

Proposal for Routledge Handbook on Skill and Expertise

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Introduction

Although the notions of skill and expertise have always figured prominently in a variety of philosophical discussions, the last couple of decades have seen an explosion of direct interest in skill and expertise. Crucially, debates about know-how and virtue epistemology have fueled interest in the notion of skill and practical expertise in areas such as epistemology, ethics, and action theory. Moreover, philosophers of cognitive science as well as neuroscientists have become increasingly interested in issues concerning the nature of embodied expertise, motor skill, motor representation, and bodily control. As a result, across a variety of subfields from ancient philosophy, philosophy of mind, cognitive science, philosophy of perception, epistemology, action theory, ethics, political and social philosophy, and aesthetics, the debate on skill and expertise is growing and thriving. Despite being a central topic in philosophy in its own right, and with its many connections to other topics, at present there is no comprehensive repository presenting the central positions in the debate about skill and expertise. This is a considerable obstacle to students and faculty alike. In our handbook, we aim to systematize the existing discussions, and to set the stage for the future debates on the nature of skill, know how, and expertise.

Let us start by summarizing the relevance of skill and expertise in debates in ancient philosophy, epistemology, action theory, cognitive science, and moral/social cognition.

Skill in ancient philosophy

The topic of *techne* (skill) in Plato and Aristotle has received renewed attention both in relation to the notion of virtue and in the interpretation of Plato and Aristotle's theory of knowledge. Although both Plato and Aristotle took *techne* to be a kind of knowledge, there is significant controversy about their conceptions regarding the nature of this kind of knowledge and its relation to experience (*empeiria*) on one hand and scientific knowledge (*episteme*) on the other. With the work of Julia Annas (1995, 2001, 2011), the topic of skill in Aristotle has been connected to the relation between skill and virtue in the *Nicomachean Ethics* and also to Aristotle's action theory. Importantly, there remain interesting questions about the relation between having a skill and being able to give an account of the skill (Moss (forthcoming)), about the relationship between skill and habit, and about the relationship between skill and experience (Coope (2007)).

Skill in epistemology

Several epistemologists are interested on the relation between skill and knowledge, both in relation to the debate on whether knowledge is a kind of skillful performance and in relation to the intellectualist/anti-intellectualism debate on know how and skill.

According to virtue epistemology, skill and know how comes before knowledge: knowledge is to be understood as a kind of skillful performance (Zagzebski (1996); Sosa,

¹ Authors are listed in alphabetical order.

(2007, 2015); Greco (2010); Pritchard (2012); Dickie (2012); Turri (2015)). Intellectualists resist this reduction: for them, knowledge is prior in the order of explanation (Stanley (2011); Pavese (2016a, 2016b)).

The intellectualism/anti-intellectualist debate on skill and know how has given rise to a variety of different positions concerning the nature of skill and its relation to knowledge. Some have argued that neither skill nor know how can be thought in terms of propositional attitudes, whether of belief or of knowledge (Noë (2005); Glick (2011); Setiya (2008, 2011)). Others have questioned whether skill and know how have the same epistemic profile of knowledge (Cath (2011, 2015); Carter & Pritchard (forthcoming); Poston (2009)), on the grounds that know how and skill seems to be compatible with luck. In response, some observe that the role played by know how and skill in a robust explanation of success may actually require that know how and skill, just like knowledge, are incompatible with luck (Pavese (2017b)). Other questions that are being discussed in the current debate are whether intellectualism about skill and intellectualism about know how stand or fall together and whether knowledge is itself a practical kind of state that cannot be understood independently of its relation to action (Stanley (2011); Fridland (2012, 2013); Stalnaker (2012); Pavese (2016a, 2016b)).

The interest in skill in epistemology, however, goes beyond this debate between intellectualists and anti-intellectualists and expands to social epistemology. The notions of skill and expertise are central to today's discussion also in the debate in social and political epistemology about what counts as an expert and what kind of skill we should expect an expert to have (Goldman (2001); Buchanan (2004, 2009); Guerrero (2007, 2016)).

