

Justification by Imagination

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Abstract: The goal of this paper is to argue that perceptual imaginings are a source of justification. The widespread skepticism about a justificatory role for imaginings stems mainly from the observation that what we imagine, unlike what we perceptually experience, is up to us. I argue that understanding the recreative nature of imaginings provides us with an explanation of why what we imagine is not completely up to us, but is systematically constrained by the general structure of perceptual experience. And, I show how on this basis imaginings justify us in interesting beliefs about the structure of our experience and the structure of the world.

The highest exercise of imagination is not to devise what has no existence, but rather to perceive what really exists, though unseen by the outward eye--not creation, but insight.

Henry Wadsworth Longfellow

Introduction

Do you think our capacity of imagination is a source of justification? If you think it isn't, then in this paper I will try to convince you that you are wrong. If you think it is, then here is a puzzle about imagination for you: Imagination is under our voluntary control, and imagining a certain situation does not commit us to things actually being the way we imagine them to be. In other words, what we imagine is up to us. How then can imagination provide us with any justification? In what follows, I will provide what I take to be the best answer to this puzzle.

The strategy is to look at the similarities as well as the differences between perceptual states and imaginings in order to argue that the imagination has a specific epistemic value. It is relatively uncontroversial that perception is one – if not *the* – paradigmatic source of justification for our everyday beliefs. The idea is that if we focus on two things, a) the full range of properties in virtue of which perceptual states justify, and the full range of beliefs that they provide justification for, and b) the similarities, rather than the differences, between imaginings and perceptual states, then we can explain why imaginings have epistemic value, and what that value is.

The paper is organized in four sections: In section 1 I will explain why philosophers have been traditionally skeptical about the possibility of acquiring justification by imagining things. I will identify the Up-To-Us Challenge as the predominant problem that an account of the epistemic value of imagination faces. In section 2, I will discuss a recently popular picture of how we can make epistemic progress by imagining things: On this picture, while imagination is silent on what is actually the case, it is a guide to what is metaphysically possible. However, I argue that it does not offer a good answer to the Up-To-Us Challenge. In section 3, I will present an alternative picture on which imagination, thought of as a recreative capacity that stands in a close relationship to our perceptual capacities, provides us with information about experiential possibilities. And, in section 4, I show how information about experiential possibilities can provide justification for interesting beliefs about the structure of the human mind, and about the structure of the world.

Two clarifications are in order before we proceed:

First, what we call imagination is heterogenous.¹ Here are just a few reports of mental attitudes that, at least taken at face value, report or ascribe states of imagining:

- (1) Alice imagines the Cheshire Cat.
- (2) Alice imagines the Cheshire Cat grinning.
- (3) Alice imagines a caterpillar smoking.
- (4) Alice imagines herself eating a cookie.
- (5) Alice imagines seeing a white rabbit with a pocket watch.
- (6) Alice imagines that the Cheshire Cat is grinning.
- (7) Alice imagines that caterpillars smoke.
- (8) Alice imagines what it would be like to disappear.

According to the list above, the attitude of imagining can be held towards such different kinds of relata as objects, such as the Cheshire Cat, actions, such as eating a cookie, other mental states, such as seeing, and propositions such as ‘caterpillars smoke’. (1)-(8) also report or ascribe mental states with different kinds of representational contents: While (1) leaves it unspecified what Alice is doing when she imagines the Cheshire Cat, that is which kinds of properties her imagining of the Cheshire Cat is representing, (5) is explicit

¹ Amy Kind convincingly argues for this claim in detail in Kind (2013).

about representing the visual properties of a white rabbit, and (4) is most naturally read as involving the representation of gustatory properties of a cookie. Given the heterogeneity of what we call imagination, one should not expect to be able to give one answer to the question of what epistemic role imaginings, as a general class, have. Rather, one needs to focus on core notions of imagination. I will focus on objectual imaginings, that is mental states in which a subject bears an imagination relation to an object or an event – in a wide sense, such as the states reported in (1)-(5) and (8) – rather than to a proposition. This is an important restriction, because the psychological nature and the epistemic roles of objectual imaginings and propositional imaginings are quite different.² I will also focus on visual imagination, that is on imaginative representations of the visual properties of objects and events. But I think that my answer generalizes to other types of imaginings that correspond to other conscious experience types, most notably imagining that are closely associated with other sense modalities.³

Second, I will argue that imaginings provide *prima facie* justification for certain kinds of beliefs. That is I will argue that being in an imagining state can make it epistemically appropriate for us to accept a certain belief in the absence of defeaters.

Clearly one cannot give a fully developed picture of the epistemic value of the imagination within one paper any more than one could of the epistemic value of perception. Accordingly, the paper will rely on some common assumptions about epistemological matters. And it will rely on a view of the nature of imagination that I take to be plausible and defensible, although I will not provide much defense for it here. The goal is to provide basic answers to some fundamental questions.

1. The Up-To-Us Challenge

Traditionally, many philosophers have been skeptical about the idea that imagination is a source of justification. And this skepticism can be found across philosophical traditions.

