

# WHAT MAKES AN EXPERT PHILOSOPHER? A MINIMAL CHARACTERIZATION OF PHILOSOPHICAL EXPERTISE

Rogelio MIRANDA VILCHIS

**ABSTRACT:** In this paper, I develop a minimal empirically-based characterization of philosophical expertise, exploring its significant theoretical and practical implications for philosophy and metaphilosophy. Throughout the history of philosophy, philosophers have engaged in metaphilosophical reflections on the nature of philosophy (think, e.g., of Plato's efforts to distinguish philosophers from sophists) and the present era is no exception. The twenty-first century began with an intense metaphilosophical debate between "experimental philosophers," who deny the existence of experts in philosophy, and the advocates of the expertise defense, who insist that philosophical study and practice are essential to becoming a philosopher. However, this debate has primarily been theoretical, largely overlooking the vast empirical research regarding expertise, and currently, no solutions are in sight. A novel characterization of philosophical expertise based on this research can help us avoid misunderstandings and sterile discussions, and reevaluate the claims of both experimental philosophy and the expertise defense.

**KEYWORDS:** metaphilosophy, experimental philosophy, philosophical expertise, expertise defense, cognitive psychology of expertise, expertise

## 1. Introduction

This paper is one attempt to contribute to the delineation of the nature of philosophical expertise and, therefore, of philosophy itself. Many philosophers have dismissed this kind of reflection as superfluous, even as a distraction from the activity of philosophizing itself. Gilbert Ryle expressed this sentiment as follows: "Preoccupation with questions about methods tends to distract us from prosecuting the methods themselves. We run, as a rule, worse, not better, if we think a lot about our feet" (2009, 331). Similarly, Karl Popper (1962) remarked that "One of the reasons for the futility of the current controversy concerning the nature of philosophy" is "the naïve belief that there is an entity such as 'philosophy', or perhaps 'philosophical activity', and that it has a certain character or essence or 'nature'" (1962, 66) and that "a philosopher should philosophize: he should try to solve philosophical problems, rather than talk about philosophy" (1962, 68).

However, despite their thoughtful remarks on the perils of excessive metaphilosophical reflection, Ryle, Popper, and other philosophers demonstrate through their distinctive philosophical engagement that they nonetheless hold a view on the nature of philosophy. These philosophers engage in philosophical discussions, write papers and books, and usually teach within philosophy departments. This active engagement suggests that they hold and defend, at least implicitly, a minimal understanding of philosophy and the activity of philosophizing. Otherwise, they would not be as confident as they appear to be that they are doing philosophy, let alone carrying it out successfully. Furthermore, as in every other endeavor, the advocates and even the detractors of metaphilosophy implicitly recognize that individuals become philosophers through study and practice. They recognize that philosophers acquire expertise in philosophy through study and practice.

However, this natural assumption about philosophers' expertise faces an unprecedented challenge from "experimental philosophers". By employing empirical methods from psychology, they found that the philosophical intuitions of laypeople and even those of philosophers (Horvath 2020) vary with irrelevant factors like cultural background (Machery, Mallon, Nichols, and Stich 2004), order of presentation (Stacey, Alexander, and Weinberg 2008), and personality traits (Feltz and Cokely 2009) when judging whether a philosophical concept or theory applies in hypothetical scenarios. This intuitive variability, especially present among contemporary analytic philosophers who employ intuitions as evidence for or against philosophical theories, suggests that philosophers are not experts after all. This challenge has garnered attention from another group of philosophers (Hales 2006; Ludwig 2007; Sosa 2006; Williamson 2011) who insist that philosophers, like other experts, acquire philosophical expertise through philosophical study and practice. Both approaches, however, face a perhaps more significant challenge: their arguments are primarily a priori, despite the existence of an extensive body of research in cognitive psychology on the nature of expertise.

Cognitive psychologists have identified several general properties that *experts share across all domains* (see, for example, Boshuizen et al. 2020; Charness 1992; Gobet, Retschitzki, and de Voogt 2004). Their research suggests that, if philosophical expertise exists, it must possess the same properties. It also suggests that experimental philosophers' critiques may be missing the mark and that defenders of philosophical expertise could find a valuable ally in cognitive psychology. Taking this research seriously could provide us with a clearer understanding of its defining features, allowing us to better identify what constitutes philosophical expertise. Finally, the challenge of intuitive variability may not be as formidable as some experimental

philosophers believe. On the contrary, as we will see, it seems that experimental philosophers have been studying the wrong kind of variability.

I begin this paper by developing an empirically-informed characterization of expertise grounded on the empirical findings of cognitive psychology in section two. In section three, I broaden this characterization of expertise to include expertise in philosophy. I highlight the general properties we should look for if we want to spot philosophical expertise. In the last section, I call attention to some of the significant consequences of the present analysis for experimental philosophy, the expertise defense, and metaphilosophical research in general.

## 2. What Psychology Can Teach Us about Expertise

In this section, I introduce the current metaphilosophical debate between experimental philosophers and advocates of the expertise defense. Next, I present an overview of cognitive psychology's findings on expertise, emphasizing the universal and fundamental properties that underlie all forms of expertise. Finally, I argue that the most reasonable option is to conclude that these empirical discoveries extend to philosophical expertise.

### The Current Metaphilosophical Debate between Experimental Philosophers and the Advocates of the Expertise Defense

Metaphilosophy, the study of the nature of philosophy, does not seem to be a special area of philosophical inquiry, but it has been present throughout the entire history of philosophy; Aristotle explored the nature of philosophy and the role of philosophers in the first book of his *Metaphysics*, Descartes questioned the philosophical orthodoxies that preceded him, and Kant provided a critical assessment of metaphysics. Of course, many ancient and modern philosophers did not pause their labor to reflect on the nature and methods of philosophy, and some recent thinkers, as we noted in the introduction, have even outright denied the value of such reflections (Popper 1962; Ryle 2009). The actions of these dissenting voices indicate that they possess a concept of philosophy and believe, at least implicitly, that they are engaging in philosophical inquiry in an appropriate way. For example, Wittgenstein's (2009) critiques of philosophical methodology presuppose that philosophy is a therapeutic exercise aimed at freeing us from the traps of language. Similarly, when Rorty (1991) and other neopragmatists assert that philosophy is not about seeking truth but about fostering social consensus, they imply a specific understanding of what philosophy is and how we should engage in philosophical inquiry. Thus, engaging in metaphilosophy and adopting a metaphilosophical stance is inevitable, even if such engagement is implicit.