Skill in the philosophy of action

The notions of skill and know how figure prominently in the philosophy of action. For Anscombe (1957), intentional action requires practical knowledge, or non-inferential knowledge, in action. The interpretation of the role of practical knowledge and skill in Anscombe's theory of action has fueled an interesting debate on the nature of non-inferential knowledge (Schwenkler (2011); Thompson (2011)). Even recent theories of intentional action assign a central role to skill and know how often taken as primitive (Setiya (2008, 2011); Mele & Moser (2008)). For example, Setiya (2008, 2011) proposes that basic intentional action requires knowledge how to perform it and on these bases, argues that know how must consist in an unanalyzable ability to intentionally perform an action. Others have argued that such ability should be understood in terms of a propositional attitude (Pavese (2015a); Valaris (forthcoming)), on the model of prominent theories of intentional actions such as Goldman (1970) and Bratman (1999). Because of the centrality of skill in an account of intentional action, it is currently an interesting open question how an account of intentional action varies with the varying of our conceptions of skill and know how.

Skill in philosophy of mind and philosophy of cognitive science

The concept of implicit or procedural knowledge has been central to the cognitive sciences and has often been equated with know how and contrasted with discursive, explicit knowledge. Recently, philosophers of mind and of cognitive scientists have become increasingly interested in understanding skills with a particular focus on motor

skill and embodied expertise. Some (Stanley & Krakauer (2013)) have argued that motor skill depends on knowledge of facts, forwarding a challenge to the standard interpretation of amnesiac cases, such as HM, that have led to the familiar dichotomy between procedural and declarative knowledge in psychology. Others emphasize the importance of motor representations for motor skills (Butterfill & Sinigaglia (2014); Levy (forthcoming); Fridland (2014), (2015), (forthcoming)) stressing, in this way, their automatic but intelligent components. Interesting questions are emerging about the role of conscious attention and personal-level thought in skilled behavior (Papineau (2013); Brownstein & Michaelson (2015); Fridland (forthcoming); Wu (2011a), (2013)); about how skill can be acquired and refined (Fridland (2014)); how intentions and bodily components combine into skillful behavior (Pacherie & Mylopoulos (2016); Shepherd (2015)); and about how to think of the content of motor representation and, more generally, of practical representation (Pavese (2015b), (2017a)).

Finally, the functional role of skill and expertise crosses disciplinary boundaries and enters into psychological theories of embodied cognition (Williamson & Sutton (2014); Colling, Thompson & Sutton (2014); Christensen, Sutton, & McIlwain (forthcoming)); into theories of the role of cooperation and communication in mindreading (Michael (2011); Michael, Christensen & Overgaard (2014)); into anthropologist theories of tool use (Apel (2008); Bamforth & Finlay (2008); Read (2006); Stout (2002)); into theories of joint action (Tsai, Knoblich, & Sebanz (2011); Tsai, Sebanz, & Knoblich (2011)) as well as of human and non-human animal communication (Moore (2013); Moore (2015)).

Skill and Expertise in ethics

Virtue ethicists have often appealed to skill in order to articulate the nature of moral cognition and judgment. That is, morality, for the virtue ethicist, amounts to a kind of expertise. There remain crucial questions about whether moral judgment and behavior is best construed as a kind of skill (Annas (1995, 2001)) and whether wisdom can be construed as a sort of moral expertise (Driver (2013, forthcoming)), about what kind of thing such a skill could be, whether morality might require skill even if morality itself is not a skill, and, importantly, how the practical demands of morality may require the development of moral perception and perceptual skills. Related issues of implicit bias and stereotype threat arise in connection to these considerations, since it remains an open question whether we can change our automatic, immediate biases through training or the development of virtue (Gendler (2011); Saul (2013)).

Intended Audience

The intended audience for this companion is wide. We want it to be of use to many undergraduates and postgraduates in philosophy. It will be a commonly used teaching aid because it makes up for the fact that the current literature provides no useful, accessible introduction to or anthology of these diverse yet connected issues.

Authors of entries will be encouraged to break new ground by providing critical discussions as well as overviews, thus making the companion of interest to philosophy graduate students and faculty working on these topics. For instance, it will be very helpful to students taking graduate seminars outside of their area of specialization, and

useful for teachers of such classes to make sure everyone has a common understanding of particular theories or issues on the topic of skill and expertise.

We want our handbook to play both a *consolidating* and a *guiding* role. Because the literature on skill has until now been largely fragmented into individual discussions, there are a number of different kinds of work on skills that have not been brought together. As editors, we will ensure that authors working on connected topics present their ideas in a comprehensive way and thus that students get an up-to-date, accurate, and broad conception of the topics, questions, and problems in the study of skill and expertise.

