
Book review:
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The Unbuilt Bench: Experimental Psychology on the Verge of Science, by **David Peterson**. New York: Columbia University Press, 2025. 313pp. $35.00 paper. ISBN: 9780231217323.

Gregory Hollin

School of Sociological Studies, Politics and International Relations, University of Sheffield, UK

g.hollin@sheffield.ac.uk

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David Peterson states that he has two goals for *The Unbuilt Bench*: First, "to provide an unflinching anthropological look at research practice in psychology labs in an attempt to understand if psychologists are fundamentally engaged in a different type of practice than, say, molecular biologists" (p.249-250). Second, "to provide some conceptual tools for thinking about progress and evaluation in science" (p.250). It is perhaps easier to begin with the second of these goals, for Peterson's answer to the question of progress in science will significantly inform his understanding of the activities that occur within experimental psychology laboratories.

In answering this second question, *The Unbuilt Bench* begins empirically in a molecular biology lab which is taken as a scientific model case—functioning, progressing, and populated by researchers who are in some sense typical of all "experimentalists in natural science" (p.225). Peterson finds that these biologists spend much of their time engaging in practices that he conceptualises as 'bench building'—the "ongoing process of accumulating commonplace technical accomplishments in order to create the conditions for more robust and significant technical products" (p.15). In short, biologists buy a piece of new-technology, they develop the skills and dexterity required to put that technology to use and, as a result of this novel combination of technology and technique, new things are discovered about the world which, in turn, form the basis for subsequent discovery. This, for Peterson, is a large part of what progress in science looks like.

Which bring us to Peterson's answer to his first question: is (experimental) psychology different? As the book's title might suggest the answer is 'yes,' for bench building is largely

lacking in the social and developmental psychology labs that Peterson visits. Peterson knows that we don't need him to tell us that psychology is beset by questions of legitimacy, but he here proposes a mechanism to explain psychology's apparent failures.

Peterson suggests that bench building is absent from these psychology labs because they face "ethical and ontological constraints" (p.116) that are not found in the natural sciences. Ontologically, the concepts of interest to psychologists—"power," for instance—are not just complex, they are "abstract and multivalent" (p.118). If social psychologists don't dwell in this "swampy field" (p.122), if they don't recognise that their experiments should seek to study a power that simultaneously "occurs between nation-states and also between children on a playground" (p.118) then they are liable to produce thin data that is of little interest to anybody. This is a quite different scientific terrain to that found in molecular biology where reductionism is the name of the game. Ethically, psychology faces challenges because there are clearly things that should not and cannot be done to humans in general, and infants in particular, and these limitations restrict the range of possible scientific investigations available to the researcher. (Peterson ends the book by asking if these limitations could be overcome, but maybe psychology is actually progressive in this regard? No one in the molecular biology lab is reported as expressing even a hint of worry or concern about the violences that can reasonably be done to living beings in the name of science.)

The middle portion of the book is largely devoted to understanding how psychologists operate in the midst of those ethical and ontological restraints. Developmental psychologists, Peterson shows, respond by showing a significant amount of flexibility when it comes to experimental protocols: Parents may be expected to close their eyes for the duration of an experiment so that they do not distract their child—but data may be costly to collect and experimenters may retain data if this condition is breached; data coders who are meant to be acting independently from each other may "check in" to ensure that they code ambiguous data in the same manner. Social psychologists, by contrast, are more likely to rely on conceptual and methodological flexibility—maybe life would be easier if we just didn't call it 'power'? Maybe we should measure absolutely everything about a situation in the hope that something, anything, might change in response to experimental intervention?

Research practices like those described above are often deemed responsible for psychology's widely discussed "replication crisis," a concept which frames much of the book. (When Peterson says his goal is to see if psychology is "different" to molecular biology, we all

know it's a kind euphemism. He means worse.) The final portion of *The Unbuilt Bench* thus deals with attempts that have been made to combat psychology's problematic research practices. Peterson sits in on a journal club that unflinchingly interrogates research published in the leading journals and, frequently, finds them wanting. Those who attend this club try and enact a more rigorous approach in their own research, but the result is that they both fall out with colleagues and publish fewer and "more modest" studies (p.210)—an approach with clear consequences for the careers of early career scholars. This fact alone should give pause about the long-term prospects for this "neo-Mertonian" scepticism. Peterson, however, suggests a deeper limitation: psychology's problems are here being framed in "cultural terms" rather than arising from "the material-conditions of benchwork" (p.193). Developmental psychologists can reject all the data where parents open their eyes; they can ensure that coders are truly independent, but unless they start building benches, Peterson suggests, they will never progress in the manner of molecular biology.

In the afterword, Peterson worries that *The Unbuilt Bench* will be read as "an exposé, a salacious account of terrible research practice that should shame those involved" (p.249). Indeed, there are good reasons for this concern—it is nearly twenty years since I studied experimental psychology, and my copy of the book is still covered in notes saying things like "Double Blinding!!!" and "Correction for Multiple Procedures!!!" But it would be unfair on Peterson for this to be the only take away. For all its problems, psychology retains a significant degree of cultural authority and we thus need studies like this that seek to understand, and not simply destroy, a field that is populated by researchers every bit as ambivalent and multivalent as those they seek to study. Time will tell as to whether Peterson's concept of 'bench building' is sufficiently distinct from the widely known "epistemic systems" approach of Hans-Jörg Rheinberger to enter general circulation, but what is clear is that this is an important and much needed empirical study into the lifework of experimental psychology. May it help constitute a bench upon which others build.