² In fact, I believe that the latter states are more precisely reported using “supposing” or “conceiving”-talk rather than “imagining”-talk. For a useful taxonomy of imagining, supposing and conceiving, see Balcerak Jackson (forthcoming).

³ How far it generalizes depends on your view of such mental states as beliefs, desires etc. and whether they have counterparts among imaginings.

Both Wittgenstein and Sartre, for instance, believed that imagination cannot teach us anything.⁴ According to common sense, the cognitive capacity of imagination is mostly associated with creative projects rather than with a systematic pursuit of knowledge. So unsurprisingly, talk about imagination is often intertwined with talk about phantasy, fancy, fiction, dreaming and the unreal. From this perspective, our cognitive capacities of imagination and perception could not be more different. While perception informs us about the character of the world surrounding us, imagination allows us to invent worlds that are anything but like the world surrounding us.

Admittedly, not only artists, but also many scientists allocate an important role to the imagination for their work. However, even scientists who emphasize the importance of imagination for empirical research tend to situate its value in the context of discovery rather in the context of justification.⁵ Albert Einstein's famous quote, "Imagination is more important than knowledge," for instance, is part of his answer to an interviewer's question about what accounts for the discoveries he made, rather than part of an explanation of what evidentially supports them.

Undisputedly, imagination has a creative use. The fictional world of *Alice in Wonderland*, for example, is a product of Lewis Carroll's creative process that presumably crucially involved acts of imagination. But why should we believe that imagination does not also serve an epistemic role? Is the traditional view of imagination a mere tradition, or is there a line of thought supporting the idea that imagination cannot serve an epistemic role? Or in other words, is there a reason to think that imagination is, by its very nature, such that it cannot provide us with justification?

Even though it is hard to find explicit arguments in the literature for the claim that imaginings do not justify, philosophers have sometimes hinted at reasons for their skepticism. In *Zettel* Ludwig Wittgenstein writes:

⁴ Wittgenstein (1981), Sartre (1972)

⁵ However, an empirically constrained use of perceptual imagination can be put to use in science and engineering in order to support hypotheses and help us choose the right course of action. Kind (this volume) develops such a proposal.

“Imaginings tell us nothing about the external world (...) Imaginings are subject to the will. (...) It is just because forming an imagining is a voluntary activity that it does not instruct us about the external world.”⁶

And in the *Psychology of Imagination* Jean-Paul Sartre states:

“The image teaches us nothing. (...) No matter how long I look at an image, I shall never find anything in it but what I put there.”⁷

In a similar spirit, in his book-length treatment on the imagination, Alan White remarks that, “one can’t be surprised by the features of what one imagines, since one put them there.”⁸

In informal terms, the basic common idea is the following. Imaginings are under our voluntary control. If imaginings are under our voluntary control then what we imagine is determined by what we want to imagine rather than by how things are. In a slogan: imaginings are up to us.⁹ Therefore, imaginings cannot teach us about anything, or at least not about anything that we didn’t already know. Let us use the slogan to call this line of thought the *Up-To-Us-Challenge*.

Let us look a bit closer at the components of the Up-To-Us-Challenge. The starting assumption is a claim about the very nature of imagining as a type of mental state, namely the claim that imaginings are under our voluntary control. There are at least two plausible senses in which imaginings can be said to be under our voluntary control, or up to us: First, imaginings are mental states that we do not passively endure, but that we intentionally engage in when we choose to do so. And second, imaginings are mental states whose content is determined by what we choose to imagine.

⁶ Wittgenstein (1981), §621 and §627.

⁷ Sartre (1972), Sartre’s use of image includes mental imaginings.

⁸ White (1990).

⁹ This slogan appears regularly in literature on and discussions about imagination. One prominent instance is Tamar Gendler’s survey article on imagination in the Stanford Encyclopedia of Philosophy, Gendler (2012).

If we understand imaginings very broadly, then not all imaginings are under our voluntary control in the first sense. When we daydream, certain images of desired circumstances sometimes simply pop into our heads without us deciding to form them. And psychopathological conditions like schizophrenia – at least on some accounts – involve a misidentification of involuntary visual imaginings as perceivings. However, if we understand imagining in the core sense indicated above, then the practice of imagining is something we at least usually can and do engage in voluntarily. Or at least, we can assume so for the sake of this paper. The aim is to show that for imaginings to be voluntary in this sense is no obstacle to them being a source of justification.

Prima facie, imaginings in the core sense are also under our voluntary control in the second sense. When I set myself to imagine a cookie, then usually I imagine a cookie. Had I decided to imagine an apple, then presumably I would have succeeded in imagining an apple instead. It is of utter importance for the creative use of the imagination in the arts that the external world does not put limits on what we can choose to imagine. So, it really does seem that the contents of our imaginings are up to us – or, in the metaphor used by Sartre and White, that we are the ones who “put” into our imaginings what we can find there. It is this second sense in which imaginings are under voluntary control that is crucial for the Up-To-Us-Challenge.

