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Keeping the Imagination Epistemically Useful in The Face of Bias

Madeleine Hyde
Stockholm University
Diaphora ETN Project

Biography

I'm a PhD student at Stockholm University. I work there with Kathrin Glüer Pagin under the work-package 'The Nature of Representation' as part of DIAPHORA, a three-year project funded by the EU's Marie Skłodowska-Curie group of European Training Networks and Horizon 2020. The wider aim of DIAPHORA is to address resilient philosophical problems and disagreements. At Stockholm, our focus is on interconnected problems in the philosophy of perception, language and epistemology relating to the content of our mental states and their communicability. As DIAPHORA is a network of universities, I spent 3 months at the University of Barcelona working with Manuel Garcia-Carpintero and will go in 2019 to the University of Edinburgh to work with Aidan McGlynn. I also worked for two months at Ideaborn, a human rights consultancy firm based in Barcelona.

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Abstract

The imagination is often treated as epistemically useless in comparison with other sensory states like visual perceptual experiences. A deeper look into what kind of beliefs imagining can and cannot justify indicates that the story is more complicated than this. Under certain constraints, it appears that the imagination can be put to good epistemic use, justifying beliefs based on its content in a way comparable with perceptual experience. However, as can also be the case in perceptual experiences, imaginative states are subject to being negatively influenced by biases, which skew the content and 'downgrade' the state epistemically. I aim to show how such effects can be combatted. With a certain kind of epistemic responsibility in place, the ideal imagining agent can notice the influence of bias on their imaginative episodes, stop believing the relevant unjustified beliefs and reconfigure their imaginative episode to better represent not only what is metaphysically possible, but what is a live possibility for them right now. The result is not only that the imagination is indeed epistemically useful, but in ways that up till now have remained relatively unexplored.

Introduction

The imagination is often treated as epistemically useless in comparison to other sensory states like visual perceptual experiences. A deeper look into what kind of beliefs imagining *that p* can and cannot justify tells us that the story is more complicated than this. Under certain constraints, it appears that the imagination *can* be put to good epistemic use, justifying certain beliefs based on its content in a way comparable with perceptual experience. However, as can also be the case in perceptual experiences, imaginative states are subject to being negatively influenced by biases, which skew the content and 'downgrade' the state epistemically. I aim to show how such effects can be combatted. With a certain kind of epistemic responsibility in place, the ideal imagining agent can notice the influence of bias on their imaginative episodes, stop believing the relevant unjustified beliefs and reconfigure their imaginative episode to better represent not only what is metaphysically possible, but what is a *live possibility* for them *right now*.

The result is not only that the imagination is indeed epistemically useful, but in ways that up till now have remained relatively unexplored.

We open by running through some existing views as to why imaginative and perceptual experiences are epistemically distinct, with each kind of view varying as to how epistemically inferior the imagination is considered in comparison to perception. §2 focuses on views which defend the epistemic usefulness of the imagination, and discusses the kind of constraints that must be in place for this to operate. In §3 we explore two cases which throw doubt on Defender views, comparing these cases with cognitively penetrated perceptual experiences and how they are epistemically downgraded, à la Siegel (2017). Finally, we will see in §4 how Defender views can accommodate such cases, supplemented with a specific kind of epistemically responsibility, before concluding.

§1. Why Might the Imagination be Epistemically Useless?

Many of our mental states can be epistemically useful. Visual perceptual experiences are a classic example: having a visual experience *that p* can give me reason to believe *that p*. Some accounts of perceptual justification stipulate that we only get *propositional* justification for believing the content of such experiences when visual perception is a *reliable* epistemic source i.e. its content is sufficiently often true[1]. More minimal accounts can grant perceptual subjects propositional justification for believing the content of their experiences just in virtue of *having* those experiences *plus* lacking any relevant defeaters:

> PHENOMENAL CONSERVATISM [PC]: *If it seems to subject S that p,*
> *then unless S recognizes a defeater on p, S has justification for believing*
> *that p.*

So the PC argument normally goes: visual experiences[2] are a kind of seeming, and so we have *prima facie* justification for believing their content i.e. unless we recognize good reason to believe otherwise (Pryor 2005) (Tucker 2010). If I have a visual experience as of a blue chair in the middle of my office, I gain justification for believing that there is a blue chair in the middle of my office. Compare this situation with when I have a sensory

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1. For second-order justification, there can be a requirement for the subject's awareness that perception is a reliable epistemic source built-in (e.g. as part of what Sosa calls *reflective*, as opposed to merely *animal* knowledge (Sosa 2005)).

2. Plausibly also memories and intuitions are types of seeming – see e.g. (Chudnoff 2012) and (Tolhurst 1998) on which kinds of state can count as 'seemings'.

imaginative state[3]. From the first-person perspective, imagining can feel much like having a visual experience. Why then, if I imagine that there is a blue chair in the middle of my office, am I not *prima facie* justified in believing so, in the above sense?

There are several existing proposals as to what differentiates imaginative and perceptual states epistemically, which vary in extremity. On one end of the spectrum, views that we shall call Extremist think that the imagination is epistemically useless, full stop. Radicals, who are just one notch down from Extremists, would say rather that there is *almost nothing* epistemically useful we can get out of having an imaginative state, in comparison to a perceptual experience. Moderates would have it that of all the sensory states we can have (e.g. including memory and visual perception), imagination is epistemically second-class, but not useless. At the other end of the scale are the Defenders: those actively countering Extremist views. They would have it that the imagination can be epistemically useful, whether in ways which depart from or are comparable with the epistemic role of visual experiences (as in the PC model given above).

This section looks at several views as to what is *the most important* factor, epistemically speaking, in telling imaginative and perceptual states apart[4]. Doing so makes the views mutually exclusive; but one can always recast each difference as a contributory, rather than *ultimate* factor in differentiating the two states. Each view can also vary in extremity, according to our scale; although some of them lend themselves better to e.g. Extremist views than others. Finally, we will see what the Defenders of the epistemic usefulness of the imagination have to say, which we look deeper into in §2.