Metaphilosophical engagement is especially alive today. The twenty-first century is marked by lively debates regarding the nature and methodology of philosophy, notably between experimental philosophers and those who defend the existence of philosophical expertise. The first group (Machery, Mallon, Nichols, and Stich 2004; Stacey, Alexander, and Weinberg 2008, among others) has launched an incisive challenge to philosophy on the grounds of intuitive variability caused by irrelevant factors such as cultural background, order of presentation, and personality traits. Genuine experts, their argument goes, do not consistently fall prey to irrelevant factors such as personality traits and the order of presentation of the information. To this challenge, the defenders of philosophical expertise (such as Hales 2006; Ludwig 2007; Sosa 2006; Williamson 2011, 2017) put forth an analogical argument suggesting that, as in any other area of expertise, study and practice bestow superior philosophical abilities on philosophers, compared to laypeople. Experimental philosophers remarked that these biases exist even within the philosophical community (Maćkiewicz et al. 2023; Tobia 2013). In rebuttal, some philosophers like Buckwalter (2014) responded that biases are not exclusive to philosophy and Bach argued that experimental philosophers' empirical studies do "not undermine the status of philosophical expertise" (2021). This debate can have far-reaching consequences because, if experimental philosophers are right, the disciplinary integrity of philosophy could be in jeopardy. The consequences would also be quite significant if we could establish that philosophers are experts in a distinctive way. In such a case, the branches of philosophy that rely heavily on ordinary language and folk opinions would be undermined (for example, ordinary language philosophy and even experimental philosophy as currently practiced).

However, both experimental philosophers and advocates of the expertise defense still rely primarily on *a priori* assumptions about the nature of expertise. It is surprising that, despite their emphasis on empirical methods, experimental philosophers often model their fieldwork on common-sense views about intuitions and expertise—most do not define the nature of intuitive judgments by appealing to empirical evidence. Of course, Clarke (2013) and Weinberg and his colleagues (2010) "shine[d] a philosophical light on an important but neglected empirical literature" (2021, 1004).<sup>1</sup> Weinberg and colleagues (2010, 344) revised part of the literature on expertise. However, their review focused specifically on the role of feedback in the acquisition of expertise. See also Bach (2021). They did not deeply analyze the evidence on the nature and workings of, for example, intuitive judgments. For

---

<sup>1</sup> Weinberg et al. (2010), Clarke (2013), Bach (2021), and Chudnoff (2020) have made advances by delving into key psychological literature like the work of Camerer (1991), Dawes (1994) and Feltovich and Ericsson (2006).

example, although they acknowledged that the empirical evidence suggests that intuitions consist in the deployment of implicitly-believed theories, they “wanted [however] to remain maximally neutral on the questions about the necessary conditions for intuitionhood [...] we will not need to take a stance on this question in the critical discussion that follows” (2010, 344). We need to delve deeper into what the empirical evidence can tell us about philosophical expertise.

For over seventy years, cognitive psychology has provided us with robust and testable findings in the area of expertise that remain underexplored in philosophy and have the potential to shed light on the nature of philosophy and philosophical methodology.

### The Universal and Fundamental Properties of Expertise

Throughout history, we have largely taken for granted the existence of experts. Indeed, it is quite reasonable to think that human civilization would not be possible if we had not relied on the knowledge of physicians, builders, and toolmakers. Traditionally, we have identified experts through various methods, including their formal credentials, professional affiliations, and their accumulated experience. However, cognitive psychologists have long harbored skepticism towards this conventional wisdom for at least seven decades, particularly within domains like clinical psychology and forecasting in general (Meehl 1954; Tetlock 2005). This has led many cognitive psychologists to test the supposed cases of expertise in the lab (Dawes 1971; Meehl 1959; Sonnentag 1998; Shanteau 1992). Surprisingly, these investigations revealed that some individuals who were socially considered qualified experts were not experts at all.<sup>2</sup> On the contrary, the “judgments of clinicians,” for instance, “were no better than those of graduate students” (Shanteau 1992, 98). Experts in politics’ analytical skills “undergirding academic acclaim conferred no advantage in forecasting and belief-updating exercises” (Tetlock 2005, 233).

Our usual methods for spotting expertise fail. But what then characterizes expertise? What makes an expert?

Here is where we have to turn to the pioneering works on the psychology of expertise by de Groot (1965) and Simon and Chase (1973). Contrary to expectations, de Groot found that chess experts did not show signs of great intelligence or superior search capabilities (1965). The key finding was, however, that experts displayed extraordinary memory skills. While chess novices barely remembered the position of a few pieces, chess experts could remember the entire board configuration with

---

<sup>2</sup> Problems with grounding expertise in social reputation were one of the causes for current psychological research. See Ericsson (2008).

an accuracy exceeding 90% of cases. Even more intriguing was de Groot's observation that when tasked with recalling randomly arranged chess pieces, experts' memory performance matched that of novices. De Groot concluded that chess experts do not remember pieces in isolation but remember crucial configurational patterns of pieces that recur in chess games. Experts store mental representations of these patterns in their long-term memory (LTM) and can automatically retrieve them when presented with the appropriate cue. Herbert Simon and Chase (1973) built on this previous research and introduced the "chunking theory". According to this influential theory, expertise requires the highly organized storage of thousands of chunks in LTM. By retrieving and utilizing these chunks, experts can swiftly recognize patterns, make informed decisions, and execute tasks with precision in their fields.

Taking these key findings seriously enables us to propose an objective characterization of expertise as a "person's objective level of performance in a domain quantified by domain-relevant tasks" (Hambrick, Burgoyne, and Oswald 2018). More precisely, as cognitive psychologists Ericsson and Lehman succinctly put it, expertise consists of demonstrating "consistently superior performance on a specified set of representative tasks for a domain" (1996, 277).<sup>3</sup> The defining property of expertise consists of consistently demonstrating superior performance in a *representative task T* in a domain *D*. Expert performers in chess, for example, demonstrated consistently superior performance, compared to novices and laypeople, in the representative task of selecting the best chess move, given a specific chessboard configuration.

What explains their extraordinary performance? Experts achieve high levels of excellence in their domain because they possess a rich pool of chunks—structured mental representations—accurately representing their domain and each one of the steps for executing the corresponding task.

Based on these reflections, we can now propose the following characterization of expertise:

- **Expertise:** demonstration of superior performance in a representative task of a given domain.

Considering this characterization and the previous very brief sketch on the psychology of expertise, we can identify two fundamental properties of expertise:

- (E1). Experts possess a comparatively better pool of mental representational

---

<sup>3</sup> As Paul Ward et al. note, "this is one of the best approaches for studying expertise—where measurable differences in performance between those performing at different levels of proficiency are reproduced and scrutinized under standardized and controlled conditions" (2018, 11).

## What Makes an Expert Philosopher? A Minimal Characterization...

structures (chunks) of their domain—including objects, events, properties, and the tasks associated with them—in their LTM.

(E2). Experts appropriately retrieve (from their LTM) the relevant parts of their mental representational structures (chunks) to perform representative tasks at a superior level in their domain, compared to laypeople and novices.

Although when examining each discipline, we must deal with the specificities of its domain and tasks, (1) and (2) capture nonetheless the fundamental and universal properties of expertise. It is important to bear in mind that, as Ericsson (2007) points out, it is not the quantity of knowledge or chunks that a person stores in LTM that matters. What matters is that the chunks are well-organized and reflect, in the most accurate way possible, the domain (objects, events, properties, etc.) and tasks (the activities necessary to perform successfully).

One may object that this characterization of expertise—and its associated two fundamental properties (1) and (2)—is too restrictive because experts *perform* without necessarily relying on mental representations. It seems that accurate mental representations are not a necessary condition for scoring, for example, in a basketball game.

