

BOOK REVIEW

Amy Kind
IMAGINATION AND CREATIVE THINKING
Cambridge University Press, Element Series, 2022
ISBN 10: 1108977227
Paperback: £17.00

Ksenija Savčić¹

¹University of Rijeka, Faculty of Humanities and Social Sciences, Croatia

Amy Kind in her book “Imagination and Creative Thinking” provides a comprehensive overview of the current discussion of imagination and creativity, defending the skill-based framework for understanding both concepts. The book consists of an introduction, four chapters, and a conclusion.

In the Introduction, Kind states her intention to explore the concepts of imagination and creativity. Her aim is to clarify both concepts and their relation. Kind challenges the view of these abilities as inborn, arguing instead that they are best understood as skills that can be developed through practice.

In Chapter 2, Kind provides a concise yet comprehensive overview of the literature on imagination, defining it as a speculative mental activity. She presents three vignettes to illustrate the diverse uses of imagination: (1) two children involved in the pirate-themed pretend play, (2) a man deciding on the shade of a new wall color, and (3) a woman trying to make sense of her coworker’s disagreement. The first two vignettes represent visual imagination, while the third exemplifies emotional or experiential imagination. Kind argues that these vignettes also help distinguish between different aims of imagination, specifically between instructive and transcendent uses. Instructive uses enable the imaginer to learn about the world, whereas transcendent uses allow escape from the world as it is. Thus, the first vignette illustrates transcendent imagination, while the second and third vignettes exemplify instructive imagination.

Kind adopts the division of imagination into two broad types: propositional and sensory. Propositional imagination is best understood in comparison with belief and is contrasted with other propositional attitudes, such as desires, hopes, and intentions, through the direction of fit. Kind explains the direction of fit as follows: “For beliefs, we try to fit our mind to the world; for desires, we try to fit the world to our mind” (6). The main difference between propositional imagination and belief is belief’s orientation toward truth. The second type of imagination—sensory imagination—is understood by analogy with perception, with the primary distinction being the degree of vividness of the experience.

Kind argues that both propositional and sensory imagination share common features: will-dependence (i.e., the fact that imagining is subject to our will) and world-sensitivity (i.e., unlike perception, imagination does not track changes in the world and does not adjust to them). Thus, perception tracks changes in the world and adapts to them, while imagination doesn’t. Kind argues that both types share another common feature, mental imagery. She advocates for an imagery-based account of imagination, arguing that, despite some disagreement, this account “can be motivated in large part by contrasting imagining with other speculative activities such as supposing and conceiving” (12).

In Chapter 3, Kind discusses the concept of creativity. She notes the widespread consensus that originality (or novelty, which she treats as equivalent) and value are necessary conditions for creativity, though there is disagreement on their sufficiency. Kind provides an overview of two taxonomies of creativity, which she views as complementary rather than competing.

The first taxonomy is illustrated through three vignettes: (1) an inspiring speaker, (2) a particularly creative approach to solving a math problem, and (3) a creative chess move selected by a computer program. These vignettes represent three distinct types of creativity: person-creativity, process-creativity, and product-creativity. Kind points out that there is debate over whether one of these forms is more fundamental than the others.

The second taxonomy, presented by Margaret Boden (2004), distinguishes between psychological and historical creativity, endorsing novelty, value, and surprisingness as necessary criteria for creativity. Kind examines the value requirement, tracing its origins to Kant’s assertion that creativity must be exemplary. She acknowledges several challenges associated with this requirement, including its demanding nature, lack of clarity, and the implication that negative creations cannot be deemed creative. In response,

Kind advocates for a more nuanced approach, endorsing Livingstone's (2018) distinction between instrumental and intrinsic value. The author criticizes Boden's surprisingness requirement, arguing that the distinction between surprisingness and novelty must be clarified before this requirement can be met. She supports her skepticism with examples, such as children finding basic laws of physics surprising despite their being well-known to adults, and a scientist who, after extensive work on a project, sees the creative output as inevitable rather than surprising. Based on these examples, Kind concludes that the surprisingness requirement is not widely accepted. The chapter concludes with a discussion of intentional agency as an additional criterion for creativity. Kind argues for its acceptance on two grounds: first, describing something as creative implies an evaluative component that "might presuppose agency" (31); and second, "an agency requirement proves useful in explaining the connection between imagination and creativity" (31).