The Representational Difference [RD]

Suppose that PC is correct: that we lose justification for believing the content of a visual experience *that p* as soon as we recognize a defeater on *p* - for example, if we become aware that our eyes deceive us somehow. In such cases, we can call the experience 'inaccurate' because it *misrepresents* how things really are. In contrast, nothing is at fault with my imaginative state if it misrepresents *how things are*. Intuitively, this is

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3. Many contrast a sensory imaginative state with 'propositional imagining', which supposedly can be done without sensory imagery. See e.g. (Kind 2001) for an imagistic account of imagining, according to which propositional, non-sensory 'imaginative' states need to be re-categorised as something like 'supposing' *that p*.

4. It is best to keep the comparison at the state level in either case, as both are individuated by their propositional content.

because it never was the job of an imaginative state to report on how things are *in the actual world* (henceforth @). We can summarize this difference as follows:

> RD: *Imaginative states differ epistemically from states like beliefs and visual experiences because they are not 'misrepresentative' or 'inaccurate' if their content is false in @*[5].

Another way of casting RD is to insist that whilst visual experiences, like beliefs and memories, deal in truth and facts, the subject-matter of imaginative states is comparatively non-epistemic; dealing, rather, in our *fantasies*[6]. This is compelling if you look at a widespread class of usage of the imagination: for role-playing, engaging with a work of art or fiction, or living out our wildest fantasies in our own heads. In such cases, we are often trying to imagine scenarios which are as far removed from the actual world as we can imaginatively reach. Kind and Kung call this our 'transcendent' use of the imagination (Kind & Kung 2016) - which looks decidedly non-epistemic. Yet, as we shall see, there are also epistemic ways of using our imagination.

An Extremist version of RD would have to say that *only* states who are accurate when their content is true in @ can be epistemically useful. This would be equivalent to denying that we can run a modal epistemology off any mental state. If you, very reasonably, want there to be justified beliefs about what is possible - and hence epistemic states which represent truth in possible worlds - then you will want at least a Moderate version of RD. The Moderate would argue that faithfully representing how things are in @ makes a state epistemically superior, but that states which need not do so can still be epistemically useful in other ways. The Defender stipulates similarly, but in a stronger sense, that states which need not accurately tell us how things are in @ have an important epistemic role to play (see the Defender view below).

The Phenomenal Difference [PD]

Imaginative states and perceptual experiences both involve the use of sensory imagery, but imagining that p and perceiving that p would nonetheless feel subjectively

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5. A version of RD which directly confronts the difference in *direction-of-fit* between imaginative and perceptual states (where perceptual states have a mind-to-world and imaginative states a world-to-world direction of fit) can be found in (Garcia-Carpintero forthcoming).

6. This is analogous to how Williamson sets up a commonly-conceived contrast between knowledge and imagination: 'Knowledge deals in facts, imagination in fictions' (Williamson 2016, 113). Williamson then goes on to explain why, contrary to this conception, the imagination can deal in facts too.

different due to their distinctive *attitude-specific* phenomenologies i.e. phenomenal features which ride off not the content, but the kind of state we are in. Capturing their phenomenal differences is not straightforward, as Nanay notes

> …perceiving and imagining are quite similar in many respects: imagining or visualizing a green chair has similar phenomenal character as seeing a green chair. On the other hand, there are important phenomenal differences between these two mental states, which need to be explained, maybe in terms of intensity or determinacy. (Nanay 2010, 239)

It is a line of thought which is inherited from Hume's distinction between *ideas* and *impressions* (Hume 1748/ 2000), where he described the sensory imagery we get in a perceptual experience (ideas) as more 'lively' and 'vivid' than the recycled sensory imagery we utilize when we remember or imagine (impressions), which are pale in comparison. I suspect that this kind of assumption lies behind contemporary arguments which treat imaginative states as epistemically second-class to perceptual experiences, especially on the basis of imaginative states being 'weaker' (less determinate) in phenomenal character.

Yet to make this jump, one has to argue *first* that we can gauge something of the epistemology of a mental state from its phenomenal character. Such arguments are readily available. According to what Siegel calls Phenomenal Approaches, "conscious perceptual experiences provide justification at least in part in virtue of their phenomenal character" (Siegel & Silins 2014, 149). Relatedly, a phenomenal approach to intuitions is held by Chudnoff, who claims that we can be justified in believing the content of our intuitions in virtue of their characteristic phenomenology - he calls it 'phenomenal dogmatism' (Chudnoff 2011). A phenomenal approach to imaginative states in particular can be found in Dorsch's work (in a thesis he calls 'experiential rationalism'): according to which we can differentiate imaginary and perceptual states epistemically based on the fact that imagining characteristically comes with - and perceptual experiences characteristically lack - a 'phenomenal sense of agency' (Dorsch 2016), the unique feeling of being in control of a mental state.

Drawing on the forgoing views, we can classify a PD claim about the epistemic usefulness of the imagination as follows:

> PD: *Imaginative states and perceptual experiences are epistemically distinct due to key differences in their respective phenomenal characters*.

The Extremist version of PD, again, looks implausible. What exactly about having a different phenomenal character could render imaginative states epistemically useless? The Extremist would have to identify some phenomenal feature of imaginative states which could embody, if not explain why we can get nothing epistemically useful out of them. Even if we get a phenomenal sense of agency when we imagine, as Dorsch suggests, I doubt that this alone can render imaginative states epistemically useless. That said, some Moderate or even Radical view might still employ PD to explain why epistemically speaking, the imagination is a second-class citizen amongst the sensory states: the kind of view that Nanay, Hume and Dorsch's claims lead to. A Defender version is also available: Chudnoff tentatively extends his phenomenal dogmatism to the imagination: where imaginative states can justify some modal beliefs in virtue of having a species of 'presentational phenomenology' or phenomenal 'assertiveness'[7] (Chudnoff 2012, 61-62). This looks like a Defender view which is based on the denial of PD: where the epistemic usefulness of imaginative states is defended precisely in virtue of the phenomenal characteristics they share with states like intuitions and perceptual experiences.

