

Amy Kind and Peter Kung (eds.), *Knowledge Through Imagination*, Oxford: Oxford University Press, 2016, 251 pp.

Imagination has become a fashionable topic, and its role in procuring knowledge has become a central challenge in the analytical debate on imagination (see, for instance, the 2006 issue of *Metaphilosophy* under the same title as the present collection, *Knowledge through imagination*). The present collection offers a well-organized range of interesting and challenging contributions. They are divided into three groups, the first encompassing taxonomical and architectural issues (featuring papers by M. Balcerak Jackson, P. Langland-Hassan and N. Van Leeuwen), and the second offering “optimistic approaches” (T. Williamson, J. Jenkins Ichikawa, the co-editor A. Kind herself, and J. Church). The optimism is balanced in the third part, featuring “skeptical approaches” by H. Maibom, Sh. Spaulding and by the co-editor P. Kung. I shall choose a paper or two from each group, with apologies to the rest of the authors. (For quotations, I put page number in brackets.)

Let me start with the “Introduction” by the editors. They note that “the puzzle of imaginative use concerns two distinct and seemingly incompatible uses to which imagination is often put (1). Sometimes it is an escape *from* reality, and sometimes it is “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. But how can the same mental activity that allows us to fly completely free of reality also teach us something about it?” (1). How is the “instructive use” of imagination possible? The editors optimistically hope that a closer analysis will explain the joint possibility of the two uses, in particular the instructive one, and see the key to the explanation in constraints that thinkers-imaginers put upon their activity. The constraints come in two kinds. First, they “may be architectural; that is, they may result from our cognitive psychological architecture” (22). Second, the constraints may derive from more spontaneous sources, such as limitations that we voluntarily impose upon our imaginative projects (22).

Amy Kind develops these ideas further in her paper “Imagining Under Constraints”. She offers a characterization of imagining that involves a more active effort of mind than does supposition or entertaining a proposition (148), and quotes Kendall L. Walton’s (1990) classic *Mimesis as Make-Believe: On the Foundations of the Representational Arts*, Harvard University Press, suggesting that imagining “is doing something with a proposition one has in mind” Walton, p. 20 (148). She then proposes a conception of “ideal imagination” modelled on an entertaining science fictional story in which highly developed computing machines predict things in a cold, perfectly calculated way, marching step by step, with “irresistible steps”. They obey the ‘reality constraint’ in representing things, and the “change constraint”: “when their imaginative projects do require them to imagine a change to the world as they believe it to be, they are guided by the logical consequences of that change” (151). She then mentions Tesla and Temple Grandin as human quasi-ideal imaginers. Her conclusion is optimistic: “in modeling our imagination on the ideal imagination of the machines, we are able to make epistemic progress the way they do, by steady, irresistible steps” (159).

Other authors on the optimistic side take similar steps, specifying the constraints imposed upon imagination. Peter Langland-Hassan in his rich paper “On Choosing What to Imagine,” concentrates on imaginings that are voluntarily and suitable for guiding action and inference. He lists three essential components that guarantee the guiding power, first, the availability of (top-down) intentions to start imagining, second, of lateral constraints that govern the development of the imagining, and third, the possibility of cyclical interventions by subject and her intentions, in particular during a given imaginative episode (81).

In his contribution “Knowing by Imagining” Williamson joins the optimistic crew and proposes a cognitive view of imagination, without forgetting its practical value i.e. the importance of practical matters (124); he talks about “a wide range of possible ends” and possible practical evolutionary origin of imagination. Also, in his view fiction is not central for imagination, as he pointedly remarks in the concluding sentence of his paper: “... if we try to understand the imagination while taking for granted that fiction is its central or typical business, we go as badly wrong as we would if we tried to understand arms and legs while taking for granted that dancing is their central or typical business” (131).

Among cognitive function the prominent ones are raising possibilities and assessing the truth-values of propositions (115). This requires cognitive qualities, like rational responsiveness to evidence (116) and capacity to develop adequate scenarios: the imagination develops the scenario in a reality-oriented way, by default (116). Williamson does not call them epistemic virtues, but this is how a friend of virtue epistemology would describe them. They offer reliability: “...under suitable conditions, the method constitutes a reliable way of forming a true belief as to what would happen in hypothetical circumstances” (117).