This objection mischaracterizes expertise. The body of psychological research on expertise indicates that every task relies on an individual's accurate mental representational structure for its execution. Even seemingly non-representative tasks like playing soccer, typing, or driving are grounded on correct, *though implicit*, mental representations of the task. Expert firefighters' performance depends on an implicit accurate "mental model" of the building and of the most effective ways to extinguish the fire against rapidly changing circumstances (see, Klein 2003). Chess players have developed accurate representations of the chessboard and implicitly choose the best move given a certain configuration of the pieces on the board (Gobet, Retschitzki, and de Voogt 2004). Chess novices progress to mastery through the deep analysis and emulation of the grandmasters' matches: expert chess players have developed a mental representation that guides them at each step of their performance.

Science is not the exception. Expert physicists have developed an accurate mental representation of the physical concepts, problems, and steps required to solve these problems. Such a mental model enables them to approach physics problems with precision and efficiency, demonstrating their expertise through accurate and rapid problem-solving abilities. Their ability contrasts with novices' poor performance, as experts possess superior mental representations that allow them to recognize the structure of the problem and the best methods for its resolution. Indeed, Chi and colleagues found that expert physicists categorized physics problems

according to the physicist principles necessary for their solution, whereas novices categorize them by the entities referred to in the problem statement (1981, 150).

Medical diagnosis serves as another illustrative example of expertise reliance on highly organized mental representations (Feltovich et al. 1984). Medical experts possess higher-order concepts that allow them to derive higher-level refined inferences and thus reach accurate diagnoses (Boshuizen and Schmidt 1992). Experts in X-ray diagnosis, for their part, have developed a finely tuned mental representational structure about abnormal features appearing in X-ray images indicative of health issues in various organs such as the heart and lungs (Myles-Worsley et al. 1988). They possess the remarkable ability to identify disease-indicating details in X-ray images—such as unusual findings or atypical organ locations—while simultaneously considering the patient’s clinical history and other health conditions, all within seconds (Kundel, Harold, and Nodine 1975).

Can we apply the same criteria to philosophy? Does proficiency in philosophy also entail cultivating a vast, well-structured, and accurate repository of mental representations? Some might argue that philosophy appears to be a distinctly different area of human knowledge compared to fields like firefighting or medical diagnosis. However, we currently have no compelling reason to believe that the findings of cognitive psychology discussed above do not apply to philosophy. Research on chess expertise has shed “light on chess expertise specifically and expertise in general” (Charness 1992, 6). We have every reason to think that properties (E1) and (E2) apply to all domains, including, of course, philosophy (see also Gobet, Retschitzki, and de Voogt 2004).

(E1) and (E2) are present in all manifestations of expertise. Philosophy, if it is any form of expertise at all, should also possess (E1) and (E2) and differ from other kinds of expertise solely in its domain and its corresponding tasks and mental representations. In the next section, we will see a minimal characterization of philosophical expertise along these lines.

### **3. What Is Philosophical Expertise?**

In this section, we will see how the general properties of expertise we discussed in the previous section apply to philosophy. The result is a minimal characterization of philosophical expertise. This will give us a better understanding of philosophical expertise and its properties.

The properties of philosophical expertise

I take it that the two properties delineated in the preceding section, (E1) and (E2), also characterize philosophical expertise, at least in a minimal way, and that the only



thing that sets philosophical expertise apart from other kinds of expertise lies in its subject matter. Perhaps the most difficult challenge here is to identify the subject matter of philosophy. Many will argue that this is a controversial and unresolved issue, making it difficult to even begin defining philosophical expertise. This objection is not as challenging as it seems. Let us see why.

To start, even if we cannot determine the exact subject matter of philosophy, we know that philosophical studies address *topics*, a subject matter. This being the case, expert philosophical performance, if there is any, should exhibit (E1) and (E2). Prospective experts in philosophy must cultivate a well-organized and comparatively better pool of mental representations related to the subject matter of philosophy—whatever that may be—and then engage in philosophical inquiry more effectively than most people, particularly those who are untrained and lack experience in the field. This view seems uncontroversial and should be appealing even to those who doubt that we can determine the nature and subject matter of philosophy. Let us start our examination of philosophical expertise by positing that experts in philosophy must at least exhibit the following two general properties:

(PE1). Experts in philosophy possess a comparatively better pool of mental representational structures of their domain—including objects, events, properties, and the tasks associated with them— in their LTM.

(PE2). Experts in philosophy appropriately retrieve the relevant chunks or parts of their mental representational structure to carry out representative tasks at a superior level in their domain, compared to laypeople and novices.

Some may argue that the problem is not our inability to determine the subject matter of philosophy but that it lacks a distinctive subject matter altogether because philosophy fundamentally consists of *activities* like reflection, dialogue, and developing original philosophical concepts and theories. The problem with this objection is that it overlooks the fact, as I mentioned earlier, that every type of activity, including these, is also based on mental representations. Every performer, including philosophers, depends on a well-organized and *comparatively* better representation of the task, regardless of whether it is verbalizable or implicitly resides in LTM and is later retrieved without conscious awareness. Whatever activity philosophy is, expert philosophers ground their performance on the mental representations of the task. If the task consists of thinking, dialoguing, and creating, then expert philosophers possess mental structures guiding the processes of thought, dialogue, and philosophical creation.

This should suffice to make the case that, if expert philosophers exist, philosophical expertise conforms, at the very least, with the general characterization outlined in (PE1) and (PE2). However, I aim to dig a little deeper and argue for a

minimal characterization of the subject matter of philosophy so that we can delineate a more concrete idea of what philosophers do. While I do not provide a comprehensive characterization or defense of this approach—a task demanding substantially more space—I offer several reasons supporting the view that the subject matter of philosophy is not constituted by particular objects, events, concepts, and theories but by the general and foundational structures and properties underlying those objects, events, concepts, and theories. I take it that, at least,

**(PE):** Philosophical expertise consists of demonstrating superior performance, compared to laypeople and novices, in rationally—using the tools of logic and argumentation—delineating the *likely* most general principles of reality (which includes language, concepts, etc.).

This definition is broad enough to encompass various conceptions of philosophy, whether viewed as a theory or an activity, with its subject matter including the world, language, concepts, and more. It includes those philosophers who presumably engage in just conceptual analysis (such as logical empiricists and advocates of conceptual engineering), examining ordinary language (for example, ordinary language philosophers), or try to carve reality at its joints (most philosophers across the history of philosophy). However, it also limits the scope of philosophy by noting that philosophers differ from other disciplines in that they must capture the *likely* most general foundational structures and properties of reality, which include representative subjects such as being, change, knowledge, truth, causation, mind, concepts, meaning, logical structures, and so on.

Aligning (PE1) and (PE2) with (PE), we get a more concrete version of the general properties of philosophical expertise:

**(PE1)\*** Experts in philosophy possess a comparatively better pool of mental representational structures about the likely most general principles of reality and their task of delineating those principles.

**(PE2)\*** Experts in philosophy appropriately retrieve the relevant parts of their mental representational structures to carry out at a superior level, compared to laypeople and novices, the philosophical representative task of rationally delineating—using the tools of logic and argumentation—the likely most general principles of reality.