To see how being under our voluntary control might pose a problem for being a source of justification, it is helpful to focus on the way this feature differentiates imaginings from perceptual experiences. Unlike imaginings, perceptual experiences are under voluntary control in neither the first sense of the term, nor in the second. Perceptual experiences are mental states that we simply undergo as soon as we move about our environment with our eyes open. And how things look to us in our perceptual experiences is decided not by us, but by and large by the visible properties of our external environment and their interactions with sub-personal elements of our perceptual apparatus. Moreover, and importantly, the ways in which perceptual experiences are outside of our voluntary control are the most important part of the explanation of their epistemic value. Perceptual experiences provide us with justification for beliefs about what the external environment is like, in part, because we simply undergo perceptual experiences when causally interacting with the external environment, and because the

contents of these experiences are determined by causal or functional relations to properties instantiated in it.

On most accounts of perceptual justification, perceptual experiences provide justification only if this systematic causal and/or functional hook-up with the environment is in place for the class of states as a whole.¹⁰ It is not important that some perceptual experiences – the ones we call hallucinations – do not actually result from an adequate proximal causal input, nor that some perceptual experiences – the ones we call illusions – do not represent the external environment as it actually is. What is crucial is that the perceptual experiences of a given subject, in general, are systematically fixed by her external environment. In more metaphorical terms, perceptual experiences provide us with justification partly because when we undergo them the world imposes itself on us.

Accordingly, one way of spelling out the Up-To-Us Challenge proceeds by way of dis-analogy: Perceptual experiences provide justification only because their occurrence and their content is systematically fixed by the external environment. Contrary to perceptual experiences, imaginings are under our voluntary control, and so their occurrence and their content is not systematically fixed by the external environment. So, imaginings cannot provide justification in the same way perceptual experiences do.

Obviously, this argument by dis-analogy cannot establish the strong conclusion that imaginings cannot provide justification at all. It merely challenges us to find a plausible story about what could ground such justification by imagination, if not the familiar types of external relations that are assumed to ground perceptual justification – the paradigmatic source of (non-inferential) justification.

There is a more abstract additional line of reasoning that can strengthen the argument by dis-analogy with perceptual experience. Jean-Jacques Rousseau once said “The world of reality is limited; the world of imagination is boundless.” On such an understanding of imagination, the claim that imaginings are up to us does not merely mean that their

¹⁰ This is certainly true for all accounts of perceptual justification – whether externalist or internalist – that require perceptual experiences to be reliable, whether they construe this condition as sufficient or merely necessary for perceptual justification. There are of course accounts of perceptual justification, such as dogmatism, that explain the justificatory power of perceptual experiences by reference to their distinctive presentational phenomenology, rather than any causal or functional relations to external objects and their properties. See Pryor (2002), Huemer (2007).

occurrence and their content is not systematically fixed by our external environment. It means rather that it imposes no limits on what we can imagine. However, if there are no limits to what we can imagine, then imagination cannot give us justification, because justification always involves ruling out alternatives. Any piece of evidence that a source of justification provides rules out a set of alternative hypotheses about how things are. This is just what it means to have evidence. For example, the fact that I have a perceptual experience that represents a red cube in front of me rules out – or at least speaks against – any hypothesis on which there is an object in front of me that has a color other than red. But if there are no limits to what I can imagine, then the fact that I have an imagining that represents P does not rule out – or speak against – any set of hypotheses about how things are. The conclusion of this second way of spelling out the Up-To-Us Challenge is not merely that it is mysterious how imagination could serve as a source of justification, but rather that the fact that imaginings are up to us makes it impossible for them to provide justification.

So, the upshot of the Up-To-Us-Challenge is that the voluntary nature of imagination is incompatible with, or at least in tension with imaginings having a justifying role. The resulting task for anybody defending the claim that imaginings justify is to explain why this line of thought, though intuitively appealing, is ultimately flawed.

2. Imagination as a Guide to Possibility

You might think that there is already a good account of the epistemic value of imagination. On this account, imagination might not tell us about the character of the actual world, but it does tell us about how things could have been. On this view, the epistemic value of imagination consists in the fact that imaginability – or conceivability, as some prefer to say – is a guide to possibility.¹¹ On such an account of modal epistemology, possibility is typically understood as metaphysical possibility.¹² The idea is

¹¹ Different accounts of this very general kind have been suggested by Chalmers (2002), Menzies (1998), Yablo (1993). Typically the authors do not make a clear distinction between imagining and conceiving. So even though I believe that we should ultimately distinguish these two types of mental states, I will set aside this issue here.

¹² Let us set aside any intricate worries about the character of metaphysical possibility for the sake of this discussion. And obviously, if you are a skeptic about metaphysical possibility then this account of the epistemic value of imagination is not for you.

that if we can imagine P, then we are *prima facie* justified in believing that P is metaphysically possible. The answer that such an account gives to the Up-To-Us Challenge is the following: imagination provides us with justification for beliefs about what is possible because, even though imaginings are not systematically constrained by the external environment, they are constrained by the realm of metaphysical possibilities.

