

Skill and Knowledge

International Conference

Daily Schedule

Tuesday 15 February 2022

9.00am – 9.20am	Registration
9.20am – 9.30am	Opening words: Senior Prof Sue Bennett , Executive Dean, Faculty of Arts, Social Sciences and Humanities
9:30am -10:30am	Prof Barbara Gail Montero via Zoom (Professor of Philosophy, City University of New York) <i>An Orthogonal Model of Attention and Control in Expert Action</i>
10:30am – 11:00am	Refreshments
11.00am – 12.00pm	Prof Shaun Gallagher via Zoom (Lillian and Morrie Moss Professor of Excellence, University of Memphis; Professorial Fellow, University of Wollongong) <i>Dances and Affor/dances: Skilled Performance in the Arts</i>
12.00pm – 1.00pm	Lunch
1.00pm – 2.00pm	Dr Catherine Legg (Senior Lecturer, Deakin University) <i>A Representationalist Rethinking of Teleosemiotics: Part II</i>
2.00pm – 3.00pm	Ian Robertson and Senior Prof Daniel D. Hutto (PhD Candidate, University of Wollongong and Senior Professor of Philosophical Psychology, University of Wollongong) <i>Against Intellectualism about Skill</i>
3.00pm – 3.30pm	Refreshments

3.30pm – 4.30pm **Dr. Markos Valaris**
(Associate Professor, University of New South Wales)

Knowledge and the Shape of Skilled Action

4.30pm – 5.30pm **Prof Stephen Hetherington**
(Emeritus Professor of Philosophy, University of New South Wales)

Knowledge-Practicalism and the Republic's Powers Argument

Wednesday 16 February 2022

9.00am – 10.30am **Prof Timothy Williamson** via Zoom
(Wykeham Professor of Logic, University of Oxford)

Acting on Knowledge-How

10.30am – 11.00am Refreshments

11.00am – 12.00pm **Dr Massimiliano Cappuccio**
(Senior Lecturer, University of New South Wales and Research Fellow, University of Wollongong)

Dreyfus is Right: Knowledge-That cannot Make You an Expert

12.00pm – 1.00pm Lunch

1.00pm – 2.00pm **Dr Kelsey Perrykkad**
(Postdoctoral Research Fellow, Cognition and Philosophy Lab, Monash University)

Skilled Selves

2.00pm – 3.00pm **Prof Greg Downey**
(Professor of Anthropology, Macquarie University)

Learning to Hear Space: The Behavioural-Developmental Spiral of Human Echolocation

3.00pm – 3.30pm

Refreshments

3.30pm – 4.30pm

Dr Glenda Satne

(Senior Lecturer, University of Wollongong)

Knowing and Doing

4:30pm - 5:30pm

Prof Karyn Lai

(Professor of Philosophy, University of New South
Wales)

*Performance, Habitual Actions, and Agency in the
Zhuangzi*

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Abstracts

Barbara Gail Montero (Professor of Philosophy, City University of New York)

An Orthogonal Model of Attention and Control in Expert Action

How do expert athletes defy the power law of practice, according to which improvement in skill, although increasing rapidly initially, eventually plateaus? On the standard account of skill acquisition, skills progress along a single continuum from consciously attended to actions to highly proceduralized (automatic) actions, making continued improvement at the expert level perplexing. The model of attention and automaticity that emerges from this account is one in which conscious attention and motor control reside at opposite ends of a continuum. In this talk, I present an alternative model: one that places conscious attention and motor control in an orthogonal relationship. This model, as I hope to illustrate, helps explain performance outcomes ranging from peak performance to choking under pressure as well as the possibility of continuous improvement at the expert level.

Shaun Gallagher (Lillian and Morrie Moss Professor of Excellence, University of Memphis; Professorial Fellow, University of Wollongong)

Dances and Affor/dances: Skilled Performance in the Arts

I start with the idea that different types of movement can be intelligent. Gesture and signing are obvious candidates, but also practices of marking and blocking in the performing arts. Such forms of movement can scaffold learning and enhance, enable or even constitute different forms of intelligent practice, such as problem solving. I review some evidence for

this in experiments on movement in simulated environments (Gallagher & Lindgren 2015). I then consider claims about how dance enables embodied thinking, imaginative and creative problem solving (Deans 2016). To account for this we can think of dance (especially improvised dance) as a form of affordance exploration (Kronsted & Gallagher 2019). Dance allows us to experiment with affordances and bodily possibilities -- new possibilities for action by heightening our kinaesthetic, proprioceptive, haptic, auditory, and other forms of perception. It trains attention -- towards the environment, towards the body, and towards others. If the body is attuned to respond to affordances through *habitual* action, there is also the possibility of breaking that habitual action to generate new affordances in the case of improvised dance. I'll conclude by discussing the concept of a double attunement to explain the aesthetic experience of the skilled performer.

