil Demon. Thus, even if Sosa's revision is successful, it does not demonstrate that a dispositional account of justification is superior.

The same problem afflicts another of Sosa's modifications of Dispositional Justification. As we have seen, Sosa hopes to limit the number of dispositions that grant knowledge and justification by appealing to the standards of an epistemic community. Only the dispositions to form true beliefs that are accepted by one's epistemic community are capable of producing justified beliefs. There are reasons to be optimistic about this limitation. After all, it may rule out the brain lesion as a way of forming justified beliefs. The problem, however, is that improvement has nothing to with dispositions – process reliabilism could also avoid Brain Lesion by using the same strategy. If the reliabilist only includes the processes that are accepted by an epistemic community, then the brain lesion will be excluded. Thus, limiting the intellectual virtues to those approved by an epistemic community also does not privilege a dispositions-based view of justification over process reliabilism.

5.3   Greco's Cognitive Integration

John Greco realizes that the appeal to the stability of dispositions is not sufficient to ward off worries about the Epistemically Serendipitous Brain Lesion. Greco notes that the brain lesion could have been present since birth and thus that a stability requirement on dispositions will not be enough to resolve the issue.[39] What Greco invokes to further address the worry is the notion of cognitive integration. A belief-forming process is better cognitively integrated if it gives a diverse range of outputs and is sensitive to counterevidence. On this account, the brain lesion fails to be a source of justification because it does poorly along both of these dimensions – it only produces beliefs about itself and it maintains beliefs even in the face of strong counterevidence. But now the same worry applies as in the previous section: Are dispositions doing any work in responding to counterexamples? The answer again seems to be no, for consider a formulation of RJ that requires that belief-forming processes be well-integrated. If cognitive integration is capable of repairing DJ, then it should also be capable of amending RJ in a way that is able to exclude certain reliable processes. Thus, it is once again clear that it is not actually an appeal to dispositions that is crucial in improving process reliabilism.

6   The Way Forward

Ernest Sosa, John Greco, and Maria Lasonen-Aarnio all suggest that dispositions can serve to repair the shortcomings of process reliabilism. As we have seen though, even where dispositional accounts of justification have an advantage over process reliabilism, it is not because of their dispositional components,

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[39]Greco (2010), p. 151.

but because of other elements that could just as easily repair RJ as they can DJ. Given that DJ appears to have done nothing to repair process reliabilism as advocates of DJ had hoped, one potential upshot is that there is no work for epistemic dispositions in saving the connection between truth and epistemic justification. But why assume that the problem is with DJ itself instead of the accounts of dispositions? After all, the literature on the metaphysics of dispositions is quite vexed, as evidenced by our brief survey of the field. Why not conclude instead that we do not have the correct understanding of dispositions yet and that this search can potentially be illuminated by an account of epistemic dispositions?[40] This second way of taking my argument not only fails to show that there is no work for epistemic dispositions, but instead makes them crucial for understanding dispositions in the first place.

The reason that I am not optimistic about this latter way of interpreting the dialectic is that it is unclear that justification is underwritten by epistemic dispositions in the first place. It is clear that a theory of dispositions out to be constrained by concepts like the poisonous nature of arsenic or the fragility of glass, paradigmatic instances of dispositional properties. It is far less obvious, however, that the justification of a belief is a dispositional property. Proponents of DJ of course hope that justification is dispositional, but because it is not clear that the justification of a belief is a dispositional property, it gets things exactly backwards to assume that the metaphysics of dispositions must answer to the concept of justification. Instead, we should not think that justification is a dispositional property until we are provided with strong evidence that this is the case. Given that all the versions of DJ we have explored have failed, we do not yet have sufficient reason to think that justification is dispositional. It thus seems safe to draw the moral that we have and say that there is no work, for saving a connection between justification and truth at least, for a theory of epistemic dispositions.[41]

One possible upshot of rejecting Dispositional Justification is further exploration of an account of abilities that does not depend on dispositions. If the foregoing arguments are correct that DJ does not hold much promise for improving on

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[40]I want to extend my thanks to an anonymous reviewer for highlighting this point about the paper's methodology. There are multiple lessons that could be drawn from the failure of DJ, with one of these options being that the extant theories of dispositions are untenable.

[41]Dispositions are appealed to for other epistemic work beyond an analysis of justification, most obviously in theories of knowledge and solving the value problem – see Gundersen (2012), Greco (2010), and Sosa (1991, 2007, and 2015). Nothing I've said here bears on those projects, and perhaps dispositions will end up being helpful in addressing issues in these areas. My arguments show, however, that epistemic dispositions will not be the Swiss Army knife that externalists have recently hoped, as they are incapable of filling one of the most central roles they were meant to play. It could also be that dispositions can be incorporated into an internalist account of justification, as Feldman (2004) relies on a dispositional account of belief and knowledge to illuminate evidence possession and Nolfi (2015) utilizes an account of dispositional belief to defend a normativist motivation for epistemic norms. Thanks to an anonymous reviewer for mentioning the externalist as well as internalist projects that utilize epistemic dispositions.

process reliabilism, then those who hope to motivate an abilities-focused account of justification should turn their attention instead to non-dispositional accounts of abilities. It is by no means inevitable that abilities should be understood in terms of dispositions – Barbara Vetter has recently argued that abilities should not be understood as dispositions, more specifically arguing that the abilities at issue in epistemology should not be characterized in terms of dispositions.[42] As mentioned previously, Sosa, Greco, and Lasonen-Aarnio treat their accounts in terms of abilities and dispositions as interchangeably, often simply analyzing abilities in terms of dispositions. A final moral to this paper then is that these attempts should be abandoned. Sosa, Greco, and Lasonen-Aarnio would be better served by drawing a distinction between DJ and an abilities-based view of justification and turning their attention to non-dispositional accounts of ability.