This characterization of the subject matter of philosophy captures at least some of the fundamental properties of philosophy in the sense that (PE1)\* and (PE2)\* capture what most philosophers say and do. We will see why this is the case in the next sections. I am sure that there are many concerns about the tenability of (PE1)\* and (PE2)\*. I respond to several objections in section 4. But first let us appreciate

how (PE–PE2)\* accommodate some relevant philosophers’ self-conceptions and concrete cases of presumed expertise in philosophy.

### What Philosophers Say They Do

Wilfrid Sellars, for instance, claimed that “the goal of philosophy, abstractly formulated, is to understand how things in the broadest sense of the term hang together in the broadest possible sense of the term” (1962, 37) and Collingwood stated that philosophy “is concerned with something universal: truth as such, not this or that truth; art as such, not this or that work of art” (2005, 26).

According to Stuart Hampshire,

There are six words which taken together, mark the principal interest of philosophers, as philosophy is understood in the Greek and Western tradition. They are ‘know’, ‘true’, ‘exist’, ‘same’, ‘cause’, ‘good’. No constructive philosopher has failed to have something to say about all, or most, of these notions... [T]hey are not the concern of specific positive sciences, but, being to the highest degree general, of philosophy. (1975, 89)

Moore considered that philosophy consists of “a general description of the whole of the Universe” (1953, 1). Strawson, in turn, stated that his goal was “to lay bare the most general features of our conceptual structure” (1959, 9). More recently, Williamson emphasized the characteristic general nature of philosophy, observing that “philosophers are especially fond of abstract, general, necessary truths” (2007, 4) and that “philosophers’ questions are amongst the most general of all” (2018, 66). More broadly, he stated that,

Traditionally, philosophers have wanted to understand the nature of *everything*, *in a very general way*: existence and non-existence, possibility and necessity; the world of common sense, the world of natural science, the world of mathematics; parts and wholes, space and time, cause and effect, mind and matter. They want to understand our understanding itself: knowledge and ignorance, belief and doubt, appearance and reality, truth and falsity, thought and language, reason and emotion. They want to understand and judge what we do with that understanding: action and intention, means and ends, good and bad, right and wrong, fact and value, pleasure and pain, beauty and ugliness, life and death, and more. Philosophy is hyper-ambitious. (Williamson 2018, 3, second emphasis added)

These are just some of the countless philosophers’ metaphilosophical beliefs that align with (PE–PE2)\*. Few, if any, philosophers would doubt that one of the essential tasks of philosophical practice is to know the fundamentals of the existence of things, of knowledge, and of moral behavior.

### Some Cases of Philosophical Expertise

I suggest that (PE) is an adequate characterization of philosophical expertise because, among other virtues, it dovetails nicely with the practice of paradigmatic expert philosophers. Following the legacy of Presocratic thinkers, eminent philosophers such as Socrates, Aristotle, Kant, and Wittgenstein pursued the elucidation of the fundamental principles underpinning reality. Furthermore, the enduring relevance of their philosophical theories—evident in our ongoing efforts to strengthen them, criticize, or refute them—indicates that these philosophers excelled (demonstrated superior performance) in rationally delineating those general principles governing reality, at least *partially and indirectly*. It does not mean that their theories, concepts, and arguments do not contain falsehoods, inaccuracies, and argumentative weaknesses. However, we can argue that, for example, although the Platonic theory of knowledge as solely justified true belief is false, it delineates the nature of knowledge. Otherwise, we would be unable to explain the fact that we trust more people who hold justified true beliefs rather than people who hold justified false beliefs and unjustified true beliefs. Surely, we must also be aware that philosophers' mental representations might vary according to their area of expertise, so their degree of expertise in other areas varies accordingly. This might partially explain the significant amount of diversity, found by experimental philosophers, within philosophers' intuitive judgments about the application of concepts to hypothetical cases. This might also partially help explain why some or many professional philosophers, like presumed experts in politics (Shanteau 1992), do not develop expertise in philosophy. However, these issues deserve whole papers of their own. There are more caveats that deserve greater attention, but I cannot tackle them here. For now, let us refocus on the general analysis of philosophers' expertise in philosophical matters.

To begin with, Socrates famously reproached Athenians for attaching “little importance to the most important things and greater importance to inferior things (*Apology* 30a)”. He contended that the “most important things” are the foundational elements or principles of a good life and everything necessary for living correctly. For instance, he claimed that “wealth does not bring about excellence, but excellence makes wealth and everything else good for men, both individually and collectively” (*Apology* 30b). Unlike the inconsistency between some philosophers' explicit metaphilosophy and their metaphilosophical assumptions, Socrates' words reflect his deep metaphilosophical beliefs. Those beliefs guided his activity of questioning people about their form of living and his invitation to elucidate and pursue the most important things in life.

Aristotle was even more explicit in his support of a version of (PE) when he declared that “wisdom is knowledge about certain causes and principles [...] We suppose first, then, that the wise man knows all things, as far as possible, although he has not knowledge of each of them individually” (*Metaphysics* 981b25–982a3, 982a4–982a19). Aristotle’s commitment to these metaphysical principles is evident in his practice of philosophy. He attempted to establish the four general basic causal principles acting on every aspect of the world: the final, efficient, formal, and material causes. His concepts of SUBSTANCE, ACCIDENT, POTENCY, and ACTUALITY are as general and basic as any category can be; they virtually apply to every aspect of reality. Terms like “accidental generalizations” in reasoning and “capacities” in biology still carry much of their original Aristotelian meaning. For instance, Werner Heisenberg declares that, in quantum mechanics, “the probability wave of Bohr, Kramers, [and] Slater [...] was a quantitative version of the old concept of ‘potentia’ in Aristotelian philosophy” (1958, 41).

Kant, another eminent philosopher, agreed with ancient philosophers that philosophy deals with the general features of reality. He stated in the *Critique of Pure Reason* that philosophy is in the business of answering the questions of “What can one know?”, “What should I do?” and “What may I hope?” (A804–05/B833). He focused especially on the general features of one part of reality of the utmost importance: our faculty of reasoning. His transcendental philosophy aimed to uncover the a priori conditions that underpin our understanding of reality, shedding light on the nature of knowledge and the limits of human understanding. This philosopher defined transcendental philosophy as,

The idea of a science for which the critique of pure reason is to outline the entire plan *architectonically*, i.e., from principles, with full guarantee of the completeness and reliability of all the components that make up this edifice. Transcendental philosophy is the system of all principles of pure reason. (B27)

His philosophical activity consisted of delineating the principles structuring our faculty of reasoning and concluded that it is composed of the a priori forms of intuition, namely space and time, and the concepts of pure reason, such as SUBSTANCE and CAUSATION.

These examples might appear as meticulously chosen classical cases that effortlessly fit (PE). What about philosophers who hold unconventional views about reality and philosophy itself? I believe that those divergent philosophers ultimately adhere to (PE), despite appearances to the contrary.

