Book Review

Robert C. Koons and Timothy H. Pickavance: *Metaphysics: The Fundamentals*. John Wiley & Sons, 2015, x + 267 pp., Hardcover ISBN: 9781405195744

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It has been mentioned before now that not all discussions of fundamentals are introductions to fundamentals. Despite some claims on the back cover, *Metaphysics: The Fundamentals* nowhere performs any introductory service. In many instances, this refusal of Koons and Pickavance to illustrate the most plausible motivations for every position mentioned in the book serves an excellent purpose. Koons and Pickavance disclose uncommon and provocative insights regarding the role of Hirschian Exotic Objects in the perdurantism debate, and Powerist objections to the possibility of time travel, without swamping the reader in backstory. Also concise and readable are the book's accounts of the relationship between Presentism and Actualism, Bradley's Regress, property nominalism, and super-task paradoxes such as the Super-Urn and Grim Reaper. On the other hand, the book's dearth of introductory acumen occasions some narrative awkwardness, and limits the audience to instructors and conference attendees.

The theme of *Metaphysics: The Fundamentals* is a contest between Aristotelian Powerists and what Koons and Pickavance call the Neo-Humeists. Aristotelian Powerists "take attributions of powers to be fundamental and derive the truths of laws of nature and causal connections from them" (54). Such Powerists find allies in endurantism, A-theories of time, and property realism (227). Reversely, Neo-Humeists take the "distribution of qualities" in the universe to be metaphysically fundamental (53), a distribution that gives rise to the so-called powers possessed by particulars (48). Thus Neo-Humeists incline to resemblance nominalism, instantism, perdurantism and the B-theory of time (227). By the end of the book, no clear winner emerges, a credit to Koons and Pickavance's discipline at not propagandizing Powerism over Neo-Humeism. But not every rival of Powerism receives such generous treatment.

One rival that receives short-shrift to the detriment of the book is Quinean predicate or "Ostrich" nominalism. Koons and Pickavance betray a penchant for Ockham's razor, wielding it in almost every chapter. As such, they claim that the razor makes quick work of the bloated, "qualitative economy" entailed by Ostrich nominalism, as compared to the sparser ontology of Realism (87).

Because qualitative economy tracks the number of *kinds* of fundamental entities in a theory, Koons and Pickavance argue that Realism's tripartite inventory of universals, particulars, and instantiation relations proves more economical than the Ostrich nominalism that e. g. counts as fundamental the disparate yellows possessed by each canary in the pet store.

What should justify the book's contest between Powerism and Neo-Humeism, however, is a convincing case that Powerism and Neo-Humeism yield the most interesting, relevant, or *fundamental* of competing metaphysical views. In this task of justification, Koons and Pickavance fall short. They omit to mention any serious motivations for predicate nominalism, letting Quine sit in silence as if he merely overlooks the advantages of parsimony. Koons and Pickavance neglect the fact that Quinean regimentation of true sentences into logical expressions about particulars (and only particulars) that exist proves as heuristically sharp as Ockham's razor. The Quinean, unlike Koons and Pickavance, will point out that the One Over Many argument lacks support from first-order predicate logic, and that no method is more efficient for deriving ontological commitments from sentences about Santa Claus than Quinean regimentation (see Alyssa Ney, *Metaphysics: An Introduction*, 37–45, for a superb tutorial). Despite regimentation's status as a fundamental albeit controversial tenet of contemporary metaphysics, Koons and Pickavance do not mention regimentation, and finish their book without analyzing any predicate logic, save for a single formula on a single page (237). Such absence of formulae constitutes no flaw of a metaphysics text *per se*, but readers who discover regimentation after reading Koons and Pickavance may find their reliance on Ockham's razor disingenuous.

The sequence of topics in the book also compromises its usefulness as an introductory text. Following the first chapter, titled "What is Metaphysics?", the second and third chapters discuss "Truthmakers" and "Causation and Powers." Warning lights should flash inside the minds of seasoned readers who notice that the fourth chapter bears the title "Properties." Can any philosopher explicate causation from unsettled assumptions about properties? Koons and Pickavance indicate that the answer is no, as they repeatedly employ the term "property" before defining it in the fourth chapter (see 34, 37, 52–53, 64). They also predictably and awkwardly rely on the undefined notion of "property" to analyze Michael Tooley's nomism (51). Readers follow Koons and Pickavance into a discussion of nomism that employs terms like "force," "mass," and "acceleration" (51), without possessing any means to assess whether such predicates are real or fictional, structural or particular, or even what Koons and Pickavance believe about such terms. Neither does very much conventional terminology such as "property," "universal," or "particular" appear in the

lengthy second chapter on truthmakers. Thus novice readers can expect a toilsome journey of three chapters before any familiar terms of the art (property, universal, particular) fall into place.