The Agentive Difference [AD]

What Balcerak-Jackson calls the 'Up to Us' thesis (Balcerak-Jackson 2018) claims that the agency involved our imaginative states undermines them epistemically. For example, Teng has discussed how "Some imaginings lack evidential force because they are experiences that we fabricate for ourselves" (Teng 2016). Going a stage further, Langland-Hassan sketches an Extremist view which considers our imaginative states as pointless mental exercises, if we can decide their content for ourselves:

> Even if one were very careful with one's wishes, the fact that the content of an imagining is chosen would seem to render the imagining itself pointless. For it suggests that the content of the imagining was already present in one's intentions (why else would the imagining count as chosen?). If that is the case, why go through with it? Imagining becomes a kind of internal transfer of contents—the mental equivalent of handing yourself a dollar. (Langland-Hassan 2016, 61)

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7. You will also find descriptions of what such phenomenal features might add to the character of a mental state in (Briesen 2015) and (Koksvik 2017), although not in such explicit reference to *imaginative* states and *modal* beliefs.

To see why one might think that it implies their epistemic inferiority, we should get a handle on what is meant by calling an imaginative state 'fabricated by the subject', 'subject to the will' or, as we will put it: under agentive control. The target state will then be 'deliberate[8]' imaginative states only - we will take it as read that their contrary, spontaneous imaginative states, cannot be of epistemic use to use. We can borrow three sufficient, but not jointly necessary conditions for *at least partly* deliberate imagining from Spaulding (2016):

> i. *The imagining subject, S initiated their imaginative episode.*
>
> ii. *S is able to stop imagining at any point.*
>
> iii. *S has control over how the imaginative episode proceeds i.e. at any stage in the imaginative episode, S can choose what to imagine next[9].*

Two quick points of clarification: first of all, an 'imaginative episode' is a series of imaginative *states*, suitably bound – where imaginative states, like perceptual experiences, are individuated by their propositional content. In a deliberate imaginative episode, the imaginative states therein are united by their common aim *qua* the purpose for which the subject imagines. Deliberate imaginative episodes are thus imaginative *projects[10]*. Secondly, our agential control over imaginative episodes comes in degrees. So long as S sufficiently fulfills at least one of the above criteria, they imagine *part-d*eliberately, and fully if they tick them *all* off.

The basic idea behind the 'Up to Us' thesis is that the fundamental epistemic difference between perceptual experiences and imaginative states comes down to the fact that imaginative states are typically somewhat deliberate in the above sense. A more intricate version of the thesis would state that the degree to which a subject has agential control over their imaginative project will affect, on a negative sliding scale, the amount of justification they have for believing the content of its states. We will crystalize the

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8. These are also called 'voluntary' imaginative states by e.g. Williamson (2016).

9. Spaulding merges criteria (i) and (ii), which I have separated given that they naturally come apart; we can easily think of cases in which I chose to imagine but cannot stop and *vice versa*.

10. The term 'imaginative project' is used variously by different authors, but typically it is meant to capture different ways in which we can *use* the imagination e.g. in (Noordhof 2002) – I think this largely complements my employment of the term.

thesis using the former, simpler version, leaving it open to different explanations as to what connects the level of agential involvement in an imaginative state to its epistemic status:

> AD: *The agentive control we can exercise over our imaginative projects separates them epistemically from sensory states - like perceptual experiences - which are comparatively non-'deliberate'[11].*

An Extremist version of AD would fail, because it implies that sensory states which are *not* under our agentive control at all – including *spontaneous* imaginative states (which cannot fulfill any of (i)-(iii)) – are epistemically superior. Yet if I spontaneously imagine that p, as Spaulding observes, that should not give me any more reason to believe p than deliberately imagining *that p*. Spaulding argues that no matter whether S imagines deliberately (to any degree) or spontaneously: "Neither capacity is sufficient to bring about new knowledge of contingent facts about the world" (Spaulding 2016, 208). This looks *prima facie* like an Extremist view, but it is actually Radical, as Spaulding goes on to argue that imaginative states *plus* some relevant beliefs can lead to new knowledge, but that imagining *alone* never can.

Spaulding is right, at least, to qualify the AD thesis. Any advocate of AD has to explain why spontaneously imagining too fails to give us justification for believing its content, as well as why agentive control affects the justificatory status sensory states *in general* – perhaps by comparing imaginative states with analogous perceptual cases. Suppose that we can obtain a satisfactory explanation of both: in which case, a Moderate version of AD might hold water, to the effect that the epistemic usefulness of a state varies with how 'deliberate' it is. The Moderate would then have to distinguish the agentive control we can have over our imaginative states from *doxastic* control, if we want our beliefs to justify other beliefs as they traditionally have.

Aside from the difficulty of separating the two kinds of mental agency, the Moderate view has to answer Defender positions which explicitly deny AD. Kind (2016), for instance, argues that it is precisely our control over the content of our imaginative states, in terms of the epistemic constraints we can place on them, that furnishes their epistemic usefulness. Similarly, Langland-Hassan states that "we should not expect all the imaginings that improve one's epistemic standing to be accidental or uncontrolled. We

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11. Many perceptual experiences will also tick off some of the criteria for deliberateness *to some extent*, e.g. satisfying (ii): we can choose to *stop* perceiving simply by closing our eyes - but once they are open and fully-functioning, we cannot choose to stop having a visual experience.

should expect very many of them to be chosen, in just the way that useful bodily actions are usually chosen" (Langland-Hassan 2016, 63). We will look at the Defender position next.