For example, the later Wittgenstein is renowned for his critique of longstanding philosophical problems, asserting that they “are, of course, not empirical problems; they are solved, rather, by looking into the workings of our

language, and that in such a way as to make us recognize those workings: *in despite* of an urge to misunderstand them” (2009, 109). At first glance, his words convey the feeling that he did not attempt to delineate the general features of reality, but this impression disappears upon closer examination of his criticisms. His criticisms support (PE) because this philosopher is delineating the most general principles whereby metaphysics amounts to “misunderstanding” the workings of language and, therefore, seeing problems where none exist. Furthermore, Wittgenstein’s investigations also assume the general principle that philosophy’s job is to bring words to their original language-game meaning. The concept of a “language game” is the foundation of Wittgenstein’s philosophy, offering a framework for understanding the meaning of any linguistic expression. Terms such as “misunderstanding,” “understanding,” and “language game” reflect Wittgenstein’s efforts to *delineate the fundamental* theoretical errors he associated with “metaphysics” while also laying the groundwork for clarifying the foundations of meaning.

As a final illustration, let us return to the debate introduced at the beginning of this paper: the metaphilosophical discussion between experimental philosophers and those advocating for the existence of philosophical expertise. At the heart of their discussion lies an inquiry into the nature of the evidence supporting or undermining philosophical theory and the methodologies employed to acquire such evidence. Both parties attempt to understand the epistemic principle governing the evidence for or against philosophical theories.

Edouard Machery, for example, pessimistic conclusions lead him to believe that,

Intuition is a mirage [...] We do not know, and cannot come to know, what, e.g., personal identity is or entails, what knowledge is or entails, whether necessarily every psychological event is a physical event, whether freedom and responsibility require the capacity to have acted otherwise, and so on. This modal ignorance strikes at the heart of influential, modally immodest philosophical projects, and a significant change of course in philosophy is called for. (2017, 207)

If intuitive evidence is not an adequate source of evidence, then we must reject all philosophical theories based on intuitions. Similarly, the defenders of philosophical expertise, like Timothy Williamson, are in the business of searching for the epistemic foundations of philosophy. Williamson asserts that,

Philosophy’s reliance on intuitive thinking shows nothing special about philosophy, because all thinking relies on intuitive thinking [...] Recently, some philosophers have argued that philosophers shouldn’t rely on intuitions. Others have argued that philosophers don’t rely on intuitions. The debate rests on confusion about what ‘intuitions’ are supposed to be. (2018, 62)

Both sides of the debate are after the general epistemic foundations of philosophy, seeking answers to fundamental philosophical questions like reference (Gödel cases), right and wrong action (Trolley cases), and knowledge (Gettier cases).

In sum, besides Socrates, Aristotle, Kant, and Wittgenstein, experimental philosophers and the defenders of philosophical expertise, it is highly likely that virtually every philosopher, both past and present, as well as every philosophical school, is engaged in the quest for the most fundamental principles underlying reality. It is almost beyond doubt that, as (PE) suggests, the works of these paradigmatic thinkers and those of other prominent philosophers throughout the ages excelled, despite their disagreements, in various tasks such as theorizing, dialoguing, and writing about the overarching principles that underpin diverse aspects of reality, language, and concepts.

I believe that there are numerous additional reasons supporting this characterization of philosophical expertise. But I lack the space to argue further for this conclusion here. I also believe that there are numerous objections. Let me respond to some of them.

#### 4. Responding to Some Objections

In this final section, I address several objections to the characterization of philosophical expertise I have proposed (PE) and its associated properties (PE1)\* and (PE2)\*. I start my defense by responding to the accusations that these properties do not conform with philosophy's contextual nature and that they are too vague. In the second subsection, I tackle additional concerns regarding creativity, mental representations, and other aspects of the proposed framework.

##### The Objection from the Contextual Nature of Philosophy

Let me explain away some of the most likely concerns regarding this minimal characterization of philosophical expertise. The first thing to note is that (PE) and its conditions (PE1)\* and (PE2)\* are not only consistent with existing empirical evidence but are also inductively supported by it. Current research on expertise backs up the idea that if there is any sort of expertise in philosophy, it must fit (PE–PE2)\*. In contrast, we currently lack any empirical evidence suggesting that philosophy is a *sui generis* discipline, which by its very nature cannot conform to these principles of expertise.

I recognize that the view expressed by (PE–PE2)\* might strike us as overly narrow and simplistic. This perception arises, in part, from the fact that philosophy is widely regarded as a profoundly contextual discipline, shaped by factors such as age, culture, place, individual personality, and interests—an idea supported by the

findings of experimental philosophers. We lack clear-cut and uncontroversial philosophical claims and theories. Why is this so? One reason may be that what we take to be philosophically true or sufficiently justified depends on factors like culture, philosophers' personality, and other contextual factors, as some strands of various philosophical traditions like historicism, pragmatism, postmodernism, and even experimental philosophy have maintained. The contextualist perspective also explains the pervasive variability between philosophers' intuitive judgments and methodologies.

This is a popular view. Unfortunately, it fares significantly worse than the universalist proposal (PE–PE2)\*. Although we need to recognize that the contextualist view fits well with the empirical findings, it also introduces significant complications that the universalist view avoids. The most pressing and troubling issue is that if the truth of philosophical claims and theories depends on context, then we must accept relativism. However, relativism is a self-defeating theory, even if we restrict it to the domain of philosophy.<sup>4</sup> Believing that all philosophers' claims and theories are equally true would mean accepting contradictory propositions—such as claim *P* and theory *T* being true, while also accepting that their negations,  $\neg P$  and  $\neg T$ , are equally true. Relativism is intrinsically inconsistent.

Furthermore, the contextualist view is internally inconsistent with the very idea that philosophy is contextual and fluid because these presuppose that at least some claims are universally true: those from contextualists' context. But if philosophy is genuinely contextual, there cannot be universally true propositions. The contextualist view is also at odds with the universal theoretical pretensions of philosophers—including contextualists themselves. Most philosophers do not regard their work as merely offering contextual opinions and theories. On the contrary, they view their theories, including the theory of contextualism, as universally applicable.

On the other hand, the minimal view of philosophical expertise (PE–PE2\*) fares better than contextualism because it is consistent with the existence of some or many false and dubious philosophical beliefs. The minimal view does not imply that philosophers hold only true beliefs, nor does it imply that most of their beliefs are true or likely to be true, at least not more than the beliefs of scientists are true or likely to be true. Philosophical beliefs are fallible and open to revision.

It may be the case that the majority of beliefs of some or most philosophers are false and poorly justified. Furthermore, the minimal view leaves space for the possibility that some or most philosophers may not be experts in philosophy after all

---

<sup>4</sup> But see Hales (2006) for a recent defense.



and that philosophical expertise may be concentrated in a small subset of individuals. Determining whether this is the case, however, lies outside the scope of this analysis.

Nevertheless, it remains the case that, if there are genuine philosophers, they should possess more truths about general and fundamental principles than non-philosophers. This is possible in the sense that, even if all their acquired and produced philosophical beliefs and theories are false, they could still possess some true general methodological principles. Think about Socrates' famous assertion: "I only know that I do not know anything". Despite denying possessing any knowledge, Socrates still held as true the belief that holding inconsistent beliefs proves that we do not know what we believe we know. While this belief may seem modest, upon closer examination, it reveals itself to be a deep philosophical principle—one that, while not beyond every possible doubt, still appears as one of the best candidates among philosophical claims for being true.

