

Knowledge through Imagination. Amy Kind and Peter Kung (Editors). Oxford: Oxford University Press, 2016, 272 pages, \$74.00 hardcover.

Reviewed by Masashi Kasaki, Kyoto University and Kengo Miyazono, Hiroshima University

Until recently, imagination has suffered an unfortunate fate in contemporary philosophy. Although it was often discussed, or at least comprised an important part of the background discussion, from the early modern to the modern period of philosophy, imagination has not received the attention it deserved in twentieth century philosophy. The wheels of fate, however, are turning again; imagination is now a hot topic in many fields of philosophy, including epistemology, philosophy of mind, philosophy of psychology, ethics, etc. This book is a welcome addition to the recent growing literature on imagination, and it comprises an excellent collection of ten essays pertinent to the epistemology of imagination.

The book begins with a detailed introduction by the editors, Amy Kind and Peter Kung. The introduction itself is a fine contribution to the field in that it sets up a puzzle concerning the use of imagination in knowledge acquisition, delineates treatments of imagination in the history of philosophy, and outlines each of the ten essays. As the introduction contains a detailed summary of the essays, we will not belabor the details of the essays in this review. Instead, we formulate the puzzle concerning the use of imagination in knowledge acquisition in our own terms, and then offer a scheme for viewing the essays in the light of their mutual relationships vis-à-vis the puzzle.

Imagination is often put to two different and even conflicting uses, namely the *transcendent use* and the *instructive use*, to use Kind and Kung's terminology. In the transcendent use of imagination, one lets imagination play freely to look beyond the actual world; whereas, in the instructive use of imagination, one employs imagination to gain relevant information for decision-making or belief-formation that is about the actual, possible, or necessary way the world is. It is mysterious how the single mental activity of imagination can be entirely free of reality but still be knowledge-producing. This is what Kind and Kung refer to as *the puzzle of imaginative use*. Each essay tries to address or at least shed a new light on this puzzle. The puzzle is also succinctly formulated as the problem of how one can gain knowledge of the world via imagination.

Most contributors to the book acknowledge that what is ordinarily called *imagination* may not be of a united kind, and that it might be the case that different cognitive faculties or mechanisms are responsible for different kinds of imagination. Hence, Part One of the

book, entitled *Taxonomical and Architectural Approaches*, collects essays that deal with how to distinguish imagination from other similar but less epistemically significant mental activities, and how imagination works in knowledge-producing ways. Part Two and Part Three are entitled *Optimistic Approaches* and *Skeptical Approaches*, respectively. They represent two opposing approaches to the puzzle of imaginative use: optimistic approaches endorse and work out the possibility of knowledge through imagination, and skeptical approaches deny or otherwise question the possibility.

The puzzle of imaginative use takes the form of an epistemological how-possible question, i.e., “How is knowledge through imagination possible?” Quassim Cassam (2007) distinguishes three levels of response to an epistemological how-possible question: level 1, the level of means, seeks to identify viable means of acquiring the relevant kind of knowledge; level 2, the obstacle-removing level, seeks to defeat epistemological or skeptical worries about coming to know by the means identified in level 1; and level 3, the level of enabling conditions, seeks to explain why it is possible to acquire the relevant kind of knowledge by the means specified in level 1. Level 3 explanations may appeal to the empirical (psychological and/or evolutionary; Cassam does not mention the latter) or non-empirical (philosophical) enabling conditions under which imagination brings knowledge via the specified means.¹ Although imagination may be identified as a means of acquiring a priori knowledge and offered as a level 1 response to the question of how a priori knowledge is possible, one can still pursue the problem of how knowledge through imagination is possible by further elaborating on what imagination is and how it works, as many essays in the book attempt to do. In addition, several essays either take a skeptical position on the possibility of knowledge through imagination or defend the possibility against such a skeptical position. For these reasons, we think that it is useful to (a) categorize the essays in terms of which level of response to the epistemological how-possible question they feature, and (b) expose what negative or positive response they offer therein. (Ichikawa [ch. 5, pp. 124–129] distinguishes how and why questions in epistemology, and Williamson [ch. 4, p. 117] seems to have a similar distinction in mind. The distinctions they draw correspond to level 1 and level 3 in Cassam’s taxonomy.)