Defenders

Defender views claim that imaginative states can be epistemically useful, albeit in different ways from other sensory states like perceptual experience. The most common Defender view accepts that the imagination can tell us little about what is *actual,* but can be informative about the *counterfactual*. More technically put, the Defender can argue that imaginative states can provide us propositional justification for modal beliefs in much the same way that perceptual experiences can provide propositional justification for beliefs about what is true in @. The basic idea, that imaginative states can teach us about what is metaphysically possible, is an old one. It can be found in Hume's dictum that "whatever the mind clearly conceives, includes the idea of possible existence" (Hume 1748/ 2000). Descartes too ran thought experiments in which conceivability was taken to imply possibility (Descartes 1911/1641). The dictum was revived more recently by Yablo (1993). Since then, the imagination seems to have gained even more epistemic ground. Kind and Kung describe how we can use our imaginative states 'instructively': "imagination is also sometimes used to enable us to learn about the world as it is, as when we plan or make decisions or make predictions about the future" (Kind & Kung 2016, 1).

Learning about the world 'as it is' no longer sounds like gaining *modal* beliefs viz. beliefs about non-actual possible worlds. If we predict the future accurately, then our belief is about @, even though it is *contingent*. I can also usefully imagine how things are in the actual world *at present*. I can imagine that my colleague is late for work because they are stuck in a traffic jam. That picturing this implies no contradictions might be then taken to support the *possibility* that it truly captures my colleague's whereabouts - even if this imaginative exercise cannot act as *evidence* to this fact, like *seeing* my colleague in a traffic jam would. Williamson (2016) outlined several cases in which we can work out what is possible for us, in the actual world, using our imagination. The idea is that an imaginative state, suitably set up i.e. based on knowledge of the situation and my own abilities, can give impetus for practical knowledge by telling us what we can reasonably expect to achieve in a given situation[12]. One example is of an explorer on a hike who

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12. For this reason, Williamson takes it that the imagination is not only epistemically useful, but can provide us with an *evolutionary* advantage (Williamson 2016).

meets a stream and wants to know if they can jump it. One way in which they can work out if this is possible for them is by imagining it. If, in their imaginative project, the explorer clears the stream then, Williamson argues, they have reason to belief that they can. This exemplifies a Defender position, which we can summarise as follows:

> Defender: *Deliberate imaginative states, suitably constrained, can be epistemically useful.*

There is a crucial aspect in the above formulation that is in wont of expansion: *which* epistemic constraints must be in place for an imaginative episode to be epistemically useful? In the next section, we will look at the various kinds of constraints that Defenders have proposed that, when in place, ensure that in certain imaginative episodes can be epistemically useful.

§2. Imaginative States Under Epistemic Constraints

To reiterate: Defenders of the epistemic usefulness of imaginative states should stipulate *what kind of* epistemic constraints should be in place to substantiate their claim. There are various divisions one can draw between the epistemic constraints relevant for imagining. Kind and Kung (2016) have identified two 'primary classes' of such: which we will call *architectural* and *willful* constraints accordingly. Willful constraints are those put in place by the imagining subject themselves. As Kind and Kung put it: they are "of the sort that we can (perhaps only when properly disciplined) voluntarily impose upon our imaginative project" (Kind & Kung 2016, 21). Architectural constraints, by contrast, are beyond our agentive control. They come into play when "our psychological architecture prevents us from imagining certain things or using the imagination in particular ways" (ibid.). Classic examples of such constraints include our inability to imagine contradictions or the logically impossible – as seen in e.g. (Hume 1748/ 2000). So purely spontaneous imaginative states would have to be controlled only by architectural constraints[13]. Yet one can still plausibly fulfill all of the criteria for imagining *deliberately* whilst there are architectural constraints in place - it is just that the control we have over our imaginative states must be within given cognitive limitations.

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13. At which point, I wonder what is still *imaginative* about this kind of state, where we are presented with a series of mental images which we have no way of controlling. That said, I will grant for now, for the sake of dichotomy, that we can have spontaneous imaginative episodes – but we will not discuss them further.

Both architectural and wilful constraints, according to Kind and Kung, can be further divided into *reality* and *change* constraints[14]. Reality constraints are concerned with ensuring that our imaginative states represent the truth as closely as possible, by imagining as *realistically* as we can. For example, in Williamson's cases where imagining subjects seek to answer questions of the form: *'can I ø?'*: in order to successfully meet this aim, their imaginative project should be sufficiently informed by knowledge of their own abilities and the environment concerned. So some reality constraints come into play when the aim of our imaginative project demands that we base what we imagine on the relevant facts from @. In other words: using non-modal facts as a basis can help us answer the modal question at hand by discovering *what is the case* in the relevant *close possible worlds* - using a Lewisian model of closeness between worlds (Lewis 1986). This is just one way in which reality constraints can be *wilfully* placed on an imaginative project[15].

Counterpart *change* constraints play much the same role as reality constraints. The only difference being that they are in place to ensure that the subject *continues* to imagine in a way that is maximally realistic; that each new event within the imaginative episode develops consistently with how things really would be, given that change. Again, such constraints can be architectural as well as wilful. Langland-Hassan provides examples of *architectural change* constraints which he calls *lateral* constraints. Lateral constraints can govern how the imaginative episode unfolds, state by state:

> …the idea is that imagination—both propositional and sensory— has its own norms, logic, or algorithm that shapes the sequence of i_x [imaginative states within the imaginative episode] after the initiation of an imagining by a top-down intention. These constraints might then play a role in explaining how the imagining is useful. (Langland-Hassan 2016, 67)

Langland-Hassan goes on to point to various inference mechanisms that make up the 'forward-processing' in our cognition: cognitive features which determine to an extent how our imaginative episode will proceed by auto-selecting the next images, determining some of the objects or events which occur in the imagined scenario. He

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14. Elsewhere, Kind stipulates that the *ideal* imaginer would have both kinds of constraint in place, to be able to learn from what they imagine (Kind 2018).