Another likely true philosophical principle may be the methodological principle that getting philosophical beliefs and theories to be consistent with empirical evidence increases the likelihood that those beliefs are true. There are, after all, at least some beliefs that even contemporary skepticism about philosophical expertise recognizes. Experimental philosophers, for example, declare that "use/mention, epistemological/metaphysical, semantic/pragmatic—we certainly think that philosophical training can inculcate expert conceptual schemata structured in terms of these dimensions". (Weinberg et al. 2010, 342). The minimal view of philosophical expertise (PE–PE2\*) accommodates these difficulties.

Finally, the minimal view (PE–PE2\*) is consistent with the idea that some truths are contextual. It acknowledges that philosophical claims and theories are in constant revision and that, like science itself, it is fallible. This minimal view of philosophical expertise is compatible with the idea that there are many opposing perspectives in philosophy; there are many ways to understand a phenomenon. There are many genuine philosophical disputes. However, this is perfectly compatible with the view that either just one side's beliefs are true or that both sides harbor false beliefs on the topic. Thus, the findings of experimental philosophers on the variability of intuitive judgments between philosophers and the diversity of philosophical theories and methods pose no devastating challenge to (PE–PE2\*).

### The Objection from Vagueness

Another objection is that (PE) and (PE1)\* and (PE2)\* are too vague to be useful for capturing philosophical expertise.

Given that my proposal is minimal in that it just aims to capture the likely most general properties of philosophical expertise, it might not be as specific as one

may want. Undoubtedly, there are many cases where philosophy overlaps with other disciplines like science, engineering, art, and religion, and it is hard to distinguish what specifically philosophy is. However, this situation is common and unproblematic even in the sciences: we cannot clearly determine the borders between biology and chemistry, physics and chemistry, etc. Despite this fact, the general nature of philosophy continues to be relevant as one of its distinctive properties. As Williamson observes, biology and physics, “in their most theoretical reaches, they merge into the philosophy of biology and the philosophy of physics” and philosophers, “although they sometimes study what biologists’ and physicists’ concepts are or should be, sometimes they study what those concepts are concepts of, in an abstract and general manner (2007, 18).

While biologists are interested in how life originated on Earth, philosophers want to know the foundational properties governing life, independently of the space region, era, or specific physical substratum. While psychologists’ research focuses on memory formation, philosophers’ interest lies in memory’s role in fundamental issues like personal identity, the epistemology of testimony, and so on.

Undoubtedly, the worry extends beyond the issue of distinguishing philosophy from science. One might wonder how the coarse-grained principles (PE–PE2)\* can help us to distinguish philosophers from practitioners in other fields, pseudoscientists, and even pseudointellectuals. It is evident that most human activities involve individuals working with concrete things like metal, wood, cloth, and even living beings. They are not typically interested in the general and fundamental properties of these materials. They do not pause to consider whether there is any common stuff unifying these materials or which material is ontologically more fundamental. While philosophers look for the abstract and general, artisans, engineers, physicians, and other specialists focus on concrete stuff. Some philosophers describe themselves as engineers, but they *engineer* general concepts like BELIEF (Clark and Chalmers 1998) and TRUTH (Scharp 2013).

(PE–PE2)\* can also help us distinguish philosophers from, for instance, pseudoscientists and sophists or pseudointellectuals. Experts in philosophy, if they exist, should possess a comparatively better pool of mental representational structures about the likely most general principles of reality. More importantly, philosophers must excel at *rationally* delineating these general principles, using the tools of logic and argumentation.

The difference between philosophers and pseudoscientists is straightforward. Pseudoscientists tend to endorse theories and engage in activities that fall outside the philosophical pursuit of the fundamental and general patterns of reality. Insofar as people engaged in pseudoscience try to mimic the labor of scientists, they focus

on concrete and specific entities, laws, and structures. Moreover, they often rely on contradictory reasoning and dismiss the empirical evidence in their argumentation. Distinguishing pseudointellectuals from true philosophers may be more difficult. Pseudointellectuals may be highly sophisticated debaters, orators, and writers. However, there is a key difference: pseudointellectuals usually resort to fallacies and misuse of empirical evidence. Their use of the tools of logic, argumentation, and empirical evidence is often flawed. They are simply not experts in philosophy in the strict sense, even if they are experts in a sociological sense of having “reputational expertise” (Goldman 2001, 2021).

Of course, (PE–PE2)\* cannot fully distinguish philosophers from scientists, artists, pseudoscientists, pseudointellectuals, etc. Perhaps some philosophers even harbor some pseudoscientific beliefs and use fallacies in their argumentation. However, this phenomenon is not unique to philosophy—it occurs across various fields, from medicine to physics to art. More importantly, such complexities are entirely compatible with (PE–PE2)\*.

### Further Considerations

Some may object that (PE) fails to fully capture the nature of philosophical expertise because it places too much emphasis on mental representations and regards them as necessary conditions for philosophizing. Philosophy is fundamentally an activity, the objection goes, and philosophers do not show any signs of employing mental representations in their practice.

As already noted, like in any other kind of expertise, empirical research over the past seventy years supports the view that the representational component expressed by (PE–PE2)\* is essential for any kind of expertise (Charness 1992; Gobet, Retschitzki, and de Voogt 2004). Any other goal of philosophy besides delineating the likely most general principles of reality is based on philosophers’ mental representations of the likely most general principles of reality. Aims like explaining, boosting understanding, and clarifying the most general principles—say, of the universe, science, mind, and art—depend on the underlying mental representations of those highly general principles grounding those parts of reality. Furthermore, explaining, clarifying, and boosting understanding require mental representations, explicit or implicit, directing the realization of these activities at every stage. One must possess an adequate idea of how to clarify, explain, and boost understanding before demonstrating better performance in these activities.

One can advance the objection that insisting on the general nature of philosophical topics may not be sufficient to characterize the aspirations of, say, philosophers of music or philosophy of food (Kaplan 2012). One can argue that

trying to know the general properties of, say, food or music does not qualify one as a philosopher but rather as a musician or a cook (see Overgaard, Gilbert, and Burwood 2013, 23).

One can respond that philosophy is also about the more mundane but *general and foundational questions* of what music and food are. Indeed, philosophers do not ask about the nature of this or that instance of food or music but about what food and music are in the broadest sense, especially when we consider their relationship with the more general and fundamental domains of art, human life and death.

Another dissenter may argue that *genuine philosophers* produce *original* delineations of the principles of reality—think again of Aristotle’s four causes and Descartes’ cogito. In this sense, (PE) would be too weak a characterization of philosophical expertise.

However, a stronger characterization of (PE) would set the bar too high and exclude, for instance, almost all professional philosophers. It would limit expertise only to the reduced group of individuals who have demonstrated exceptionally original and remarkable performance delineating the likely most general principles of reality.<sup>5</sup> The weaker version of (PE) is less restrictive.