There is an additional reason why it is worthwhile to compare the essays in this way. Kind and Kung consider what they call the *equivocation solution* to the puzzle of imaginative use and ultimately reject it as unpromising. The equivocation solution argues that the transcendent and the instructive uses of imagination actually correspond to different faculties or processes, and so it is no puzzle to hold that one of them is knowledge-producing. Kind and Kung argue against the equivocation solution that there are important connections between the two uses of imagination. That is, the power of imagination to transcend the world seems to be the very same power to provide instruction and information about how the world is (including how the world possibly or necessarily is). We agree with Kind and Kung that it is difficult and even implausible to differentiate imaginative (or quasi-imaginative) faculties in ways that precisely correspond to the transcendent and the instructive uses of imagination. But, given that the essays attribute a wide range of different uses and functions to imagination, the worry still remains that they might fail to be discussing the same faculty or process and engaging with the same puzzle. It might be the case that different versions of the puzzle of imaginative use arise for different imaginative (or quasi-imaginative) faculties or processes, and each essay winds up engaging in a different form of the puzzle. Hence, it is important to see whether the worry is pertinent to this book by elucidating what form of the puzzle is targeted in each essay.

¹Cassam formulates these three levels of challenge and response slightly differently in different places. We select and put together the formulations that best fit the purposes of this review.

Magdalena Balcerak Jackson (ch. 1) is especially keen on the question of how imagination is to be differentiated from other similar mental activities, and she attempts to distinguish imagining from supposing and conceiving in terms of their different epistemic roles. In this process, she offers a level 1 exposition of what imagination is and how it works: imagination involves taking up (or at least an attempt to take up) the phenomenal character and content of corresponding experiences. When one (perceptually) imagines a red flower, one creates a mental state that reflects what it is like to be the subject of perceptually experiencing a red flower. On this picture of imagination, what one can imagine is not entirely under one's voluntary control but constrained by what is possible for one to perceptually, emotionally, or bodily experience. Balcerak Jackson then suggests that imagination, being constrained by possible experiences, can provide *prima facie* justification for beliefs about metaphysical possibilities. This point is meant to be a solution to a level 2 skeptical worry that imagination in the transcendental use is too unconstrained to produce knowledge because anything can be imagined by will.

Peter Langland-Hassan (ch. 2) addresses the same kind of level 2 puzzle about the possibility of knowledge through imagination as Balcerak Jackson does, though he formulates it in terms of the epistemic value of imagination. The epistemic value of imagination seems to be at odds with the voluntary control a subject has over what she imagines. Unlike beliefs, the content of imagination is up to the imagining subject. But how can such a state be epistemically valuable? Langland-Hassan employs a similar strategy to Balcerak Jackson's in response to this puzzle, by denying the idea that imagination is completely under voluntary control. He offers an architectural account of imagination according to which the content of imagination is determined by three factors: (1) an intention that determines the initial stage of a sequence of imaginings; (2) some kinds of algorithms (e.g., inferential regularities) that determine the later stages of the sequence; and (3) cyclical processes of intentional interventions into the sequence. Factors (1) and (3) are intentional factors but (2) is not. The skeptical puzzle is resolved because the content of imagination is in part an outcome of the algorithms that work independently of one's intention to imagine.

Neil Van Leeuwen (ch. 3) discusses the role of imagination for agency. His main claims are, first, that there is an activation pathway from imagistic imaginings to emotions that largely overlaps the pathway from perceptual inputs to emotions, and second, that the pathway, called "I-C-E-C" (imagery-categorization-emotion-conceptualization pathway), plays three important roles for agency. It enables one to (a) be bodily prepared for actions in relation to potential events in the environment, (b) evaluate future actions by providing affective responses to future events, and (c) experience the moral emotions that are essential for moral appraisals. While Van Leeuwen's focus is on the role of imagination for agency rather than for knowledge, his account of the mechanism of imagination and its roles offers a detailed level 1 description of the processes by which one acquires some kinds of knowledge, such as knowledge of morality or knowledge of future events.

Timothy Williamson (ch. 4) offers a response to the question of how knowledge through imagination is possible at all three levels. For level 1, he treats imagination as an ability to form a counterfactual belief as to what would happen under hypothetical circumstances. It may be exercised voluntarily or involuntarily and does not necessarily include mental imagery. Imagination supplies offline input and also guides a belief in the conditional with the input as its antecedent. Imagination has important similarities with updating beliefs with online, i.e., perceptual, input. When one has perceptual input and updates one's belief in the light of it, one is driven by a conditional, and such a conditional may be the outcome of imagination. With the similarities of online and offline cognitive processes, Williamson advocates a level 2 anti-skeptical strategy about knowledge through imagination: any skepticism about the offline processes may generalize to the online processes, and so it is

in danger of denying a broad range of knowledge. He does not specify what kind of skepticism about the offline processes he has in mind, and this anti-skeptical strategy trades on the generality of the processes involving imagination as Williamson characterizes it. For level 3, he proposes that imagination alerts creatures to relevant dangers and opportunities, and thus provides evolutionary advantages for thriving in the world.