There are two main problems with this account:

First, the account offers no explanation of why our imaginings should systematically track what is possible. In the case of perceptual experiences we have a fairly good explanation of how the external world systematically constrains what we perceptually experience in given circumstances. But what makes it the case that the realm of possibilities constrains the ways in which imaginings are up to us, and thereby grounds their justificatory power? To say that this is just a brute fact about our capacity of imagination is simply not very satisfactory.

And second, on an intuitive understanding of what it takes to imagine something, there are counterexamples to the claim that imaginability entails possibility. We can imagine water having a chemical microstructure different from H₂O, but water is necessarily H₂O. We can imagine tigers being a type of robot manufactured by a secret high-tech company, but tigers are necessarily a biological species. On the standard understanding of metaphysical possibility, what is metaphysically possible is partly determined by the hidden underlying natures of things. But our imagination does not seem to be attuned to such hidden underlying natures. So, we can imagine things as having different hidden underlying natures than they actually have. Similarly, we can imagine complex mathematical claims, such as ‘The set of integers is the same size as the set of odd integers’ to be false when in fact they are necessarily true.¹³

One might object that the existence of counterexamples to the claim that imaginability entails metaphysical possibility is not yet enough to establish that imaginability is not a good enough guide to possibility to provide us with justification for what is metaphysically possible. However, it is difficult to assess how widespread the problem due to necessities determined by underlying natures really is. And it is unclear how one ought to control the use of one’s imaginative capacity in order to minimize or correct for

¹³ See for example Chalmers (2002).

the errors it delivers in such cases – as one controls the use of one’s perceptual capacities to minimize or correct for systematic illusions and the like.

There are three main strategies for defending the idea that imaginability is a guide to possibility. First, one can reformulate the claim as one about possibility and a restricted kind of imaginability, such as *idealized* imaginability. Second, one can reformulate the claim as one about imaginability and a restricted kind of possibility, such as *conceptual* possibility. And third, one can restrict the range of contents for which the relation between imaginability and possibility holds.¹⁴ All three strategies – and possible combinations thereof – suffer from some problems. The attempt to secure the connection between imagination and possibility by moving from imaginability to idealized imaginability comes at the cost of cutting the connection between modal epistemology and psychological reality. We are interested in the epistemic value of imagination as a cognitive capacity that we as ordinary subjects actually possess, not in the question of whether an ideal subject to whom we bear a very distant relationship would be justified in accepting claims about what is possible on the basis of exercising her cognitive capacities. The attempt to secure the connection between imagination and possibility by moving from metaphysical possibility to conceptual possibility deprives the claim from its original appeal. And it is difficult to find a plausible way to restrict the use of our imaginative abilities in a way that would be guaranteed to provide us with a guide to possibility. But more importantly, none of these strategies provides us with an answer to the fundamental question in virtue of what the things we imagine are constrained by what is metaphysically possible. These strategies might give us an answer to the Up-To-Us Challenge, but without an explanation this answer will not convince a skeptic.

3. Recreative Imagination and Possible Experiences

Here is an alternative explanation of the epistemic value of the imagination in nuce: imagination provides justification in virtue of being a recreative or simulationist cognitive capacity. In this section, I will develop this explanation in detail. First, I will say more about what it means to be a recreativist or simulationist about imaginings, and why we

¹⁴ Of course, it is also possible to combine these strategies within a single imagination-based account of modal epistemology. Chalmers (2002) ultimately pursues such a modified version of the general account.

should be recreationists or simulationists about imaginings. Second, I will explain how the recreativist picture allows us to exploit the relationship between perceptual experiences and imaginings in order to argue that imagination plays a justificatory role. And I will show how this picture offers us a good solution to the Up-To-Us Challenge.

On the recreativist or simulationist picture, imagination is fundamentally related to perspective-taking or perspective-shifting. It is a capacity to put oneself in the perspective of another subject who undergoes a mental act such as perceiving, feeling or believing. When I imagine seeing an apple, I take up the perspective of a subject who actually has a perceptual experience of an apple. When I imagine being jealous, I take up the perspective of somebody who experiences the feeling of jealousy.

In their book-length treatment of the imagination as a “recreative” capacity Gregory Currie and Ian Ravenscroft describe their view as follows:

So what is the recreative imagination? Here is our central hypothesis. Imaginative projection involves the capacity to have, and in good measure to control the having of, states that are not perceptions or beliefs or decisions or experiences of movements of one’s body but which are in various ways like those states – like them in ways that enable the states possessed through imagination to mimic and, relative to certain purposes to substitute for perceptions, beliefs, decisions, and experiences of movements.¹⁵

Similarly, Alvin Goldman identifies a simulationist capacity that he calls “Enactment-imagination” or E-imagination for short:

Enactment-imagination is a matter of creating or trying to create in one’s own mind a selected mental state, or at least a rough facsimile of such a state, though the faculty of the imagination. Prime examples of E-imagination include sensory forms of imagination, where one creates, through imagination, perception-like states.¹⁶

¹⁵ Currie/Ravenscroft (2002), 11.