The weaker version of (PE) is more adequate for another reason: it aligns better with the gradual nature of expertise, as evidenced by our practice of comparing between degrees of performance. We can thus argue that the difference between most professional and prominent philosophers is a matter of degree, in which the second have earned a place in the history of philosophy due to their exceptional philosophical contributions demonstrating extraordinary abilities delineating the likely most general principles of reality. The weaker version of (PE) recognizes that, compared to laypeople, professional philosophers (including people who have informally studied and practiced philosophy) usually demonstrate superior performance in analyzing, criticizing, and building philosophical theories. Although most professional philosophers are not exceptional performers, they are in a position to minimally contribute to philosophy.

One could insist that the minimal view of philosophical expertise stifles philosophical creativity.

On the contrary, (PE1)\* and (PE2)\* are necessary conditions for producing novel philosophical insights. Philosophers do not philosophize in a void. We all know that it is necessary to master some fundamental concepts to join the philosophical dialogue. One cannot engage meaningfully in philosophy if one does not consider the explanations and arguments put forth by the key figures of

---

<sup>5</sup> This aligns better with the concept of GENIUS in cognitive psychology than with expertise *per se* (Simonton 2017).

philosophy in a given area. If one wants to contribute to ethics, one must engage with the classic texts on the subject. If one wants to do philosophy of language or philosophy of science, one must grapple with the works of Kripke, Kuhn, and many others. This is not mere conjecture. This fact is supported by many empirical studies across diverse fields of inquiry (see e.g., Ericsson 1999; Simonton 2017). All known fields of expertise require that individuals first acquire some degree of mastery over the fundamental principles and rules of their domain before engaging in creative work. The contextualist view, or any subjectivist perspective for that matter, cannot explain the origin of creativity in philosophy.

## 5. Conclusion

The preceding examination of philosophical expertise based on the empirical findings of cognitive psychology tells us that if there are expert philosophers, they must show superior performance, compared to laypeople and novices, in rationally delineating the likely most general principles of reality (reality that includes theories and concepts). Any discussion about expertise, philosophical or otherwise, must include the findings of cognitive psychology. Experimental philosophers' emulation of the methods of cognitive psychology is not enough; they need to consider the findings of cognitive psychologists. Defenders of philosophical expertise also need to incorporate the empirical findings that stem from the very sciences that ground their analogical argument for defending the expertise of philosophers.

Metaphilosophical research on the highly general principles governing philosophical activity is of the utmost importance for various reasons. First and foremost, if one were to know what differentiates expert philosophers from non-experts in philosophy, we would have a way to determine the reliability of judgments on various philosophical themes. Furthermore, these kinds of metaphilosophical investigations can serve as a guide for further empirical research about the nature of key elements of philosophical activity regarding intuitions, biases, and the scope of philosophical expertise. This might help to shed new light on philosophers' intuitive variability about the application of philosophical concepts to hypothetical cases, as well as the nature and impact of philosophers' biases. It can also help us to understand the place of laypeople's judgments in philosophy.

## References

- Bach, Theodore. 2021. "Why the Empirical Study of Non-Philosophical Expertise Does Not Undermine the Status of Philosophical Expertise." *Erkenntnis* 86(4): 999–1023. DOI:10.1007/s10670-019-00141-2.

- Barnes, Jonathan, ed. 1995. *Complete Works of Aristotle*. Princeton: Princeton University Press.
- Boshuizen, Henny, and Henk Schmidt. 1992. "On the Role of Biomedical Knowledge in Clinical Reasoning by Experts, Intermediates, and Novices". *Cognitive Science* 16: 153–184.
- Boshuizen, Henny P. A., Hans Gruber, and Johannes Strasser. 2020. "Knowledge Restructuring through Case Processing: The Key to Generalizing Expertise Development Theory across Domains?" *Educational Research Review* 29: 100310.
- Camerer, Colin F., and Eric J. Johnson. 1991. "The Process-Performance Paradox in Expert Judgment: How Can Experts Know So Much and Predict So Badly?" In *Towards a General Theory of Expertise: Prospects and Limits*, edited by K. Anders Ericsson and Jacqui Smith, 195–217. Cambridge: Cambridge University Press.
- Charness, Neil. 1992. "The Impact of Chess Research on Cognitive Science". *Psychological Research* 54: 4–9.
- Chi, Michelene, Paul Feltovich, and Robert Glaser. 1981. "Categorization and Representation of Physics Problems by Experts and Novices". *Cognitive Science* 5: 121–152.
- Chudnoff, Elijah. 2020. *Forming Impressions: Expertise in Perception and Intuition*. Oxford: Oxford University Press.
- Clark, Andy, and David Chalmers. 1998. "The Extended Mind". *Analysis* 58: 7–19.
- Clarke, Steve. 2013. "Intuitions as Evidence, Philosophical Expertise and the Developmental Challenge". *Philosophical Papers* 42(2): 175–207.
- Collingwood, R. G. 2005. *An Essay on Philosophical Method*. Edited by James Connelly and Giuseppina D'Oro. Oxford: Oxford University Press.
- Dawes, Robyn M. 1971. "A Case Study of Graduate Admissions: Application of Three Principles of Human Decision Making". *American Psychologist* 26: 180–188.
- de Groot, Adriaan D. 1965. *Thought and Choice in Chess*. The Hague: Mouton.
- Ericsson, K. Anders. 1999. "Creative Expertise as Superior Reproducible Performance: Innovative and Flexible Aspects of Expert Performance". *Psychological Inquiry* 10(4): 329–333.
- . 2008. "Deliberate Practice and Acquisition of Expert Performance: A General Overview". *Academic Emergency Medicine* 15(11): 988–994.
- Ericsson, K. Anders, and Andreas C. Lehmann. 1996. "Expert and Exceptional Performance: Evidence of Maximal Adaptation to Task Constraints". *Annual Review of Psychology* 47(1): 273–305.

- Ericsson, K. Anders, Michael J. Prietula, and Edward T. Cokely. 2007. "The Making of an Expert". *Harvard Business Review* 85(7/8): 114–121.
- Feltovich, Paul, Peter Johnson, John Moller, and David Swanson. 1984. "The Role and Development of Medical Knowledge in Diagnostic Expertise". In *Readings in Medical Artificial Intelligence*, edited by William Clancey and Edward Shortliffe, 275–319. Reading, MA: Addison-Wesley.
- Feltz, Adam, and Edward T. Cokely. 2009. "Do Judgments about Freedom and Responsibility Depend on Who You Are? Personality Differences in Intuitions about Compatibilism and Incompatibilism". *Consciousness and Cognition* 18: 342–350.
- Gobet, Fernand, Jean Retschitzki, and A. de Voogt. 2004. *Moves in Mind: The Psychology of Board Games*. Hove and New York: Psychology Press.
- Goldman, Alvin I. 2001. "Experts: Which Ones Should You Trust?" *Philosophy and Phenomenological Research* 63(1): 85–110.
- . 2021. "How Can You Spot the Experts? An Essay in Social Epistemology". *Royal Institute of Philosophy Supplements* 89: 85–98.
- Guyer, Paul, and Allen W. Wood, eds. 1988. *Critique of Pure Reason*. Cambridge: Cambridge University Press.
- Hales, Steven. 2006. *Relativism and the Foundations of Philosophy*. Cambridge, MA: MIT Press.
- Hambrick, David Z., Ashley P. Burgoyne, and Frederick L. Oswald. 2018. "Domain-General Models of Expertise: The Role of Cognitive Ability". In *The Oxford Handbook of Expertise*, edited by Paul Ward, Jan Maarten Schraagen, Julie Gore, and Emilie Roth. Oxford: Oxford University Press.
- Hampshire, Stuart. 1975. "A Statement about Philosophy". In *The Owl of Minerva: Philosophers on Philosophy*, edited by Charles J. Bontempo and S. Jack Odell, 89–101. New York: McGraw-Hill.
- Heisenberg, Werner. 1958. *Physics and Philosophy: The Revolution in Modern Science*. New York: Harper & Brothers.
- Horvath, Joel M. 2020. "Intuitive Expertise and Irrelevant Options". In *Oxford Studies in Experimental Philosophy*, vol. 3, edited by Tania Lombrozo, Joshua Knobe, and Shaun Nichols, 275–310. Oxford: Oxford University Press.
- Kant, Immanuel. 1998. *Critique of Pure Reason*. Edited and translated by Paul Guyer and Allen W. Wood. Cambridge: Cambridge University Press.
- Klein, G. A. 2003. *Sources of Power: How People Make Decisions*. Cambridge, MA: MIT Press.
- Kaplan, David M., ed. 2012. *The Philosophy of Food*. Vol. 39. Berkeley: University of California Press.