Jonathan Jenkins Ichikawa (ch. 5) argues against Williamson that modal epistemology need not give pride of place to counterfactuals, and offers an alternative account of modal epistemology centered around quotidian modals — i.e., possibility and necessity claims in ordinary language. His account provides a level 1 response to the how-possible question: one has a general ability to evaluate whether a necessity or a possibility claim holds relative to a modal base (a range of possible worlds). Different kinds of modalities are merely different in modal base, and a single capacity enables one to handle them all. On this account, philosophical knowledge about metaphysical modality does not come from a *sui generis* capacity but from the same ability to handle quotidian modals. One and the same ability underlies the evaluation of quotidian modals and metaphysical modals. Ichikawa, then, might avail himself of an anti-skeptical level 2 response that is similar to Williamson's. Ichikawa also suggests a level 3 response similar to Williamson's: the capacity with quotidian modals is evolutionally advantageous.

Amy Kind (ch. 6) responds to a level 2 challenge to the epistemic value of imagination, which is roughly the same as the challenge discussed by Langland-Hassan. The epistemic value of imagination seems to be threatened by some remarkable features of imagination, such as the intentional controllability and the insensitivity to the world. She admits that imagination does not have any epistemic value in some cases but contends that this is not always the case. She primarily aims to identify the conditions under which imagination is epistemically valuable. According to Kind, the epistemic value of imagination is determined by the degree to which two constraints are satisfied: the reality constraint (which demands that one imagine the target content in a realistic way) and the change constraint (which demands that one imagine the situation evolving in a realistic way). Kind argues that the imaginative capacity of humans does satisfy these constraints to a remarkable degree in many cases.

Jennifer Church (ch. 7) provides a unique level 1 account of how one can know about other minds. Her account has some similarities with the offline simulation account of mindreading, and its uniqueness consists in the claim that knowledge of others' mental states has a (quasi) perceptual nature. Without running an offline simulation of someone's mental states, one simply perceives the person in such a way that perception and imagination are synthesized together into a united experience. Church seems to share a level 2 worry with Spaulding (ch. 9) that imagination is the result of knowledge rather than the source of it. The imagination, if it is accurate and relevant, needs to be guided by some prior knowledge. But then, imagination itself does not seem to be the source of knowledge after all. Church deals with this worry by describing several possible ways in which imagination does make a substantive contribution to knowledge. For example, imagining the whole context of events and actions enables one to check the consistency of hypotheses about the events and actions.

Heidi Maibom (ch. 8) raises a serious level 2 worry about mindreading. The worry concerns the offline simulation account of mindreading, which is committed to the view that the knowledge of other minds presupposes knowledge of one's own mind. She presents an impressive array of empirical evidence suggesting that people often fail to forecast their own actions and thoughts in counterfactual situations. For example, one may easily imagine that one is helping an old man lying on a street in need of help even in the presence of bystanders. As a matter of fact, however, one is not very likely to do so in the actual

scenario (the bystander effect). Maibom offers a diagnosis of the problem. The apparent poor performance in forecasting one's own actions and thoughts indicates that the process of forecasting does not track *actual* actions and thoughts but rather *reasonable, right, or good* ones. In other words, the process of forecasting is not a process of predicting what one actually does but is rather a process of deciding what one should do.

The main focus of Shannon Spaulding's (ch. 9) discussion is a level 2 challenge to the role of imagination in producing knowledge of contingent facts (including knowledge of other minds). Imagination certainly enables one to represent the possibilities that cannot be represented by beliefs and other reality-oriented mental states. However, imagination itself is not useful in the process of evaluating the accuracy of represented possibilities. For example, in the case of offline simulation of other minds, one can represent in imagination the possible mental states of a person, but imagination itself is not very useful in evaluating the accuracy of represented mental states. Spaulding spells out this skeptical consequence in detail, but does not endorse it. Rather, she suggests a reciprocal dependence between knowledge and imagination, where imagination can contribute to knowledge, but only when it is supplemented with some prior knowledge, which is necessary for evaluating the accuracy of imagined possibilities.