¹⁶ Goldman (2006), 42. Other recreativists/simulationist include Gordon (1986), and implicitly Peacocke (1985) Vendler (1979), and Williamson (2008).

Despite the different labels, the recreativist and simulationist view(s) share all major commitments. So in what follows, I will refer to both equally when I speak of a recreativist view of imagination.¹⁷ There are of course, subtle differences between different versions of recreativism. These differences do not matter here; I will argue that the basic recreativist view offers us an elegant explanation for how imagination can provide us with justification, despite being up to us.

As the quotes above indicate, the core of the recreativist picture is the idea that imaginings stand in a particularly close relation to specific other types of mental states; this relation is described as one of recreation, simulation, mimicry, or being a facsimile of. So, the relevant relationship is an asymmetrical one in which imagination is in some sense derivative of or dependent on other mental states. Recreativists typically claim that some imaginings are counterparts of perceptual experiences such as visual experiences, while others are counterparts of doxastic attitudes such as beliefs, and still others are counterparts of mental states like emotions.¹⁸ Given the focus of this paper, let us restrict our attention to perceptual imaginings here.

In what sense do perceptual imaginings, and especially visual imaginings, recreate or simulate (visual) perceptual experiences? One can distinguish four aspects of the recreative nature of imaginings, from the more general ones to the more specific ones:

First, imaginings have a phenomenal character. In Zeno Vendler's words:

(T)he necessary condition for imagining performing certain actions, or being in certain conditions, is the existence of an experiential content attached to these things. It must make sense, in other words, to ask the question: what would it be like doing such a thing or being in such a state.¹⁹

There is something it is like to undergo an imagining, just as there is something it is like to undergo a perceptual or any other conscious experience.

¹⁷ This choice only reflects a mild preference for the term "recreative" in this context. To use "simulationist" would run the danger of bringing in all the baggage related to the debate between simulation theory and theory theory concerning the capacity to read other minds, which is only marginally relevant to this paper.

¹⁸ See for example Currie/Ravenscroft (2002), chapter I.3.

¹⁹ Vendler (1979), 166.

Second, as remarked above, imaginings are perspectival in the same way that perceptual experiences are, or as Peacocke puts it in his definition: “To imagine something is always at least to imagine, from the inside, being in some conscious state.”²⁰ When we imagine seeing the Cheshire Cat, we represent the Cheshire Cat from a certain viewpoint, the viewpoint of a subject who is consciously visually perceiving the Cheshire Cat. In some exercises of the imagination we put ourselves in the shoes of an existing other²¹, but in most cases the other we imagine being is a merely hypothetical subject who could have undergone the corresponding experience.

Third, imaginings inherit some phenomenology characteristic of the relevant sensory mode from mental states of that mode. Just as there are different modes of perceptual experience, there are different modes of perceptual imagining that correspond to the modes of perceptual experience. While some properties, like colors or sounds, can only be imagined in one mode, there are others, like shape, texture or distance, that can be imagined in several distinct modes. The phenomenal difference between seeing a pyramid and touching a pyramid is mirrored in the phenomenal difference between visually imagining a pyramid and haptically imagining a pyramid.

Fourth, imaginings recreate the specific phenomenal character and the representational content that the corresponding perceptual experience would have. When I imagine seeing the Cheshire Cat, I am in a mental state that recreates the phenomenal character that a perceptual experience of a Cheshire Cat would have had. Again, it is not necessary that such an experience ever actually occurs. And, when I imagine seeing the Cheshire Cat, I am in a mental state that represents properties that would also be represented by a perceptual experience of a Cheshire Cat, whether or not such an experience ever actually exists. Given that under normal circumstances we do not confuse imagining a Cheshire Cat with actually seeing a Cheshire Cat, imaginings and corresponding perceptual experiences cannot have exactly the same total phenomenal character and content. More plausibly, they share core aspects of their phenomenal character and their content. This is what Goldman has in mind when he speaks of “rough facsimiles” rather than of perfect

²⁰ Peacocke (1985), 21.

²¹ For instance, in order to try to figure out how they feel.

copies.²² So in short, an imagining takes up various aspects of the phenomenal character and the content of a corresponding actual or non-actual perceptual experience of an actual or non-actual subject.²³

There is an important caveat: If imaginings are products of an imperfect simulation process – which seems to be the case – then this process can deliver us mental states that are inaccurate to a greater or lesser degree, that fail to adequately capture the perspective of somebody actually undergoing the corresponding experience. Imagination is just as fallible as perception. What is crucial to a plausible recreativist view is that just as a perceptual experience aims at capturing the character of the external environment, imagination aims at capturing the character of possible experiences. This is not to say that imaginings represent experiences rather than the things imagined, just that their direction of fit, as it were, is towards experiences. This is what Goldman hints at when he says that when we imagine we “try to create” such states.