In Chapter 4, Kind examines the relationship between imagination and creativity, advancing her central claim that both concepts are best understood within a skill-based framework. She argues that although "imagination" and "creativity" are often used interchangeably (32), conflating the two would be a mistake. Kind asserts that while imagination is a mental activity, creativity is not confined to mental processes, as it is also a characteristic of persons and products. Nonetheless, she acknowledges that there is "something importantly right about the idea that creativity and imagination are tightly connected" (32) and identifies three possible relationships between them: imagination is (1) necessary; (2) sufficient; or (3) both necessary and sufficient for creativity. However, she observes that many instances of imagination do not lead to creative outcomes, and the second vignette from the previous chapter illustrates creativity without the use of imagination. Despite this, Kind argues that imagination should be regarded as a primary, and possibly the primary means of achieving creativity. She supports this claim by referencing Dustin Stokes (2014), who asserts that creativity requires cognitive manipulation—a function well-served by imagination. Kind notes that Stokes' perspective aligns with Boden's tripartite distinction of novelty, where cognitive manipulation is central. Kind concludes by suggesting that the concept of creativity can be applied broadly across the domains of science and art by utilizing the distinction between instructive and transcendent imagination, as discussed in Chapter 2. Thus, she argues that imagination typically undergirds creativity.

Kind's central claim is that both imagination and creativity are best understood within the skill-based framework, and that both can be developed and improved with adequate practice. She asserts that while

there is no universal consensus on the definition of skill in philosophy, there is an agreement about at least three features of any skilled activity: (1) it can be evaluated; (2) it is practiced intentionally; (3) it can be improved via practice—all of which apply to imagination. Based on these criteria, she concludes: “If imagination undergirds creativity, and imagination can be trained, then that gives us reason to think that creativity can be trained as well” (45).

The final chapter explores the challenges surrounding the possibility of imagination and creativity in machines. Kind examines artworks generated by machines and explores the extent to which machines can engage in imaginative and creative processes. She focuses on two examples: Cohen’s AARON and a Generative Adversarial Network (GAN) created by the Obvious Collective. Kind argues that the outputs of Cohen’s AARON could be considered product-creative, as AARON’s drawings meet the criteria of novelty and value for creativity. However, when shifting the focus from product-creativity to process-creativity and introducing requirements like surprisingness and agency, the same conclusion cannot be drawn. Even if AARON were considered an intentional agent, it does not follow that it exercises intentional agency in its drawings, as it merely follows a set of rules without a mechanism for individual judgment. Kind then discusses the case of GANs and Bellamy’s portrait, noting that GANs present a more significant challenge because they operate differently from traditional computers. GANs consist of two components—the generator and the discriminator—which engage in an evaluative process that AARON lacks. However, Kind argues that, given the substantial human involvement in creating the algorithm, selecting the type of artwork, assembling the dataset, and ultimately choosing which output to present to the public, GANs fail to meet the criteria for agency. She addresses Turing and Chen’s concept of human-centric bias, the tendency to view humans as superior to machines even when results are indistinguishable. Ultimately, Kind contends that “the question of whether a machine can be creative can be seen to reduce to the question of whether a machine can have imagination” (55). Since machines lack agency, they cannot be attributed with imagination and, consequently, cannot achieve process-creativity.

In conclusion, Kind leaves the question of a machine’s potential for creativity open. She outlines the increasing pressure brought forward by ever more impressive machine achievements to expand our understanding of imagination and creativity beyond the human context.

The book presents an eloquent and elaborate discussion of imagination and creativity, successfully providing a clear distinction between them.

However, in what follows, I will offer a critical reflection on one key aspect of Kind's argument—specifically, her skill-based framework for understanding imagination and creativity, which appears to rest on the following two conditionals:

1. "If creativity is a skill, and imagination typically undergirds it, then one might naturally expect that imagination would be a skill as well." (41)
2. "If imagination undergirds creativity, and imagination can be trained, then that gives us reason to think that creativity can be trained as well." (45)

Individually, each conditional raises concerns.