While the foregoing criticisms target organizational strategy more than philosophical acuity, some dubious inferences arise also in Koons and Pickavance's arguments. One such argument concerns the possibility of completing what Koons and Pickavance call "super-tasks" (206). Super-tasks are infinite procedures that resemble Zeno's paradox – an agent's repeatedly crossing half of the remaining, spatial distance to his goal but never reaching the goal. Super-tasks appear *prima facie* possible or impossible to complete in time or space, and while the thrust of Zeno's paradox is that motion is an impossible super-task, Koons and Pickavance interpret Aristotle to deny that Zeno's paradox describes "a super-task at all" (206). According to Koons and Pickavance, Zeno's agent could have stopped walking at an infinity of different points *en route* to his goal, but he does not; Zeno's agent rather completes a single "process" in walking the finite stretch of land (207). Because Koons and Pickavance define processes as "temporally extended things that unite cause and effect into a single, undivided whole" (69), the Aristotelian Powerist avoids an impossible commitment to causing disjunctive motions through an infinity of spatial points in a finite time.

Objections to the Aristotelian "process" solution include procedures wherein the walking agent *does* halt at half-distances to his destination, and waits at each halt for exponentially decreasing durations of time. According to critics reviewed by Koons and Pickavance, this "staccato walk" version of Zeno's paradox yields a complete-able super-task, an infinity of motions and pauses that transpires in finite time (207). Koons and Pickavance deny the possibility of such staccato-walks, on grounds that "such infinitely jerky motion" has never been recorded (207). Their claim is uncontroversial, but Koons and Pickavance's analysis of alternative super-tasks proves less convincing.

One alternative that Koons and Pickavance examine is "Forrest's Super-Urn" (209), which contrasts two procedures, *A* and *B*. According to procedure *A*, "an infinite number of particles ... labeled from 1 to infinity" lie in one line inside an urn (209). An additional particle labeled 0 begins outside the urn, and is moved in and out of the urn in exponentially decreasing sub-periods of time; in the first sub-period, particle 0 is positioned alongside particle 1 inside the urn and removed; in the next sub-period, particle 0 is positioned alongside particle 2 and removed, etc. After an infinity of sub-periods, particle 0 is outside the urn (209). According to procedure *B*, on the other hand, particle 0 begins outside the urn, but is left inside the urn in particle 1's place, and particle 1 is removed; particle 1 is re-inserted to particle 2's place, and particle 2 is removed, etc.

Procedure *B* yields the result that after an infinity of sub-periods, "every particle is inside the urn" (209), a result different from that of procedure *A*.

Without defining qualitative identity, Koons and Pickavance claim that procedures *A* and *B* are "qualitatively identical" because the particles in the Super-Urn resemble "bosons or photons, in the sense that two of them can occupy exactly the same place at the same time" (209). Based on this qualitative identity, Koons and Pickavance conclude both Urn super-tasks to be impossible (210). Koons and Pickavance reason that the disparity of particle identities between any given sub-period of *A* and *B* suggests no plausible, "causal difference" that brings about the divergent end results of *A* and *B*, and so the complete-ability of procedures *A* and *B* ought to be denied (210).

This paper replies that Koons and Pickavance's claim of qualitative identity for procedures *A* and *B* is false. Procedures *A* and *B* do not share qualitative identity, because each procedure avails itself differently to formulation as a super-task. Procedure *A* represents a Zeno staccato-walk. The mail-carrier must visit every room in Hilbert's Hotel (which contains infinitely many rooms) in a finite time, and paradoxically, he does, standing outside the hotel gate when finished. But procedure *B* requires no execution of any super-task whatsoever. Procedure *B* recreates the Hilbert Hotel paradox that "Even at full capacity we have room for one more!" The point of procedure *B*, in other words, is that all the guests can relocate to a room whose number is one higher than the number of their current room, and that such relocation renders Room 1 (the lowest-numbered room) vacant. The procedure qualitatively identical to procedure *B* is the *finite* procedure that shifts every resident up one room number *at the same time*. No infinity-chasing ensues. Unlike procedure *A*'s mail delivery, the room-shift of procedure *B* becomes a super-task only by strained stipulation.

In conclusion, *Metaphysics: The Fundamentals* provides a compendium of sources and tricky examples for any researcher seeking familiarization with a range of debates. Much of the text remains inaccessible to beginners. Intermediate scholars will notice that the explanations accelerate into breathless crash-courses, efficient but exhausting. Figure 5.1, for example, diagrams 43 positions or consequences of positions that can be held about properties alone (123). Such typifies the richness but relative difficulty of this slim volume.