Approach

In the philosophical literature, a few monographs on skill, know how, and expertise have come out in the last few years, such as Stanley's *Know How* (2011) — defending intellectualism about know how and the role of knowledge in skillful action — and Montero's *Thought in Action* (2016) — challenging the myth of “just do it” according to which skillful performance is thoughtless and unreflective. These and other monographs are sustained defenses of certain distinctive theses on the nature of skillful action. As such, they do not really aim at providing an exhaustive representation of the variety of positions that have been taken on the topic in the literature. Nor do they aim at discussing in any depth the topic of skill in relation to many other connected topics (e.g., in ethics, in the history of philosophy, in social epistemology, and so on). By contrast, our handbook aims at providing an exhaustive representation both of the different positions on the nature of skill and skillful action and also of the relevance of these discussions for a variety of other philosophical topics.

Some anthologies on the topic of know how have been published. For example, Bengson & Moffett *Knowing how* (2011) include several important articles on the topic of know how. However, these anthologies have thus far focused mostly on know how rather than skill. So they contain little discussion of the more general topic of skill and of its interdisciplinary importance. Finally, to our knowledge no anthology published on the topic of know how has thus far had the coverage that our handbook aims to have. For example, the existing ones contain little or no discussion of the topic of skill in the Eastern tradition or of the topic of skill in cognitive science (motor skill, control, embodied cognition, etc.), social cognition, social epistemology, and so on.

The only existing comprehensive collection on the topic of skill and expertise to our knowledge is, to our knowledge, a psychology collection, *The Cambridge Handbook of Expertise and Expert Performance* (2006). Let us give the opportunity to compare this handbook with our project. Some differences have to do with the approach to the topic of expertise: while our handbook will focus more on questions concerning the nature of skill and expertise in a variety of domains, Cambridge Handbook emphasizes a discussion on the methodology to be adopted by psychological theories of skill and expertise. Other differences are also important and make our handbook potentially interesting for psychologists too. Our handbook will feature a more substantial discussion of the history of the thought on skill and expertise, with chapters on the topic by prominent historians of philosophy. Further, the Cambridge Handbook features no discussion of moral expertise, moral psychology, or social expertise, whereas our Handbook will contain one entire section just on that topic. Finally, while Cambridge

Handbook only devotes one chapter to motor expertise (chapter 29, “Perceptual-motor expertise”), we plan to have several chapters covering the topic of motor skill and motor representation, looking at cutting-edge empirical research in neuroscience and cognitive psychology. Because of this, we think our handbook could be of interest to psychologists and neuroscientists too.

Our plan is to have approximately 40 chapters, divided into 5 main sections. Chapters should run about 5,000/7000 words. Ideally, chapters will forward new ideas that promise to advance the field but will remain accessible to a non-expert philosophical audience. We would also encourage authors to identify open questions or speculate about future directions of research.

In addition, to ensure the highest quality of publication, we kindly ask each contributor to be available to peer-review one of the other chapters in the volume. The editors, of course, will review each contribution as well.

The timeline for submissions is:

1 April 2017: authors deliver short outline of their entries to the editor.

1 September 2017: authors deliver first drafts of their contributions to the editor. Contributions are peer-reviewed by editors and at least another expert. Authors are then advised if any revision is required.

1 January 2018: authors deliver final drafts to editor.

The provisional plan of the handbook is as follows:

Section I (Skill in the History of Philosophy) will contain discussion of skill and expertise in the history of philosophy, both western and eastern. This will include ancient philosophy discussion of skill (Plato and Aristotle), Medieval conceptions of skill (Aquinas), modern discussion on the notion, at least one chapter on the eastern conception of skill, especially in Buddhism, and one on skill within the continental tradition (Heidegger, Foucault).

Section II (Skill in epistemology) will cover the discussion of skill in epistemology and its relation to knowledge. This will encompass discussions of skill in virtue epistemology, as well as the recent debate between intellectualism and anti-intellectualism about know how and skill, on the relative priority of skill and knowledge, and on the role of skill and expertise in social epistemology.

Section III (Skill, Action, and Control) will deal with discussions of skill in action theory and theory of control. This will include chapters on the relationship between skill and intentional action, the role of control, attention and focus in skillful action, and the connection between acting skillfully and being able to answer questions about one’s own skillful action.

Section IV (Skill in the Cognitive Sciences) will be about discussions of skill in the philosophy of cognitive sciences. This will include one or more chapters on motor skill and motor representation, one on skill in childhood development, another on tool use and non-human animal cognition, one or more on joint action, one on embodied cognition, at least one on cognitive and perceptual skills such as perception/emotion/understanding/wisdom/imagination, and a final one on communication, social skill, and social cognition.