Peter Kung (ch. 10) embraces a moderate version of skepticism, questioning the claim that thought experiments in ethics can bring about knowledge about metaphysical possibilities. Imagining can be driven by pictorial imageries and non-pictorial information. Kung argues that one can imagine any content *via* non-pictorial background information, unless one is absolutely certain of its negation. Thus, imagining with background information is not a good way to secure knowledge of metaphysical possibilities, and such knowledge, if possible, must come from imagining with pictorial imageries. Thought experiments in ethics abstract away from the messiness of the real world and force a choice between two alternatives with fixed outcomes. Information driving such a choice in abstract ethical situations is not pictorial. These features of thought experiments in ethics engender skepticism about their power to produce knowledge about metaphysical possibilities.

Each contributor offers insightful perspectives on the epistemology of imagination. Table 1 below summarizes each contributor's responses to the question of how it is possible to know by imagination at levels 1, 2, and 3.

Many contributors offer empirically informed level 1 pictures of what imagination is and how it works. Moreover, they convincingly argue that imagination underlies our everyday practice of planning, decision-making, mindreading, or philosophizing. Each contributor makes a good case for his or her respective claims, and for that very reason, it is unfortunate that the contributors do not enter into dialectical engagement with each other. On the one hand, the pictures of the mechanism of imagination that Church, Maibom, and Spaulding offer are specifically designed for the use of imagination in mindreading, and the same mechanism may not apply to other uses. On the other hand, the pictures of the mechanism of imagination others offer may be too general to pin down the relevant features of specific uses. For these reasons, it still seems to be an open question whether a single wholesale level 1 response is adequate for the puzzle of imaginative use; the puzzle might take different forms for different uses, and each form of the puzzle might be addressed individually.

As we construe the puzzle of imaginative use, it arises at levels 2 and 3 as well. Some contributors explicitly take up the level 2 challenge to the possibility of knowledge through imagination, either in the form of the general non-constraint version — what one can imagine is too unconstrained to produce knowledge — or in the form of the general prior knowledge version — imagination depends on prior knowledge and fails to generate new knowledge. Maibom and Kung propose more specific versions of skepticism about knowledge through imagination. It would be interesting to see how the anti-skeptics respond

Table 1

Responses to the Puzzle of Imaginative Use

Author and Chapter	Level 1	Level 2	Level 3
Balcerak Jackson (ch. 1)	By taking up the phenomenal character and content of corresponding experiences	Against the no-constraint version of skepticism: imagination is constrained by the phenomenology of corresponding experiences	
Langland-Hassan (ch. 2)	By the algorithmic determination of counterfactual scenarios	Against the no-constraint version of skepticism: imagination is constrained by the algorithms that partially determine the imagined content	
Van Leeuwen (ch. 3)	By affectively responding to possible actions and events		
Williamson (ch. 4)	By a general ability to form a belief as to what would happen under hypothetical circumstances	Against the general skepticism: it overgeneralizes to other kinds of knowledge	Imagination is evolutionarily advantageous
Ichikawa (ch. 5)	By a general ability to evaluate whether a necessity or a possibility claim holds relative to a modal base		Imagination is evolutionarily advantageous
Kind (ch. 6)		Against the no-constraint version of skepticism: imagination is governed by the reality constraint and the change constraint	
Church (ch. 7)	By the (quasi-) perceptual experience of people	Against the prior-knowledge version of skepticism: imagination provides new knowledge by enabling consistency checking, motivating discoveries, and triggering behavioral feedbacks	
Maibom (ch. 8)		For the skepticism about the offline simulation of other minds: ample empirical evidence suggests that people are not good at projecting themselves in counterfactual situations	
Spaulding (ch. 9)		Against the prior knowledge version of skepticism: imagination and knowledge reciprocally depend on one another	
Kung (ch. 10)	By processing pictorial imageries and non-pictorial information	For the non-constraint version of skepticism about thought experiments in ethics: beliefs about possibilities via thought experiments in ethics are generated by imagination only with non-pictorial information	

to these specific level 2 challenges. The level 3 challenge is arguably the most difficult to deal with. Only Williamson and Ichikawa discuss, albeit in passing, level 3 explanations of imagination. These points are not meant to be objections to the book but to suggest that the epistemology of imagination is a rich field and it involves a plethora of challenges and solutions. The book provides a good starting point to explore this rich field.

References

Cassam, Q. (2007). *The possibility of knowledge*. Oxford: Oxford University Press.