15. Note that reality constraints are not exclusively for epistemic uses of the imagination. I might also want to *fantasize* realistically!

gives the example of imagining a glass falling to the floor: we are almost condemned to imagining it breaking into several pieces, due to logical associations we make based on what we have experienced previously in similar scenarios. Though architectural, his lateral constraints nonetheless complement the deliberate nature of epistemically useful imaginative episodes, as Langland-Hassan describes them as core cognitive features of "Guiding Chosen" (GC) imaginings: "those that are both chosen (in being subject to the will) and suitable for guiding action and inference" (Langland-Hassan 2016, 63).

Similarly, Langland-Hassan outlines some of the *top-down* constraints on GC imaginings, including the intentions which govern both how we *initiate* our imaginative project and how the imaginative episode *develops*. Such top-down constraints can come from our set of beliefs and desires relevant to the aim behind our imaginative project: oftentimes, these are willful. For instance, when we want to imagine what the actual world would be like if a particular desire came true, we want to imagine *realistically*. In such cases, the governing desire(s), alongside true beliefs about how things are in @, can be allowed or even *made* to influence and restrict both how we start off our imaginative episode and how its states proceed, in order to meet this aim. These are then versions of *top-down*, *willful* reality and change constraints. As we will see in the next section, not all top-down constraints are willful; nor so benevolent to our imaginative project.

So various kinds of epistemic constraints on imaginative episodes can be either put in place by the imagining subject themselves or unwittingly as part of their cognitive architecture. Either way, these constraints can contribute to the epistemic usefulness of the imaginative episode. Moreover, those agent-governed constraints can operate *within* architectural constraints: hence, although they are restricted, our epistemically useful imaginative episodes are still *deliberate* and are thus *imaginative projects*. In the next section, I raise a worry for the foregoing Defender position: that even with many of the above epistemic constraints in place, the epistemic usefulness of an imaginative project can be undermined by *architectural, top-down* constraints which evade our agentive control and can scupper the work of the reality and change constraints in place. In such cases, we cannot learn what we want to from our imaginative states. If many imaginative projects are threatened by epistemic downgrade, this looks bad for the Defender position. In §4, I come to the Defender's defence by supplementing their position with some requirements for a particular kind of epistemic responsibility: one which the *ideal* agent would have over their imaginative projects in order to circumvent such negative influence.

§3. When Imaginative Episodes can be Epistemically Downgraded

Even with the right kind of epistemic constraints in place, there might be other constraints *beyond* our agentive control which negatively impact and *downgrade* the epistemic usefulness of an imaginative project. The following two cases serve as examples.

> **CASE A**: Subject T undertakes an imaginative project with the following aim: to imagine how it is to ride the Central Line on the London Underground. Crucially, T has never experienced this before – supposed that they have never even travelled to London, although they have some experience of other cities of a similar size with similar metro systems. In this imaginative project, T's imaginative states run as follows: they imagine a train carriage that is crowded. They imagine that there are seats along the sides of the carriages, bars to hold on to and advertising posters above the seats. Suppose then that T imagines a loud bang, that the carriage fills with smoke. T imagines that there has been a bomb attack on the train.

> **CASE B**: Subject W undertakes an imaginative project with the following aim: to imagine what it would be like to own a puppy – something they have never done before. They imagine a golden-furred, adorable and fluffy creature as their pet. Subject W goes into such detail as to imagine that their pet has a certain name, inscribed on a name tag, and is dressed in a cute coat. They imagine playing with their puppy, taking it for runs around the park and long weekend walks on the beach[16].

Cases A and B have their obvious differences: not least in the cognitive and emotional reactions they invoke. Case A looks like a comparatively unpleasant imaginative experience: sparking fears and anxiety rather than a yearning to try out that experience in reality. The opposite might be said for Case B: the pleasantness of which might very well foster a desire in subject W to get a puppy. Yet there is a common explanatory story available for both cases. Suppose that in either case, the subject was *primed*: perhaps shortly before they were asked to carry out their respective imaginative projects, T was shown a documentary film of the London 7/7 bombings and W was given a puppy to play with. In both cases, the subjects had little other experience relevant to

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16.   Thanks to my audience at the APS Meeting in Florida, September 2018, where this case was first suggested.

their imaginative project, so their primed experiences were *privileged* in influencing what the subjects imagined[17]. Importantly, these primed experiences *negatively* influenced the imaginative projects by *downgrading* them with respect to their epistemic usefulness. The rest of this section will be dedicated to outlining what that entails.

I borrow the term 'epistemic downgrading' from Siegel (2017). Siegel claims that just like beliefs, perceptual experiences have a 'rational standing': an epistemic status which can be either upgraded or downgraded, depending largely on what *influences* the experience. The epistemic status of a perceptual experience has several facets, including its capacity to justify beliefs based on its content. Background knowledge such as expertise, for instance, can epistemically 'upgrade' a perceptual experience, by bringing how things look to the perceiving subject to a finer-grained degree of accuracy. In doing so, the justificatory power of that experience is increased: there are more beliefs that the subject is *more* justified in having on its basis. In the opposite direction, negative influences like biases and false expectations can epistemically 'downgrade' perceptual experiences by ensuring that the experience misrepresents the facts - in which case, the experience loses justificatory power proportionally.