While they don’t explicitly endorse recreativism, philosophers like Timothy Williamson and Stephen Yablo echo the basic recreativist conception when they refer to our employment of our imaginative capacity as an “offline”-use of our perceptual capacities:

*The imagination is a standard means for running our cognitive capacities ‘offline’ in evaluating counterfactuals. (...) Thus investigation of the use of imaginary counterexamples in philosophy shows that they do not involve a special faculty of rational intuition or the illusion of such. They simply involve particular applications of general cognitive capacities (...) widely used throughout our cognitive engagement with the spatiotemporal world.*²⁴

*When you conjure up an image of *w*, you are simulating the activity of really looking at it. Simulated looking is not a distinct process, but the usual run ‘off-line’.*²⁵

²² See quote on p. 11. Obviously, much more needs to be said about this within a full account of recreative imagination.

²³ On some views of the relationship between the phenomenal character and the content of mental states, taking up the phenomenal character entails, or is entailed by, taking up the content. The features are listed here so as to preserve neutrality between different controversial views in philosophy of mind that have no direct bearing on the current question.

²⁴ Williamson (2008).

²⁵ Yablo (2002), 458.

The recreative view of imagination is phenomenologically compelling. It describes how it seems to us from the first-person-perspective when we engage in visual imagining. But there is also some empirical support for it. In a recent article, Goldman and Jordan summarize:

Cognitive science and neuroscience is replete with evidence that imagination is powerful enough to produce states that closely match their counterparts. This is most thoroughly researched in the domains of visual and motoric imagery. Neuroscientific studies confirm that visual and motor imagery has substantial neurological correspondence with vision and motor execution respectively.²⁶

And they go on to cite some examples of such results. Note that nothing I have said so far requires you to accept the recreative view of the imagination as a general picture of all kinds of imagining. You might, for example, think that propositional imagining ascriptions refer to a very different mental capacity. As many proponents explicitly admit, the recreative imagination is only one kind of imagination, albeit a very familiar and very important one.²⁷ So, my account of the epistemic value of recreative imagination is fully compatible with other accounts of the epistemic value of other cognitive capacities that we might sometimes subsume under the label imagination.

As we have seen, skepticism about a justifying role for imaginings is fueled by an emphasis on the difference between perceptual experiences, as mental states that impose themselves on us, and imaginings, as mental states that we create rather than endure. But if imaginings are *re-creative* rather than merely creative, then there is a tight relationship between imaginings and perceptual experiences after all.

And here is why this tight relationship grounds justification by imagination. Perceptual experiences serve two different epistemic roles. One of them tends to occupy center stage in epistemological enquiry: perceptual experiences provide us with evidence about which objects there are in our immediate external environment, and which properties those objects have. If Alice has a perceptual experience as of a white rabbit then she is

²⁶ Goldman/Jordan (forthcoming).

²⁷ See for example Currie/Ravenscroft (2002), ch.I.

prima facie defeasibly justified in believing that there is a white rabbit in front of her.²⁸ Let us call this kind of evidence *physical evidence*. Arguably, a necessary condition on perceptual experiences providing physical evidence is the existence of causal and/or functional links that hook up our perceptual apparatus to the external environment. The sense in which imaginings are under our voluntary control is incompatible with imaginings providing us with physical evidence.

But perceptual experiences also provide us with evidence about how things look to us, whether or not things in our external environment actually are the way they look. When Alice has a perceptual experience as of a white rabbit, she is also prima facie defeasibly justified in believing that things look white and rabbitly to her. Let us call this kind of evidence *phenomenal evidence*. The main reason perceptual experiences play this second epistemic role is that they are experiences, that is conscious mental states with a phenomenal character: there is some way things look to us when we undergo perceptual experiences, be they veridical or non-veridical.²⁹ Now, when Alice imagines seeing a white rabbit, then in important respects things look the same way to her – they seem visually the same from the first person perspective – as they would if she had a perceptual experience as of a white rabbit: white and rabbitly. The imagining state represents to her this distinctive way of looking – or at least a roughly similar way of looking – just as the perceptual state does. After all, as recreative states, this is what imaginings do by their very nature: they aim at mimicking, in the relevant phenomenal and representational respects, a perceptual state that Alice (or some other subject) could have had. So, imaginings provide phenomenal evidence just as perceptual experiences do. As Vendler succinctly puts it in his paper: “The limits of imagination are the limits of experience.”³⁰ Imaginings justify us in beliefs about ways things could look because they present us with experiences that could have been had.

There are three aspects of this proposal that deserve discussion:

²⁸ Maybe Alice needs to satisfy further requirements, such as having reliable perceptual experiences, or having a certain attitude towards her perceptual experiences. Let us focus on the normal case where any such further requirement is plausibly met.

²⁹ On an intuitive level it is fairly obvious that there is phenomenal evidence and that our perceptual experience is a source of this kind of evidence. The intuitive sense suffices for our present purposes. Unsurprisingly, however, it is difficult to establish the existence of phenomenal evidence in argument and to say precisely what it consists in and how it relates to physical evidence. For a good detailed defense of phenomenal evidence of experience, see Schellenberg (forthcoming).