Catherine Legg (Senior Lecturer, Deakin University)

A Representationalist Rethinking of Teleosemiotics: Part II

In previous work (Legg 2021; Legg & Black 2020), I explored Charles Peirce's pragmatist understanding of signs as *habits* whose connections with schemas of possible experience render them subject to increasing degrees of self-control. I argued that this constitutes a new kind of radical enactivism, which reconstructs rather than replacing 'representationalism' by analysing propositional structure as an icon-index dyad – essentially, 'a picture fused to a pointer'. Here I explore the nature of the fusing process itself, which corresponds to Peirce's third sign-type: the symbol. I show how symbols – that is, concepts – consist in nothing more than habits of associating certain icons (in Kantian terms: schemata) with certain real-world indices or 'cues'. As the icons are repeatedly used in specific contexts, and embedded in the human lifeworld, they *transform from pictures to predicates*. This offers a Peircean solution to the Hard Problem of Content, and shows that all meaning must be understood diachronically.

Ian Robertson (PhD Candidate, University of Wollongong) and **Daniel D. Hutto** (Senior Professor of Philosophical Psychology, University of Wollongong)

Against Intellectualism about Skill

This talk will argue that intellectualism about skill — the contention that skilled performance is without guided exception guided by proposition knowledge — is fundamentally flawed. It begins with an exposition of the view, as developed by Stanley, Williamson, and Pavese, respectively. We will then argue that intellectualism about skill is conceptually confused, empirically unmotivated, and explanatorily empty. In the final analysis, it will be argued that the position is, in any case, superfluous when it comes to accounting for the aspects of skilled performance it purports to explain.

Markos Valaris (Associate Professor, University of New South Wales)

Knowledge and the Shape of Skilled Action

It is natural to think that skilled action involves the exercise of knowledge. And, indeed, this thought has been endorsed by philosophers of many different stripes. My focus in this paper is on one particular way of cashing out this thought, namely, on the claim that skilled action is *guided by* knowledge. This further claim is often asserted but, so far as I can tell, neither defended nor elaborated. As I argue in this paper, I do think it is ultimately defensible. As it turns out, however, making good on it is harder than it may originally seem. As we will see, it may require revisiting some deeply entrenched assumptions in the philosophy of action.

Stephen Hetherington (Emeritus Professor of Philosophy, University of New South Wales)

Knowledge-Practicalism and the *Republic's* Powers Argument

Which elements of Plato's dialogues should be studied by current epistemologists? It is routine to discuss the *Meno* and the *Theaetetus*, perhaps because their pictures of *epistēmē* seem similar to how most epistemologists now portray knowledge. But what of Plato's account in the *Republic*? It is centred upon Book V's *powers argument*, in which *epistēmē*, like *doxa*, is a cognitive power (or capacity). The result, we are often told, is that *epistēmē* and *doxa* have wholly distinct objects: in contemporary terms, no one can know *and* believe a single truth, say – contrary to what most of us presume. Should the powers argument therefore feel wholly alien to us? Not to any knowledge-*practicalist*. For her, any knowledge of a truth is knowledge-*how* – which we may also describe in terms of Platonic powers. This paper examines that potential link between then and now. Was *Republic*-Plato an *epistēmē*-practicalist? What might a contemporary knowledge-practicalist learn from him?

Timothy Williamson (Wykeham Professor of Logic, University of Oxford)

Acting on Knowledge-How

The paper explains how to integrate the knowledge-first approach to epistemology with the intellectualist thesis that knowing-how is a kind of knowing-that, with emphasis on their role in practical reasoning. One component of this integration is a belief-based account of desire.

Massimiliano Cappuccio (Senior Lecturer, University of New South Wales; Research Fellow, University of Wollongong).

Dreyfus is Right: Knowledge-That Cannot Make You an Expert

Only contentless know-how, not contentful know-that, has the epistemic qualities required to control action skilfully, and know-how is embedded in habitual dispositions, therefore habitual control, i.e. action control guided by habitual dispositions, is the true hallmark of expertise and the only normative criterion for the evaluation of skilful performances. This thesis, that I call Radical Habitualism, finds a precursor in Hubert Dreyfus. His approach is considered extreme by most philosophers of skill & expertise: an agent –says Dreyfus– does not perform like an expert when they lack the embodied dispositions necessary to control their action habitually or when they don't rely on such dispositions to control their actions. Consequently, one cannot perform skilfully if their actions are guided by representations (strategic schemas, explicit rules, and instructions), as the knowledge-that that they convey inhibits, interferes with or simply mirrors the agent's pre-reflective engagement with the task. To defend Radical Habitualism, I will review Dreyfus' arguments, unveil their phenomenological premises, clarify their significance for a satisfactory normative and explanatory account of skilful expertise, and rebut the most common objections raised by both intellectualists and moderate habitualists. In revisiting Dreyfus anti-representationalist approach, I will particularly focus on its epistemological implications, de-emphasizing other considerations related to conscious awareness.