Williamson wisely stresses similarities between various exercises of imagination, using them to suggest that most sophisticated among them, like thought experiments, are nothing special and mysterious. What about science? Williamson has a fine optimistic argument in favor of the serious epistemic status of imagination in it: “One might suppose that, as science progresses, the role of the imagination will increasingly be confined to the context of discovery, and that in the context of justification it will gradually be replaced by more rigorous methods. But there is evidence to the contrary. For rigorous science relies on mathematics, and so indirectly on the axioms or first principles of mathematics. But when one examines the justifications mathematicians give of their first principles, such as axioms of set theory, one finds unashamed appeals to the imagination” (123). He also stresses that thought experiments are part and parcel of the normal functioning of imagination: “We simply reserve the term ‘thought experiment’ for the more elaborate and eye-catching members of the kind.” So much for Williamson’s cognitive view of imagination in general.

The first issue that arises for the project is the classical philosophical one: what is imagination and what is the role of image in it? How close is it to belief? The term „cognitive” seems to suggest a very high degree of closeness; what about the differences? Take imagining a golden mountain: many people will stress the image in such an imagining, but how important is it

exactly. Williamson notes that many of his examples “appear to involve an essential role for mental imagery, in some sense” (118), but he quickly adds that “... we should not over-generalize to the conclusion that all imagining involves imagery” (118). And in fact, he presents the imaginative exercise differently, more as a matter of logic and even almost exclusively as a matter of logic and possibly quite sophisticated and complicated, with the full range of tableau methods in the foreground, continuing the venerable tradition of Jaako Hintikka interpreting Kant’s notion of *Anschauung* (in his 1969, “*On Kant’s Notion of Intuition (Anschauung)*”, in T. Penelhum and J. J. MacIntosh (eds.), *The First Critique*, Wadsworth Publishing).

On the other hand, here is how in his central example he presents the way people imagine. He invites us to think of a hunter who finds his way obstructed by a mountain stream rushing between the rocks (117). The hunter “imagines himself trying to jump the stream” (119) and presumably asks himself *If I try here, what is it going to be like?* Williamson notes that “he also has to look carefully at its banks in front of him, to tailor his imaginative exercise as exactly as he can to their actual contours” (119) But this tailoring of one’s imaginative exercise to the contours perceived sounds a bit like creating a visual-kinesthetic moving picture, a video: *it will be like this*. (This is what is often called a *mental model* of the situation, and here imagistic, video-like properties might help a lot.) So, even if we accept that image-producing is not a necessary feature of imagination, it could be a centrally important one, and the not image-involving cases might be a bit marginal. In general, judgments are easy to elicit with concrete examples. With naive subjects it is the *only* way. However, Williamson stresses the importance of deductive logic and the “tendency of imagination to use something like rules of deductive logic...” (123). He notes “the role of the imagination as a standard means for evaluating conditionals and modal claims (123). This raises the important issue of the role of logic in relation to imagistic cognition. Like Peter Langland-Hassan, Williamson wants to combine the two, and it will be interesting to see what the results in his subsequent work will be. So much about the optimists.

On the skeptical side, the most direct challenge to the project of finding constraints that would rehabilitate imagination is to be found in the paper by Shannon Spaulding: “Imagination Through Knowledge”. On her view, the puzzle of how we arrive to knowledge through imagination suggests that imagination is “not sufficient for new knowledge” (222). The argument seems to be the following: if imagination is to be constrained by extra-imaginative pieces of information and by other abilities, then imagination does not bring new knowledge. But this is too severe a demand. Compare physical constraints. I commute from my home town to my working place about hundred miles distance. For the car to bring me to my work there should be a well-established and well-kept road, constraining the travel, there should be red lights helping to prevent crashes, and so on. Imagine someone arguing that therefore “car is not sufficient” for commuting, and is not doing any real work! Well, the fact that an item needs constraints to function properly does not entail that it never performs any function.

Spaulding has an auxiliary argument: “I have argued that the cognitive capacity to imagine scenarios is distinct from the cognitive capacities that

underlie our ability to judge the accuracy of our imaginings” (222) and “... there is nothing in the capacity of imagination itself that could evaluate the accuracy of the possibilities we imagine” (222). Indeed, there is nothing in the car itself that recognizes red/green light. This does not show that the car will not take me from home to work, only that car *alone* will not do the work. So much about Spaulding’s direct challenge to the instructive use of imagination.

Let me mention, however, that in her text the challenge is preceded by a rich and very provocative analysis of one particular kind of imaginational enactment, namely simulation. Her argument resembles the general one we just summarized. Her example is the following: I watch John tease Mary, and try to figure out why he is doing this. I simulate his activity, and end up concluding that John likes Mary and is trying to get her attention. Fine, but how do I choose this option rather than some other, equally plausible in itself, for instance that he is just humiliating her? I need additional information, and my simulation tells me nothing about these matters. Again, to me it looks like simulation has done the main job, like the car in our example; the fact that the main job cannot be fully accomplished by the main agency in question, tells little against it.