The idea that perceptual experiences themselves - not just the beliefs based on them - can have an epistemic status is not widely accepted; but it might be a *less* controversial thesis when it comes to imaginative states. If the worry is that epistemic statuses should be limited to 'offline' mental states – i.e. states which occur without having our sensory apparatus in operation, and involve our own thinking and rational input[18] – then imaginative states would be included whilst perceptual experiences are excluded. Either way, let us assume that imaginative episodes (*qua* a sum of their imaginative states) can have an epistemic status in much the same way as Siegel described for perceptual experiences: that impacts, *inter alia*, whether that state can provide propositional justification for beliefs based on their content. In particular, we want to see how this epistemic status can be 'upgraded' or 'downgraded' depending on the influences on the imaginative episode. This in turn will tell us how the epistemic usefulness of our

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17. We can generate similar results if we imagine that the subjects were not primed under controlled conditions, but that they independently had these particular experiences (seeing the documentary and playing with a puppy) which greatly influenced what they imagined. Likewise, we can look at the effect of un-primed biases built up over time, which may have come from various different sources.

18. For e.g. Williamson, this distinction hangs more on the latter point and with respect to if there is any agential control over our mental state, which makes imagining 'offline' and perceptual experience 'online' (Williamson 2016).

imaginative projects is affected by their various influences. Let us begin by seeing how this operates for perceptual experiences: looking in particular at cases in which experiences are epistemically *downgraded* due to negatively-influencing *cognitively penetration*.

Cognitive penetration (CP) is the thesis that cognitive states like beliefs and desires can have a top-down influence on perceptual states, as outlined in e.g. (Macpherson 2012). Siegel (2017) discusses a case of CP from an experiment outlined by Payne (2001). In the experiment, subjects were quickly shown the image of the face of a black man - so quickly that it went unnoticed. Next, they were shown a kind of tool. Participants tended to over-report seeing the tool as a handgun when it followed the black prime; especially compared with when they were primed instead with a white man's face. The CP explanation is that the subject's biased beliefs, linking black men to gun crime, penetrated the content of their perceptual experiences, leading them to misrepresent the tool as a gun[19]. CP experiences, as Siegel puts it, lose their 'forward-looking epistemic power' (Siegel 2017, 67); – by which she means that, regardless of whether there is a known defeater, the subject lacks justification for believing that what they saw was a gun.

If a CP thesis can be extended to all sensory, not just perceptual states, can A and B (and analogous cases) be explained in terms of CP? Yes, and no. There is certainly a great deal of overlap between perceptual CP cases and imaginative projects like A and B. For one, the negatively-influenced imaginative states in A and B, like classic CP perceptual cases, seem to be *self-confirming*. Siegel gave the example of perceiving subject Jill, who misreads Jack's smiley expression as 'angry' because she *expected* him to react angrily to a given scenario (Siegel 2012). The CP experience is 'self-confirming' because the belief that the subject would take up – if they recognize no defeater - is *almost the same* as the CP-belief that epistemically downgraded the experience in the first place. Any up-taken belief, of course, would be *unjustified*. Analogously, imaginative states which have been swayed by our beliefs and desires seem to confirm those same beliefs and desires. If imagining *that p* normally gives me reason to think *that p is possible* then the imagining subject in A and B might mistakenly take themselves to be justified in believing *that p is possible*, without realizing how that same belief had fueled what they imagined. Again, we can fiddle with whether or not their awareness of this is necessary for the subject to lose propositional justification (Siegel would deny this, but the traditional phenomenal

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19. As in our cases above, analogous cases could be run without a prime, where the cognitive penetration of a biased belief is still behind the inaccurate experience.

conservative would insist on it). Either way, it looks like there is a similar epistemic story at work in both cases like A and B and CP perceptual cases.

These perceptual and imaginative states also have a *structural* resemblance, as far as some other state has affected their content. In the perceptual case, it is supposed to be *surprising* that there can be such interferences by cognitive penetration– especially to those who want to keep a sharp divide between perception and cognition. In the imaginative case, by comparison, this is *unsurprising*: we heard in §2 how imaginative episodes are governed by all kinds of influences, including ones which come 'top-down' from cognition. Many of these constraints on imagining are even put in place by the imagining subject themselves. However, the infiltrating influences on the imaginative projects in cases A and B are primed biases which are beyond the imagining subject's control. *These* should be surprising. The idea is that states we are not even aware of, let alone in control of, can affect what we imagine, in turn affecting the epistemic status of such exercises. The upshot of this analysis should have some force resembling meeting a CP case for the first time in the epistemology of perception.

Yet can we call those negative influences in cases A and B 'top-down', in the same way that biases can cognitive penetrate perceptual experiences 'top-down'? A *top-down* influence comes 'down' from *one kind of state* to another[20]. Compare this with a 'side-on' influence, which would be between two states of like kind. In cases A and B, the primed biases that negatively influenced the imaginative project were *beliefs* triggered by perceptual experiences, rather than *other imaginative states*. Likewise, in CP cases: although past experience surely shaped and triggered biased beliefs that infiltrated the experiences, those beliefs were the culprits of the epistemic downgrade. So CP perceptual cases resemble A and B this far: other states have interfered with the sensory state, and the role they have played is negative.

In other, structurally similar cases, imaginative projects can be *positively* influenced in a way which mirrors CP-*expert* cases, in which the epistemic status of a perceptual experience is *increased*. When an imagining subject places wilful epistemic constraints on their imaginative states – such as letting justified, non-modal beliefs act as *reality* and *change* constraints, to make their imaginative project more realistic, doing so

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20. This is different to Langland-Hassan's (2016) distinction between 'top-down' and 'lateral' constraints, from §2. His top-down constraints also come from other states like belief and desires and his *lateral* constraints come from the part of the mind which governs imagining (and plausibly other related sensory states like dreaming); but he thinks of top-down influences as normally *reality* constraints i.e. initial intentions to imagine, and *lateral* constraints a version of *change* constraints, which govern how the imagination proceeds.

can epistemically *upgrade* the imaginative project. However, in cases A and B we are concerned with an epistemic downgrade by *architectural, top-down* constraints: primed biases which infiltrate in a way the subject has no obvious control over. These are our interesting epistemic cases, suitable for comparison with the aforementioned cases in which CP epistemically downgraded a perceptual experience.