Kelsey Perrykkad (Postdoctoral Research Fellow, Cognition and Philosophy Lab, Monash University)

Skilled Selves

As we navigate the world, we make ongoing, often subconscious, decisions about the best course of action. Which actions we choose determine and are determined by who we believe we are and what we believe we can

control or causally influence (agency). One dimension on which a course of action can be considered 'best' is in its informativeness or reliability with respect to our agency. In this talk, I discuss two experiments that explore how participants act to infer their own agency. From the first experiment, we see that participants change how they move depending on changing environmental statistics. The second experiment explores how participants select and switch between available environments as an additional policy for action. Further, our results demonstrate that some of these action selection dynamics are associated with particular patterns of prediction error, consistent with the tenets of predictive processing accounts of cognition. I will also briefly discuss how insights from these experiments and associated features of the predictive processing framework may also inform our understanding of non-goal-directed actions, such as fidgeting.

Greg Downey (Professor of Anthropology, Macquarie University)

Learning to Hear Space: The Behavioural-Developmental Spiral of Human Echolocation

Some profoundly vision-impaired (VI) individuals learn to use echolocation, perception from reflected sound, to perceive space and obstacles. The organisation World Access for the Blind, led by Daniel Kish, himself a VI expert in Orientation and Mobility (O&M) instruction, has spent the last few decades trying to encourage more elaborate and conscious use of active echolocation, what they call 'Flash Sonar'TM. When using Flash Sonar, VI individuals use tongue clicks to actively query the environment, usually in conjunction with other O&M techniques, like use of the long cane. Some of the practitioners develop highly skilled sensory acuity with observable modifications to their nervous system associated with echo perception. This presentation offers a biocultural and developmental systems model of sensory skill acquisition and core concepts to understand human echolocation, perceptual learning, and, more broadly, the deep enculturation of the human nervous system.

Glenda Satne (Senior Lecturer, University of Wollongong)

Knowing and Doing

It is relatively well-established thesis in the current literature on intentional action that what makes an action intentional is that an agent acts intentionally if and only if she has knowledge of what she is doing. This is for agents to have practical knowledge of what they are doing. In the classical view, famously advocated by Anscombe (1957), this knowledge is both knowledge of how the agent is doing what she is doing, as well as knowledge why she is doing it. Call this “the Practical Knowledge thesis’ [PK]. Analogously one might think that to partake in plural or collective intentional activities- activities that involve more than one agent, like playing tennis or navigating a ship- is for the agents involved to have plural or collective knowledge of what they are doing together. Call this ‘the Plural Practical Knowledge Thesis’ [PPK]. Yet, it seems that this extension from the solitary to the plural case, faces an immediate challenge, for in most plural cases individual agents do not seem to have knowledge of what they are doing, not knowing how they are doing it or why they are doing it (Laurence, B. 2011; Schmid, H.-B. 2016; Satne 2021). One possible answer to this challenge is to deny that collective activities are intentional. Another response is to deny that intentional action requires knowledge. Yet another, is to claim that we need two different concepts for intentional activities, one that applies to solitary actions, the other to plural or collective actions. In this talk I present reasons for advocating a different position, one that accepts PK, and PKK as a special case, based on the idea that intentional activities of the relevant sort share a normative structure given by practical, means-end structures that agents, collectively, know. Yet the upshot of this analysis is that both in the plural case as in the solitary one, knowledge of what one is doing is not best understood as knowledge owned by individuals, whether based on ‘top-down’ capacities of prediction, planning or perspective-taking, or in terms of ‘bottom-up’ embodied processes of entrainment, motor-response and emotional sharing. Rather it is best conceptualized in terms of agents partaking in an ‘overarching’ structure (Hoffding & Satne 2019), an externalized, cognitive

scaffold that encompasses high and low-level cognition, internal and external processes, as well as the shared normative space, including the materials, with which the agents interact.

Karyn Lai (Professor of Philosophy, University of New South Wales)

Performance, Habitual actions, and Agency in the Zhuangzi

The *Zhuangzi*, a 4th c. BCE text belonging to the Daoist tradition, offers intriguing stories of mastery. The masters' actions—in carving wheels, swimming treacherous waters, catching cicadas and butchering, for example—seem habitual and unreflective. These figures do not need to pause to think about their next move, almost as if their encounters with specific circumstances are sufficient to trigger and sustain their manoeuvres. Yet, on the other hand, they are also deeply engrossed in their activities in such a way as to suggest some element of intentionality as well as higher-order awareness of their actions and activities. When they speak about their performances and their acquisition of skill, some of them are quite explicit about how they have cultivated skill (cultivation being a prominent theme in Chinese Philosophy). I explore the cultivation processes in these stories to understand the *Zhuangzi*'s notions of action and agency. I engage with some contemporary debates on habit and agentic control to investigate the nature of cultivation and performance in the *Zhuangzi*. For example, given that habitual actions are typically considered “unreflective” or “non-intentional”, and therefore thought to lack agentic control (Dreyfus 2005; Pollard 2010; Fridland 2017), how do we place these elements in Zhuangzian cultivation? I hope to demonstrate how, in the *Zhuangzi*, habitual responses and attentiveness are dynamically intertwined in skilled performance.