Heidi Maibom’s paper “Knowing Me, Knowing You: Failure to Forecast and the Empathic Imagination” joins in with bad news about people’s abilities to recognize their own characteristics and attitudes, and abilities to project items of self-knowledge onto their neighbors.

Peter Kung’s “Thought Experiments in Ethics” is not so generally pessimistic as the papers by the two preceding authors. He just warns us that typical ethical thought experiments, especially ones that are meant to produce counterexamples to crucial ethical claims, CTEs for short, are organized around sharp, binary division, offering “forced choices fixed outcomes”: would you pull the lever, and kill three people, but save five, or not? He develops his criticism in a reach and subtle way, connecting it with issues of imagistic (he calls it “pictorial”) vs. non-imagistic representations, with topics of modality and so on. He claims that “imagining CTEs gives us *no reason* to believe that forced choices with fixed outcomes are genuine possibilities” (228, italics mine). We should use more realistic scenarios in our thought-experiments.

Let me note that real life often does offer “forced choices with fixed outcomes”: “Would you marry the person you are so passionately attracted to, but whom you realize to be a very dangerous partner, or not?”, “Would you vote for Trump, for Clinton or for Saunders, or not vote at all?” So ethicists might hope to offer some answers to people facing such choices, and they might prepare themselves by going through imaginary exercises featuring them.

Let me conclude that the optimistic side might have chances to survive. And let me add the following: if we accept that imagination follows real-world (or quasi-real-world) constraints, the question arises where the representations of the constraints come from. One possible unitary answer is that thinkers have mental models of reality, and that, when they ask themselves an instruction-oriented question, the models available to them constrain their subsequent imagination. If the result is worth remembering

and taking into account, it can be integrated back into one of the models, so that in the future it will provide a relevant “lateral constraint” to some exercise of imagination. If we assume that imagination is typically imagistic, and that mental models are typically concrete and “iconic”, but that both allow for thought processes that range from more iconic-pictorial to more digital deductive ones, then we shall notice that the two media, imaginative and model-sustaining one, nicely fit together and can interact in a non-problematic way.

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Bojan Borstner and Smiljana Gartner (eds.), *Thought Experiments between Nature and Society: A Festschrift for Nenad Miščević*, Newcastle upon Tyne: Cambridge Scholars Publishing, 2017, xxxviii + 437 pp.

This volume is a festschrift dedicated to Nenad Miščević, well-known Croatian philosopher, for the occasion of his 65th birthday. During his years in philosophy, Miščević engaged almost all areas of philosophy. So, since thought experiments, according to some people, lie in the foundation of all the disciplines and subdisciplines of philosophy as an indispensable foundational reflective tool, and could be, at the same time, a philosophical problem of their own (well, everything, “everything”, “everything” can be a philosophical problem), it seemed appropriate to take them as the central theme of this celebration volume.

The book consists, beside Introduction by the editors, the personal account of Miščević by Bojan Borstner and Tadej Todorović, and the Miščević’s own account of his views on thought experiments, of 22 chapters and each chapter has Miščević’s reply. Contributors to the volume are (in order of appearance): Timothy Williamson “From Anti-Metaphysics to Metaphysics”, Howard Robinson “Intuitions and Thought Experiments”, Maja Malec and Olga Markič “Miščević on Intuitions and Thought Experiments”, Nenad Smokrović “Curiosity and the Argumentative Process”, Peter Gärdenfors “Sematic Transformations”, Danilo Šuster “Lucky Math: Anti-luck Epistemology and Necessary Truth”, Guido Melchior “Epistemic Luck and Logical Necessities: Armchair Luck Revisited”, Smiljana Gartner “Did a Particularist Kill the Thought Experiment?”, Marian David “Experimental Philosophy, Gettier-Cases and Pragmatic Projection”, Peter Simons “Concepts in a World of Particulars”, İlhan Inan “Is the Speed of Light Knowable A Priori?”, Andrej Ule “Mental Models in Scientific Work”, Ferenc Huoranszki “Natural Kinds and Conceptual Truth”, Majda Trobok “Grasping the Basic Arithmetical Concepts: the Role of Imaginative Intuitions”, Andraž Stožer and Janez Bregant “The Colour Dilemma: A Subjectivist Answer”, Matjaž Potrč “Dasain in a Vat”, Pierre Jacob “Knowing One’s Own Mind” (some real history instead of thought experiment: Balkan wars were fought 1912–1913 and Miščević was not born then, so he could not be a victim of these wars.), Friderik Klampfer “The False Promise of Thought-Experimentation