Regarding the first conditional, Kind argues that imagination and creativity "typically go together" (56), despite her argument that imagination is neither necessary nor sufficient for creativity. This raises concerns about the cogency of the assertion. She addresses the issue by noting that "the problem with these claims is not their attempt to link imagination and creativity but rather their attempt to cast the link as stronger than it in fact is" (36). Kind draws on Stokes's account to establish imagination as the most suitable candidate for the role of cognitive manipulation, as it involves "voluntarily thinking about the contents of some conceptual space in non-truth bound ways" (Stokes 2014, 171, as cited in Kind 2022, 36). However, significant aspects of Stokes's account of creativity that may not support Kind's proposal seem not to be present in her discussion.

Stokes (2014) argues that imagination is indeed central to creativity, but he maintains that his account of creativity is a minimal one, emphasizing the capacity of individuals for frequent creative thought qua novel thought. By acknowledging the mundanity of minimal creativity, Stokes effectively addresses potential criticisms related to the triviality objection. The triviality objection states that imagination may undergird a wide range of cognitive processes—such as belief formation, concept acquisition, inference, deduction, and abduction—since, according to some accounts, it is fundamental to all cognition due to its role in grasping meaning (see McGinn 2004). Stokes counters this by clarifying that his account "does not require rich imagination in its explanans" (Stokes 2014). As a result, his account does not suggest a positive correlation between imagination and creativity, where a more developed imagination would necessarily lead to an increased generation of valuable new ideas.

However, Kind asserts precisely this kind of correlation. She explores methods for training imagination, such as imaginative matching, where one

person describes an object in detail, and the other tries to visualize it accurately before comparing it to the actual image. Kind asserts that

[T]he kinds of imagination-stretching exercises just discussed seem perfectly suited toward enabling novelty, and depending on how they are structured, they could be well suited for achieving value as well. (45)

However, it remains unclear how these exercises would necessarily lead to new and valuable thoughts rather than merely fostering excessive daydreaming.

Regarding the second conditional, subchapter 4.2, “Imagination and Creativity as Skills” presents arguments supporting the claim that imagination is a skill that can be developed through practice and exposure to literature. In that part, Kind argues that imagination meets the three criteria for skill. However, despite the subchapter’s title, creativity is scarcely mentioned in this part of the text and is not evaluated against the same three criteria, but rather assumed to be a skill. This is problematic for the following reason.

The argument, as presented through the two conditionals, might appear circular. It assumes that creativity is a skill to justify the claim that imagination is also a skill. The reasoning then reverses to suggest that if imagination can be trained, so can creativity. However, the claim that imagination can be trained relies on the assertion that imagination is a skill, which, as we have seen, rests on the insufficiently justified premise that creativity is a skill. In this respect, the argument appears to beg the question.

Additionally, Stokes’s account of minimal creativity, which does not establish a positive correlation between imagination and creativity, may not fully support Kind’s argument. It is also worth noting that Stokes (2008) provides an account of what he terms “rich creativity”, explicitly stating that “agency and novelty are not sufficient for creativity” (Stokes 2008). Since he does not endorse the value requirement, he introduces a modal condition as a third criterion for creativity: “an F is creative only if F could not, relative to the cognitive profile of the agent in question, have been done or performed (by A) before the time it actually was” (Stokes 2008, 26). He revisits this modal requirement in Stokes (2014), emphasizing that “imagination plausibly plays a central role in the formation of modal beliefs” (Stokes 2014, 180). Stokes’s modal condition implies that achieving rich creativity necessitates the acquisition of new

knowledge or skills, which differs significantly from the proposal to reach it by training imagination through exercises and reading.

Lastly, addressing the triviality objection would have been a valuable addition to Kind's discussion. Without it, it remains unclear why the development of imagination would specifically enhance creativity and whether this implies that all other cognitive processes—merely in virtue of being undergirded by imagination—should also be understood within a skill-based framework.

Although I have provided some critical remarks, they are not meant as definitive judgments, but rather a starting point for the further discussion. Overall, I think the book provides a wide and insightful overview of the current discussion in philosophy of creativity. It is an engaging and eloquent read, one that I would recommend to anyone interested in philosophy of mind, aesthetics, and artificial intelligence.

References

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