So the cases look analogous; yet there are some clear and important differences between them. The impact of the epistemic downgrade on an imaginative project differs from perceptual CP cases: in particular, in *what* the states concerned *misrepresent*. In CP-downgraded perceptual experiences, the content *misrepresents* what is the case: the experience says that p where p is false. An imaginative state, by comparison, is not 'misrepresentative' if its content is not true in @. The kind of misrepresentation that goes on in negatively-influenced imaginative cases like A and B, rather, is in representing a *remote* possibility as a *live possibility*[21]. A live possibility is a metaphysical possibility which is quite likely to become actual - in Lewisian terms: *close* possible worlds which could easily become @ in the near future. Accurately selecting these will hinge on knowledge of a host of information which builds up a picture of what is 'normal' or 'expected' in a given situation, in a way that gives a comprehensive enough picture of what it typically involves.

Let us take it that in both cases A and B, the subjects aimed to imagine what the proposed situations would really be like[22] i.e. to imagine *realistically*. To a limited extent, both subjects met this aim. In the first case, T imagines typical features of underground trains which Central Line trains indeed have. Likewise, subject W imagines events that typically occur when you own a puppy. Yet in both cases, much of what they imagine is also unrealistic. In Case A, a one-off, extreme event – a terrorist attack – is presented as if it could be an everyday occurrence on the London underground. A remote likelihood

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21. We might be unreliable at at accurately imagining *how likely* a scenario is to occur for *various* reasons. On the one hand, our emotional states tend to play an overly-prominent role in selecting amongst imagined likelihoods, according to 'affective forecasting'. Moreover, some of our experiences and beliefs are favoured for influencing what we imagine due to their *availability*, leading to a mental shortcut called the 'availability heuristic'. (Kahneman 2011). In both cases some experience, emotion or belief is over-priviledged in how it informs the imaginative project: leading to negative, top-down influences akin to those at work in cases A and B. These are not alternative explanations but *comparable case*s, as cases A and B look specifically at constraints derived from *primed biases*.

22. This should be distinguished from imagining *what it is like* to have the relevant experiences. For reasons we can learn from Mary's Room argument (Jackson 1986), the phenomenal character of an unexperienced experience is *unimaginable*.

is mispresented as likely, due to the influence of the prime (the documentary). In other words, the imaginative episode is *overly selective*. What W imagines in Case B, on the other hand, is *under*-selective. Their imaginative project features nothing of their possessions being chewed on, mess in their house or being woken by barking. Hence W *under-represents* the real experience of owning a puppy. The *purely* positive puppy-raising experience is a remote possibility misrepresented, as in Case A, as a live possibility. Both imaginative projects, in misrepresenting the live possibilities, fail to meet their aim of being realistic. Furthermore, the primed biases which epistemically downgrade the imaginative projects in A and B also impact their justificatory status. If either subject T or W takes their imaginative episode at face value, they will *believe* that their imaginative states represent live possibilities[23]. Any belief to this effect is undercut by the epistemic downgrade: either automatically, as in Siegel's system, or as soon as the imagining subject becomes aware that a primed bias, or whatever interference, negatively influenced their imaginative states (as in the PC system).

To recap: the negative influences of the primed biases in cases A and B are *architectural, top-down* constraints on the imaginative project which scupper, if not supersede, any reality and change constraints the subjects may have willfully put in place. They do so, in the cases we have looked at, by making the imaginative states misrepresent their modal distance from @. In doing so, the whole imaginative project, is epistemically downgraded. Another way of putting this is to say that the biases have undermined the epistemic usefulness of the imaginative episode. If such cases are pervasive, then we often walk around with unjustified, false beliefs about what the live possibilities are due to the infiltration of bias. In which case, it is harder to defend the epistemic usefulness of the imagination. Any Defender needs to show how their view can accommodate, if not remedy cases like A and B. In the following section, I indicate how this might be done.

§4. Epistemic Responsibility for Negatively-Influenced Imaginative Projects

We are familiar with implicit bias as a widespread phenomenon: it pervades how hiring committees select amongst job applicants, how police identify criminals and more generally, how we socially interact. Instances of implicit bias which negatively downgrade any kind of cognitive, especially epistemic state – shaping false beliefs or reconfirming them via cognitively penetrated perceptual experiences – are a regrettable fact of life. This means that many cases of imagining which we thought were epistemically useful

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23. Again, assuming that conceivability implies probability and that conceiving and imagining cannot come apart (contra e.g. (Balcerak-Jackson 2016)).

turn out not to be. This is bad news for anyone defending a position on which the imagination can be, and often is, epistemically useful. The epistemic constraints that Defenders put in place need to confront cases like A and B and show how epistemic agents might steer their imagination away from bias. Furthermore, the very process itself can be epistemically useful in another sense: the imagination can be a forum in which such biases are *exposed*. Assuming that the presence of bias can be accessible by introspection alone on our imaginative states, the positive epistemic consequences then multiply: if we can reflectively expose our biases through our imaginative projects, we can surely also thereafter address our biased beliefs.

I will suggest an explanation on behalf of the Defender as to how imagining agents can combat the threat of epistemically downgraded imaginative projects by biases and once again show how our imaginative projects can be epistemically useful. This can be achieved by outlining demands for a certain kind of 'epistemic responsibility'. These demands should be taken *descriptively* rather than as prescriptive epistemic norms: they are about how *ideal* epistemically responsible agents B *would best respond* to such situations, in order to minimize the negative effect of the bias. This should not be confused with *blaming* subjects who fail to realize that their imaginative project has been skewed by bias. *Epistemic* responsibility does not concern how *morally* responsible a subject is for being susceptible to such biases.