Section V (Skill in ethics) will be about moral skill, virtue, and moral expertise.

Content

Here below is the subdivision into chapters as well as an indicative list of the authors that we are planning to invite (anticipating that some of the invitees may not be available to contribute, we took the liberty of listing more than 40 contributors (~50):

1) Skill and Expertise in History of Philosophy (East and West)

- Jessica Moss (New York University) on Plato.
- Ursula Coope (Oxford) on Aristotle.
- Mellissa Merrit (University of South Wales) on modern philosophy.
- Michael Kremer (University of Chicago) on Ryle.
- Jay Garfield (Smith College) on the Eastern tradition on skills.
- Matt McKenzie (Colorado State University) on the Eastern tradition on Skills.
- Dan Zahavi (University of Copenhagen) on the Eastern tradition on Skills.
- Sean Kelly (Harvard University) on the continental tradition (Heidegger).

2) Skill in Epistemology

- Jason Stanley (Yale University) on the relation between skill and knowledge.
- Carlotta Pavese (Duke University) on the relation between skill and knowledge.
- Ernie Sosa (Rutgers University) on virtue epistemology.
- Duncan Pritchard (University of Edinburgh), on virtue epistemology.
- Stephen Hetherington (University of South Wales), on knowledge as a skill.
- Imogen Dickie (Toronto University) on skill before knowledge.
- Yuri Cath (La Trobe University) on the epistemology of skill and know how.
- Alex Guerrero (Rutgers University) on political epistemology.

3) Skill, Agency, and Control

- Josh Shepherd (Oxford University) on intentional action and control.
- Myrto Mylopolous (University of Ottawa) on agentive awareness.
- David Papineau (Kings' college London) on consciousness in action.
- Wayne Wu (Carnegie Mellon University) on agentive control.
- Lisa Miracchi (Penn University) on agency and competences.

- Peter Railton (Michigan University) on skill and agency.

4) Skill and Expertise in the Cognitive Sciences

a. Motor Skill

- Ellen Fridland (KCL) on motor skill
- John Krakauer (Johns Hopkins University) on motor skill
- Neil Levy (Oxford University) on motor representation.
- Barbara Montero (CUNY the Graduate center) on focus and attention.
- Steven Butterfill (University of Warwick) and Corrado Singaglia (University of Milan) on motor representation.

b. Cognitive and perceptual skills perception/emotion/ understanding/imagination

- Dorothea Debus (University of York) on memory/imagination
- Neil von Leeuwen (Georgia State University) on imagination.
- Paulina Silwa (Cambridge University) on understanding.
- Jesse Prinz (Cuny Graduate center) on perceptual skill.
- Alva Noe (Berkely University) on perceptual skill.
- Susanna Seigel (Harvard University) on perception.

c. Embodied Cognition

- John Sutton (Macquarie University) on embodied cognition.
- Wayne Christensen (Macquarie University) on embodied cognition.

6) Skill and Expertise in Ethics, Politics, and Social Cognition

a. Skill and Moral Cognition/Expertise

- Matt Stichter (Washington state university) on virtue as a skill.
- Paul Bloomfield (University of Connecticut) on virtue and skillful thought
- Julia Driver (Washington University) on moral expertise.
- Julias Annas (University of Arizona) on the relation between virtue and skill.
- Walter Sinnott Armstrong (Duke University) on moral cognition and expertise.

b. Skill and Implicit Bias

- Michael Brownstein (John Jay College of Criminal Justice, CUNY) on skill and implicit social cognition.
- Tamar Gendler (Yale University) on implicit biases.
- Sophie Stammers (University of Birmingham) on changing our implicit biases.
- Keota Fields (University of Massachusetts, Dartmouth) on changing one's own perception and automatic associations.

c. Skill and Social Cognition

- Richard Moore (Berlin School of Mind and Brain) on communication and demonstration in human and non-human animals.

- John Michael (University of Warwick) on commitment to joint action and social skill.
- Maria Brinker (University of Massachusetts, Boston) on the role of the body in social cognition.
- Sean Gallagher (University of Memphis) on directly knowing other minds and joint embodied action.
- Natalie Sebanz (CEU) on coordination and joint skillful action.
- Tyler Carmen (Columbia University/Barnard College) on social skills.

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