

## The Experience Heuristic

A Review of *The Myth of Experience: Why We Learn the Wrong Lessons, and Ways to Correct Them* by Emre Soyer and Robin Hogarth

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“Ut est rerum omnium magister usus,” Julius Caesar declared in *De Bello Civile*. Many contemporary psychologists take a dimmer view. In *The Myth of Experience: Why We Learn the Wrong Lessons, and Ways to Correct Them*, Emre Soyer and Robin Hogarth (2020) claim that, far from being the best teacher, experience is often misleading and that its infallibility is a myth. *The Myth* is an accessible and instructive review of research on the psychology of judgment and decision making. The intended audience includes decision makers in the business world, other professionals, and interested laypeople. The book’s approach is clinical in the sense that it seeks to diagnose shortcomings in learning from experience as well as to suggest remedies. This approach is familiar from the growing number of books inspired by the paradigm of heuristics and biases (Kahneman, 2011). The doctrine, made explicit by Tversky and Kahneman (1974) in their celebrated *Science* article, is that cognition is much like vision: It orients us well in the world, while producing predictable errors under specific circumstances. These errors, according to the doctrine, can be mitigated without jeopardizing the overall workings of the system.

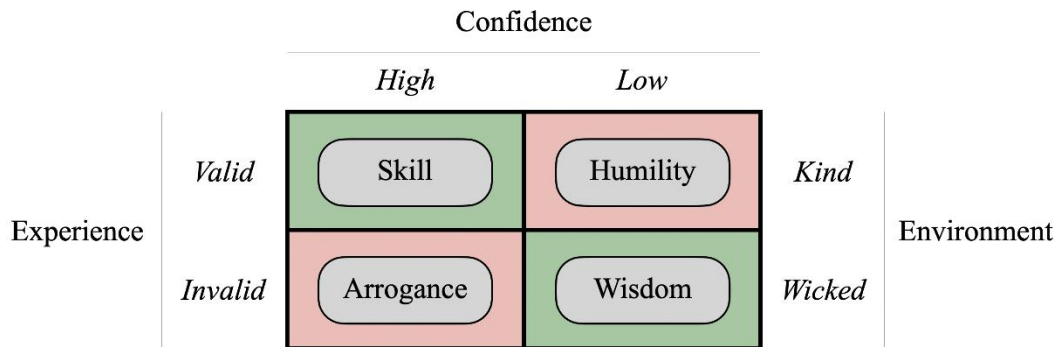
More than Kahneman, however, Robin Hogarth has been, since his early work with Hillel Einhorn, attuned to the ecological nature of rationality. The quality of decisions not only depends on the decision maker’s cognitive

capacities, but also on the quality of feedback obtained in the decision environment. *Kind environments* provide feedback that is swift, accurate, and inexpensive. *Wicked environments* do none of this (Hogarth, 2001). The value of experience increases inasmuch as wicked environments can be made kind. This is a hard task, and the authors provide little guidance as to how such environmental kindness may be achieved. Instead, they stay with the clinical approach, which is focused on the limitations of mind. The main problem, they assert, is that people treat wicked environments as if they were kind ones, and thus overestimate the value of experience when planning and executing action. This bias has long been known as the *illusion of validity* (Hogarth & Einhorn, 1978; Tversky & Kahneman, 1974).

The illusion of validity amounts to overconfidence in the value of one’s experience. Where there is overconfidence, there is underconfidence (Moore & Healy, 2008); the first being a type I error or false positive, and the second being a type II error or false negative (Heck & Krueger, 2015). We think Einhorn, whose sensitivity to crossed dichotomies is noted in the chapter on happiness, would agree. Figure 1 (next page) stylizes this crossing of dichotomies. Experience may be valid, as Soyer and Hogarth acknowledge, or it may be invalid. Confidence in experience may be high or low. When kind environments provide valid

experiences and we know it, we do well, as when mastering skills in narrow and well-defined domains of knowledge and action (Ericsson et al., 1993). When kind environments are not recognized, the result is undue humility and underconfidence (Exline et al., 2004) For example, when individuals have not practiced previously mastered skills, they may underestimate their performance upon resumption. When, however, wicked

environments undermine experience and people miss this, they are arrogant and overconfident. This one cell out of four is the focus of *The Myth*. Finally, it is possible that people recognize the wickedness of a learning environment and, in their wisdom, treat the value of their experience with appropriate skepticism (Baltes et al., 1995).



**Figure 1.** Four distinctive combinations of experience (valid vs. invalid) and confidence (high vs. low).

Much like Einhorn advised his audience to contemplate all four cells of a crossed dichotomy, Soyer and Hogarth would have done well to organize their narrative around the four intersections of mind and context. Instead, like many other books of this genre, *The Myth* remains a biased narrative focused on the biased mind. Books purporting to reveal the flawed nature of our minds sell, and healers offering lectures, workshops, and actionable interventions have a recession-proof business model.

For students of the psychology of expertise there is more food for thought. Expertise comprises accurate knowledge and the ability to succeed where others fail. The experts are those who make better predictions and decisions in kind or in wicked environments than most others do. At the same time, experts may be expected to be better calibrated in their judgments about their own expertise. Expertise is thus two-dimensional: High performance is coupled with high calibration. These two dimensions are not redundant (Krueger & Mueller, 2002; Lichtenstein & Fischhoff, 1977),

thus highlighting the need to consider both. Most intriguingly, expertise entails the wisdom of knowing the limitations of one's own experience in wicked environments while still performing discernably better than nonexperts.

Despite its focus on human arrogance, *The Myth* offers some interesting ideas. Every chapter concludes with a review of two kinds of remediable mental insufficiencies. The authors ask what is missing and what is irrelevant in the experienced information underlying judgment. This is another nod to the heuristics-and-biases paradigm. Judgments can be poor because people selectively attend to available but irrelevant or even maladaptive cues (e.g., arbitrary anchors) and fail to recruit diagnostic information that might be accessible (e.g., counterfactuals).

Soyer and Hogarth address a diverse range of experience-related judgment tasks, from creativity, to risk management, to happiness. At times their treatment is myopic. In their view, for example, creativity (and business innovation) demands an overcoming of experience. Thinking "outside the box" and

taking bold entrepreneurial action requires casting off the shackles of past experience. This claim is myopic in that it overlooks the necessity of experience. Before experience can be discarded, it must be earned (Krueger, 2015). The creativity of small children, who are unconstrained by past experience, may astound the adoring parent, but it rarely yields works of lasting value. At its finest, creativity combines years of hard work to master an art with a willingness and ability to rebel and to experiment. Having unusual and productive ideas requires a familiarity with the conventional.

Experience may be a fickle mistress, but it is not a myth. The claim that experience always works might well be a myth, but it is also a strawman. Soyer and Hogarth have given us a fine book, but they have sacrificed a strong story for a convenient one.

### Authors' Declaration

The authors declare there are no personal or financial conflicts of interest regarding the research in this article.

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Submitted: 18 August 2021

Accepted: 11 September 2021