I will lay out three ways in which the ideally epistemically responsible imagining agent would address being in a case like A or B The first step is to *notice* the negative influences on their imaginative states: realize *which* biases have influenced what they imagine and *in what way*. The second two aspects concern how they would then react appropriately, in order to better their epistemic situation. This involves, on the one hand, acknowledging *which* imaginative states they lack justification for believing the content of due to the negative influence. Next, where possible, the epistemically responsible imagining agent would steer their imaginative states *away* from such negative influences.

(i) Explicating our Implicit Bias

It may well be that the ordinary imagining agent cannot help their imagination being skewed by bias from time to time, but that nonetheless they have the means to notice the presence of bias. Even in primed cases, this is typically available to introspection. The presence of a prime might even be obvious to the subject *during* the experiment. If not, it can easily be brought to their attention afterwards. By introspecting on our imaginative projects and tracing a prime to the false experience it leads to, we can expose our bias.

For example, in the cognitive penetration case from earlier, the image of a black man's face acted as a prime for misrepresenting a tool as a gun, exposing a biased association of black males with gun crime.

In the perceptual case, we would typically do this introspective work once the penetrated experience has ended and work on our biased beliefs afterwards. Due to the dynamic nature of imaginative episodes, however, this kind of reflection can even be done *whilst we imagine*. Moreover, we can also *act on it* midway through our imaginative project: given our definition of imaginative projects as a set of imaginative states united by a common aim, it remains the same imaginative project, so long as the subject retains their original aim. So, given enough time, we can change the course of our negatively-influenced imaginative projects so as to reverse their epistemic fortunes. The next two points explain how such changes might be implemented.

(ii) Acknowledging the Impact of the Epistemic Downgrade

How would the ideal agent react *upon recognizing* that they are in cases like A and B? First of all, it would be a rational response to stop believing that those affected imaginative states represent live possibilities; *rational* because it manages their beliefs in a way that points them to truths and away from holding false beliefs. Noticing that our imaginative project has been negatively influenced is a defeater on the affected imaginative states - and awareness of a defeater, according to the Phenomenal Conservative, is sufficient to undercut *prima facie* justification. For the likes of Siegel, the demand for awareness is not even in place: the subject loses that justification as soon as their imaginative states are negatively influenced, regardless of whether or not they are aware of it. Awareness of this, however, would at least bring the imagining agent up to date with the 'actual' rationality of their imaginative states.

Again: they do not lose justification for believing that what they imagine represents what is possible: but for believing that the relevant imaginative states represent *live possibilities*. This would amount to readjusting their beliefs in order to correctly capture the modal distance of their imaginative states from @. On the one hand, this involves believing that those imaginative states which represent remote possible worlds *do indeed* represent just that. On the other hand, it also involves reconfiguring the project to include *new* imaginative states which better capture the live possibilities. This is our third and final point.

<u>(iii) Counteracting the Negative Influence of Bias</u>

The changes we make in reaction to noticing negative influences on our imaginative projects can help push against the epistemic downgrade they bring about. The idea is that, given the mental agency we can exercise over our imaginative states, we can choose to imagine things *differently*, in a way that more accurately represents the live possibilities. In case A, for instance, this would involve the subject actively choosing to stop imagining an explosion ensuing and imagine instead some everyday occurrences on the London Underground: commuters scrolling on their phones, reading newspapers, passengers standing up and swaying as the train changes speed. In doing so, the subject steers the imaginative project closer to reality: it starts to become epistemically useful again, better representing the typical experience of riding the London Underground.

I am sure that reconfiguring our imaginative states like so is not the *only* way in which we can counteract the negative influence of bias on imaginative states, but it is surely the best we can do *whilst* we are imagining. Reflecting on the way in which biases shape what we imagine will naturally lead on to other changes, including working to reverse the biased beliefs themselves - but this kind of epistemic project is no longer just about buffering the negative influence that such beliefs can have on our *imaginative* projects.

§4 Summary

Asking an imagining subject to notice and react to the presence of bias in the above way is arguably *demanding*. To reiterate, meeting (i)-(iii) – noticing the negative influence, adjusting their beliefs accordingly and changing what they imagine to better fit the live possibilities – would be the reaction of the *model* epistemically responsible agent. This is fitting: the epistemic constraints within the Defender views outlined in §2 are also ones which the *ideal* imaginer would places on their imaginative projects – Kind, for instance, describes how robots with ideal imaginations would follow *reality* and *change* constraints to a tee (Kind 2016). Moreover, this is only concerns imaginative projects with an *epistemic* aim. When our imaginative projects are *non-epistemic*, like when we fantasize, it may not be healthy for the imaginative states to be driven by bias but there is *no harm done*, epistemically speaking!

§ Closing Thoughts

Like perceptual experiences, imaginative projects can be epistemically downgraded by the negative impact of biased beliefs, whether primed or otherwise implicitly at work

when we imagine. Surely, positive influences could epistemically upgrade an imaginative project too - but we have just focused on the bad cases. The thesis is arguably less surprising than in the perceptual case: given that imagining is done *offline*, and typically under our agential control.

As imagining subjects can determine the content of their imaginative states, so they should also be able to introspectively notice which states in an imaginative episode they have *not* controlled: to call out and source the negative influence of a bias. It is often also within our power, in such cases, to *change* what we imagine. Doing so, as well as adapting their beliefs accordingly, is what I have argued the ideal, epistemically responsible imagining agent would do. Taking such responses into account, the imagination becomes epistemically useful in an *additional* way: as a venue in which our biases can be exposed. The remedy is local, of course; the problem of implicit bias is much wider than such cases – but looking at such cases turns out to bolster rather than undermine the Defender position, as it turns out the the imagination is epistemically useful in a *variety* of ways.

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