³⁰ Vendler (1979), 166.

First, one should be careful not to confuse evidence for how things look with evidence for how things actually look. Given that imaginings are to a large extent under our voluntary control, they don't justify us in beliefs about which visible properties happen to be instantiated in our external proximate environment. But they do justify us in beliefs about how things could look. Or in other words, imaginings won't tell us that things look this way, only that this is a way for things to look. If Alice has a perceptual experience as of a pink rabbit, she is ordinarily justified in believing that there is a pink rabbit in front of her. In virtue of imagining (seeing) a pink rabbit, Alice obviously does not acquire justification for any beliefs about the presence of a pink rabbit. She does, however, acquire justification for believing that there is a possible visual scene comprising a pink rabbit-shaped object.³¹

Second, just as our perceptual apparatus is a flawed instrument, our capacity of imagination is not infallible. When we imagine, we aim to form facsimiles of perceptual experiences, but we do not necessarily always succeed in doing so. Imagining an Escher figure might tempt us into thinking that things could look that way, even if in fact they could not. The assumption of this paper is that our capacity of imagination does its recreative job well enough to provide evidence, but ultimately this is an empirical question – just as is the analogous question about the reliability of perception.

And third, the idea is not merely that imaginings justify us in beliefs about how things could look because their content and phenomenal character *resembles* the content and the phenomenal character of perceptual experiences. Rather, imaginings play this role in virtue of being by their very nature *derived from* or parasitic on perceptual experience, which in turn informs us about the visible properties of objects. It is because imagination is constitutively a capacity to recreate perceptual experiences – in Yablo's words, as an ability to run the perceptual faculty 'off-line' – that it can tell us how things look.

It is now easy to see how the recreative view of the imagination provides us with an explanatory solution to the Up-To-Us-Challenge. Despite its voluntary nature, imagining can provide us with justification because what we imagine is constrained by the recreative nature of imagination. Even though we can decide when we engage in imagining and

³¹ Of course, Alice would have also been justified in this second belief on the basis of her perceptual experience.

what we imagine, our imagination is far from boundless. When we imagine we simulate having a perceptual experience, and so imagination conforms to whatever structural regularities govern perception: we cannot imagine a circle that is red all over and green all over at the same time, or a triangle composed out of squares.³² It is a mistake to assume that just because our imaginings are not constrained by the accidental nature of the external environment as perceptions are, our imaginings do not thereby not track any important facts at all, such as facts about the structure of experience. And unlike the traditional modal epistemologist, the recreativist has an explanation for why imagination tracks possibilities of some sorts: It is in virtue of its constitutive relationship to our perceptual faculty, a relationship that we have good phenomenological and empirical reason to believe obtains.

4. The Reach of Imagination

Up to this point, the epistemic role given to the imagination on the recreativist picture is a very limited one: imaginings provide justification for certain kinds of beliefs about our own mental states. This gives us a good solution to the Up-To-Us Challenge, because it shows how imagination, even though it is up to us, is at least of epistemic value in providing justification for beliefs about how things could look for us. But can the recreativist picture offer any way of going significantly beyond such claims about subjective experiential possibility?

In this last section, I sketch two possible ways of doing so. The first route will lead from justification about how things could look to justification about how things must look – that is to justification about the structure of perceptual experience. The second, more speculative route will lead from justification about how things could look to justification for how things could be – that is to justification about the structure of the world.

So far, the fact that imagination is to a large extent under our voluntary control has figured in our discussion as a potential obstacle on the path to new knowledge. Because what we imagine and when we imagine it is largely up to us, it is difficult to understand how imagination could provide justification. However, there is a flip side to this

³² At least not in non-defective ways.

problematic feature of the imagination: the voluntary nature of imagination allows it to be exploited within an appropriate methodology in order to systematically investigate certain further realms of enquiry. Let me explain.

It is first useful to make a distinction between a certain cognitive capacity and a method that exploits this capacity. The cognitive capacity of perception, for instance, is a basic source of evidence. Understanding how perception works helps us to understand how we can use it to acquire justification for beliefs about the visible properties of our immediate external environment. But so far this only reveals a very limited epistemic role for perception. The full extent of its epistemic role can only be understood once we see how perception is systematically exploited in methods of observation, data collection and so on in order to secure justification for a much broader range of beliefs. A given cognitive capacity might directly provide the necessary basis for justification for beliefs of a certain kind, but the use of that capacity in one or another method of inquiry might provide justification for a much broader and more significant or interesting set of beliefs.

This is exactly the situation we find with the cognitive capacity of imagination and the methods of inquiry in which we put imagination to systematic use. And the viability of one such method – maybe the most important one – depends crucially on the fact that imaginings are under our voluntary control. We can call this method *imaginative variation*.