In fact, this is a move that Sosa has already begun to make. In his most recent work, he has said that his view is best captured by the language of competences and abilities, saying that a dispositional take on the intellectual virtues is a bit forced.[43] Even though Sosa has opted for describing his view in terms of competences and abilities, he still unfortunately often treats 'disposition' as interchangeable with 'ability,' also saying that abilities are just special cases of dispositions:[44]

"A competence is a disposition (ability) to succeed when one tries."[45]

"A competence is epistemic only if it is an ability, a disposition, to discern the true from the false in a certain domain."[46]

"What is required for possession of a given competence is that one be disposed to succeed if one tries to ø, which requires not only that one have an ability to ø but also that one would employ that ability (or some other in a restricted ability range) when one tried to ø."[47]

As these passages demonstrate, Sosa clearly takes abilities to be dispositional, making his new focus on competences and abilities seem continuous with his early view that analyzed intellectual virtues in terms of dispositions. As Barbara Vetter and the arguments of this paper have shown, however, Sosa should not treat 'disposition' and 'ability' as synonymous. Abilities might not be dispositional, and even if they are, Dispositional Justification is clearly lacking. Sosa should instead double down on the way he has distanced his most recent

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[42] See Vetter (2016 and 2017), with a focus on the dispositional accounts of abilities at play in epistemology in her (2017), pp. 14-17. Mario Alvarez (2017) has also argued that even character traits should not be understood as dispositions, making the link between agentive and cognitive abilities and dispositions tenuous indeed.

[43] See Sosa (2015), p. 27 and Footnote 11 of this paper.

[44] See Sosa (2015), p. 24 and 28

[45] See Sosa (2015), p. 95 and (2017), p. 191.

[46] See Sosa (2015), p. 172.

[47] See Sosa (2017), p. 205.

account from dispositions, eliminating reference to them entirely. Opting for a non-dispositional account of epistemic competences and abilities is the more promising strategy, and those looking to improve on process reliabilism should focus more energy in this direction moving forward.[48]

Even though those looking to repair process reliabilism may be better served by turning to abilities rather than dispositions, such an approach is not without concerns. Consider, for instance, the challenge posed by the Epistemically Serendipitous Brain Lesion. Does the brain lesion bestow an ability to have true beliefs about the fact that the person has a brain lesion? We can make some progress on answering this question by asking what types of abilities it is possible to possess. Many who theorize on ability invoke a distinction between general and specific ability – general abilities are those that we have even if we do not have the opportunity to exercise them while specific abilities are those that we have both ability and opportunity to exercise. Alfred Mele compares the two, saying that he has the general ability to golf even while he is not at the golf course but does not have the specific ability unless he is lining up to swing the club.[49] Because the distinction is so widely accepted, it seems to be a constraint on a theory of abilities that they offer a view of both general and specific abilities. We can narrow our question then by asking whether the brain lesion provides its bearer with either general or specific abilities to believe the truth.

The difficulty, however, for an abilities-based view of justification is that the brain lesion seems to bestow its victim with both a general and a specific ability to believe the truth about the brain lesion. When the patient has the brain lesion but is not considering whether they do, then we could say that they have the general ability to form true beliefs about the brain lesion even though they are not currently thinking about it. Similarly, once the victim begins to contemplate whether they have a brain lesion, they have the specific ability to form true beliefs about the brain lesion as they have both the general ability and the opportunity to exercise that general ability. Because any account of abilities will have to capture these general and specific abilities of the patient,

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[48]The view that knowledge is some sort of ability is quite popular, defended in some form by Hetherington (2012), Kenny (1992), Ryle (1949), and White (1982), and the strategy for defending this view against criticisms by Kvanvig (2003 and 2010) and Pritchard (2009 and 2012) has been to get more specific about precisely what constitutes an ability. Littlejohn (2014) argues that abilities can fail to be exercised in certain inhospitable environments, suggesting a possible solution at least to the New Evil Demon problem. If this account is further developed in a non-dispositional direction, the resulting view might avoid the criticisms of this paper. Directions forward might include Maier's (2015) analysis of abilities in terms of options, as he explicitly argues that abilities are not reducible to dispositions (pp. 119-124) and Miracchi's (2015) focus on competences to know.

[49]See Mele (2003), p. 447. Berofsky (2002), p. 196, invokes the distinction as a difference between type and token abilities, Whittle (2010), p. 2, as a distinction between local and global abilities, and Vihvelin (2013), pp. 11-12, as a difference between narrow and wide abilities. For more on the partition between general and specific abilities, see Maier (2018) and Jaster (Forthcoming).

it is not clear that an analysis of justification centered on abilities to believe the truth will fare any better than an account that focuses on dispositions. As the accounts of abilities are quite varied, I only have the space here to register this initial concern.[50] It is also possible that Sosa's notion of competence should not be understood as a type of ability either, but something completely novel. A full account, then, of the prospects of an abilities- or competences-based view of epistemic justification will have to be left as a project for further exploration.

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[50]Even though we have surveyed dispositional accounts of abilities, there are numberous other proposals – Donald Davidson (1980) understands abilities as causal powers, David Lewis (1976) takes abilities to be constrained by possibility, John Maier (2013) analyzes abilities in terms of options, and Romy Jaster (Forthcoming) takes abilities to be dependent on the notion of success.

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