- Kundel, Harold L., and Calvin F. Nodine. 1975. "Interpreting Chest Radiographs without Visual Search". *Radiology* 116(3): 527–532.
- Ludwig, Kirk. 2007. "The Epistemology of Thought Experiments: First Person versus Third Person Approaches". *Midwest Studies in Philosophy* 31(1): 128–159. <https://doi.org/10.1111/j.1475-4975.2007.00160.x>.
- Machery, Edouard. 2017. *Philosophy within Its Proper Bounds*. Oxford: Oxford University Press.
- Machery, Edouard, Ron Mallon, Shaun Nichols, and Stephen Stich. 2004. "Semantics, Cross-Cultural Style". *Cognition* 94(3): 1–12.
- Maćkiewicz, Błażej, Kamil Kuś, and Włodzimierz M. Hensel. 2023. "The Influence of Philosophical Training on the Evaluation of Philosophical Cases: A Controlled Longitudinal Study". *Synthese* 202(4): 113.
- Meehl, Paul E. 1954. *Clinical versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence*. Minneapolis: University of Minnesota Press.
- . 1959. "A Comparison of Clinicians with Five Statistical Methods of Identifying Psychotic MMPI Profiles". *Journal of Counseling Psychology* 6: 102–109.
- Moore, G. E. 1953. *Some Main Problems of Philosophy*. London: George Allen & Unwin.
- Myles-Worsley, Marianne, William A. Johnston, and Michael A. Simons. 1988. "The Influence of Expertise on X-Ray Image Processing". *Journal of Experimental Psychology: Learning, Memory, and Cognition* 14(3): 553–560.
- Overgaard, Søren, Paul Gilbert, and Stephen Burwood. 2013. *An Introduction to Metaphilosophy*. Cambridge: Cambridge University Press.
- Plato. 1997. *Plato: Complete Works*. Edited by John M. Cooper and D. S. Hutchinson. Indianapolis/Cambridge: Hackett Publishing.
- Popper, Karl. 1962. *Conjectures and Refutations: The Growth of Scientific Knowledge*. New York and London: Routledge.
- Rorty, Richard. 1991. *Objectivity, Relativism, and Truth: Philosophical Papers*. Vol. 1. Cambridge: Cambridge University Press.
- Ryle, Gilbert. 2009. *Collected Papers, Volume 1: Critical Essays*. London: Routledge.
- Scharp, Kevin. 2013. *Replacing Truth*. Oxford: Oxford University Press.
- Sellars, Wilfrid. 1962. "Philosophy and the Scientific Image of Man". In *Frontiers of Science and Philosophy*, edited by Robert G. Colodny, 35–78. Pittsburgh, PA: University of Pittsburgh Press.
- Shanteau, James. 1992. "Why Study Expert Decision Making? Some Historical Perspectives and Comments". *Organizational Behavior and Human Decision Processes* 53(2): 95–106.



- Simon, Herbert A., and William G. Chase. 1973. "Skill in Chess". *American Scientist* 61: 394–403.
- Simonton, Dean Keith. 2017. "Creativity and Expertise: Creators Are Not Equivalent to Domain-Specific Experts". In *The Science of Expertise*, edited by David Z. Hambrick, Giovanni Campitelli, and Brooke N. Macnamara, 328–346. New York: Routledge.
- Sonnentag, Sabine. 1998. "Expertise in Professional Software Design: A Process Study". *Journal of Applied Psychology* 83(5): 703–715.
- Sosa, Ernest. 2006. "Experimental Philosophy and Philosophical Intuition". *Philosophical Studies* 132: 99–107. <https://doi.org/10.1007/s11098-006-9050-3>.
- Stacey, Sarah, Joshua Alexander, and Jonathan M. Weinberg. 2008. "The Instability of Philosophical Intuitions: Running Hot and Cold on Truetemp". *Philosophy and Phenomenological Research* 76(1): 138–155. <https://doi.org/10.1111/j.1933-1592.2007.00118.x>.
- Strawson, P. F. 1959. *Individuals: An Essay in Descriptive Metaphysics*. London: Methuen.
- Tetlock, Philip E. 2005. *Expert Political Judgment: How Good Is It? How Can We Know?* Princeton, NJ: Princeton University Press.
- Tobia, Kevin, Wesley Buckwalter, and Stephen Stich. 2013. "Moral Intuitions: Are Philosophers Experts?" *Philosophical Psychology* 26(5): 629–638. <https://doi.org/10.1080/09515089.2012.696327>.
- Ward, Paul, Jan Maarten Schraagen, Julie Gore, and Emilie M. Roth. 2018. "An Introduction to the Handbook, Communities of Practice, and Definitions of Expertise". In *The Oxford Handbook of Expertise*, edited by Paul Ward, Jan Maarten Schraagen, Julie Gore, and Emilie M. Roth, 1–30. Oxford: Oxford University Press.
- Weinberg, Jonathan M. 2010. "Are Philosophers Expert Intuiters?" *Philosophical Psychology* 23(3): 331–355. <https://doi.org/10.1080/09515089.2010.490944>.
- Williamson, Timothy. 2011. "Philosophical Expertise and the Burden of Proof". *Metaphilosophy* 42(3): 215–229. <https://doi.org/10.1111/j.1467-9973.2011.01685.x>.
- . 2017. "Model-Building in Philosophy". In *Philosophy's Future: The Problem of Philosophical Progress*, edited by Russell Blackford and Damien Broderick, 159–172. Malden, MA: Wiley-Blackwell.
- . 2018. *Doing Philosophy: From Common Curiosity to Logical Reasoning*. Oxford: Oxford University Press.

Rogelio Miranda Vilchis

Wittgenstein, Ludwig. 2009. *Philosophical Investigations*. 4th ed. Edited and translated by Peter Hacker and Joachim Schulte. Oxford: Wiley-Blackwell.