Imaginative variation is a method in which one forms a series of imaginings that systematically recombine elements of perceptual contents in order to test hypotheses about the structure of one's experience. For instance, we can test the hypothesis that nothing can look green all over and red all over at the same time by imaginative variation. Suppose one starts off imagining a green cube, and then begins to add or remove or change various properties of this image – the size of the object, its shape, its texture, and so on – while still imagining it as completely green. Suppose that one now tries to add the property of being red to the object in one's imagination, while holding the object's green color constant. One will quickly notice that it cannot be done. Going through this exercise thus plausibly gives one *prima facie* justification for the general belief that one's perceptual experience does not permit one to experience two colors as co-located.³³

³³ Even though one uses one's own mind as the experimental lab for this toy study, one can arguably draw on a background assumption about the similarity of the perceptual system across subjects to support the more general conclusion that this is a feature of human perceptual experience as such, and not merely an

Moreover, notice that this intuitive judgment – that one can be *prima facie* justified in this way in accepting a color exclusion principle about one’s perceptual experience – relies on the fact that when engaging in imaginative variation one is free to recreatively imagine any possible combination of the relevant properties that one chooses. In principle, one has access to all the samples relevant for testing the generalization. This is a luxury we do not typically have in empirical enquiry. When using our perceptual apparatus to test general hypotheses about features in nature, we face all sorts of practical limitations. It is sometimes hard or impossible to get access to a sufficient set of samples to inductively support a general claim, and we have to hope that the samples we do get are representative. The natural realm is vast, and we can only perceive what is in our immediate external environment. Imagination is different. Even though the realm of possible experiences is vast, their imaginative counterparts are all at our fingertips. The method of imaginative variation is fallible, of course, in part because it inherits the fallibility of our capacity of recreative imagination already noted.³⁴ However, such fallibility is fully compatible with imaginative variation providing *prima facie* justification, even justification that in many cases suffices for knowledge.

The method of imaginative variation can potentially be used to generate justification for a wide range of beliefs about the first-person accessible structural features of perceptual experience. But there might also be a way to proceed from justification concerning how things can and must look to justification concerning how things can be. Above I argued that there is no reason to believe that imagination gives us direct insight into metaphysical possibility. However, recreative imagination can perhaps give us indirect insight into metaphysical possibility. Here is a tempting line of reasoning: as we have seen, imagining P gives us *prima facie* justification for believing that P is a way things could look; but if P is a way things could look, then it could also be the case that things veridically look as if P. And if things could veridically look as if P, then things could be that way, that is, possibly P. So, if I imagine P, then I have *prima facie* justification for believing that P is possible.

idiosyncrasy of one’s own mind. Obviously, reliance on such a background assumption introduces a possibility of error, although one might still be *prima facie* justified as long as one is *prima facie* justified in accepting the background assumption.

³⁴ For example, some studies suggest that color exclusion principles might actually be wrong: in the right experimental circumstances, it might be possible to experience a single surface as having two different colors.

How persuasive is this line of reasoning? The first premise has been argued for above, and the third premise is uncontroversial; if the cube looks green to you and the way things look is veridical, then the cube is green. We should therefore focus on the second premise: If P is a way things could look, then things could veridically look as if P. How plausible is this premise? The premise says in effect that, for every *perceptual content*, there is a possible subject that has a perceptual experience with this content and that represents the world as it really is. So, the plausibility of the premise depends on which properties enter into the contents of perceptions, and which of those properties recreative imaginings aim to recreate. The classic counterexamples to the inference from imaginability to possibility involve hidden underlying natures. We can imagine water being something different than H₂O, even though water cannot possibly be something different than H₂O. But we cannot perceive water as being H₂O, and so a fortiori we cannot recreatively imagine water as being H₂O. We can, of course, entertain the possibility that water is not H₂O. But however we do this, it is not by using our capacity of recreative imagination. Thus the classic counterexamples present no problem for the second premise. Moreover, if we focus on the properties that uncontroversially enter into the contents of perceptual experience, such as colors, shapes, and distances, then it is hard to find examples of necessarily deceiving appearances. Thus for many relevant values of P, the inference from ‘P is a way things could look’ to ‘things could veridically look as if P’ is quite plausible.

If this line of reasoning succeeds, then one implication would be that the recreative conception of imagination gives us a way to explain why the inference from imaginability to metaphysical possibility is epistemically appropriate in many of the cases for which it does seem to be epistemically appropriate. This is something that the standard imagination-based modal epistemology fails to do. Moreover, it suggests that a careful reliance on our capacity of recreative imagination might provide precisely the sort of method for avoiding modal error that the standard imagination-based epistemology lacks. Obviously, this line of thought requires more development and defense. But it gives us an idea about where to look for a vindication of a fairly traditional approach to modal epistemology.³⁵

³⁵ Previous versions of this paper, or parts thereof, were presented at the Perceptual Memory and Perceptual Imagination Conference in Glasgow, the Epistemology of Philosophy Conference in Cologne and at the Philosophy Department of the University of Hamburg. I would like to thank audiences at these

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