Varieties of Externalism

J. Adam Carter, Jesper Kallestrup, Orestis Palermos & Duncan Pritchard
University of Edinburgh

Abstract: Our aim is to provide a topography of the relevant philosophical terrain with regard to the possible ways in which knowledge can be conceived of as extended. We begin by charting the different types of internalist and externalist proposals within epistemology, and we critically examine the different formulations of the epistemic internalism/externalism debate they lead to. Next, we turn to the internalism/externalism distinction within philosophy of mind and cognitive science. In light of the above dividing lines, we then examine first the extent to which content externalism is compatible with epistemic externalism; second, whether active externalism entails epistemic externalism; and third, whether there are varieties of epistemic externalism that are better suited to accommodate active externalism. Finally, we ask whether the combination of epistemic and cognitive externalism is necessary for epistemology and we comment on the potential ramifications of this move for social epistemology and philosophy of science.

A Partial Defense of Extended Knowledge

Berit Brogaard
University of Missouri-St. Louis

Abstract: The paper starts out by distinguishing two closely related hypotheses about extended cognition. According to the strong hypothesis, there are no intrinsic representations in the brain. This is a version of the extended-mind view defended by Andy Clark and Richard Menary. On the weak hypothesis, there are intrinsic representations in the brain but some types of cognition, knowledge or memory are constituted by particular types of external devices or environmental factors that extend beyond the skull and perhaps beyond the skin. This type of view was defended, for example, by Andy Clark and David Chalmers. After drawing this distinction and clarifying the notions of causal influence and constitution, I defend the second weaker hypothesis with respect to procedural knowledge and knowledge of action and show why this sort of view supports what we might call a ‘situationist-friendly virtue epistemology’.

Epistemology Extended

Chris Kelp
K.U. Leuven

Abstract: A common presupposition in epistemology is that the processes contributing to the generation of knowledge do not extend beyond the knower’s skin. This paper challenges this presupposition. I adduce a novel kind case that causes trouble for a
number of even the most promising accounts of knowledge in current literature (virtue epistemological and modal accounts), at least so long as the presupposition is in place. I then look at a couple of recent accounts of knowledge that drop the presupposition and expressly allow the relevant processes to extended beyond the knower's skin. While these accounts can handle the problem case, they encounter difficulties elsewhere: extension occurs too easily and so the accounts predict knowledge where they ought not. Finally, I offer a novel way of extending epistemology and argue that it can steer clear of the problems on both sides.

Extended Belief and Extended Knowledge

Åsa Wikforss
Stockholm University

Abstract: The paper discusses the thesis of extended belief and its implications for the possibility of extending ordinary, personal level knowledge. A common worry is that knowledge will overextend, that there will be 'cognitive bloat'. If the subject’s standing beliefs can be realized in devices such as notebooks and smart phones, what is there to prevent the conclusion that she knows everything stored on such devices? One response to this worry is to block the move from belief to knowledge, and argue that these externally stored beliefs, although reliable, do not qualify as knowledge. I argue, instead, that the fundamental problem arises at the level of belief. We prevent bloating of knowledge by preventing the bloating of belief. To do so, I argue, we need to take seriously Clark and Chalmers’ suggestion that what is distinctive of belief is its role in folk psychological explanations. Paying attention to this role shows that the usual examples, such as Otto’s notebook information, do not qualify as beliefs. To qualify, the external information would have to be much more directly connected to, and deeply integrated into, the subject’s overall system of beliefs and desires. This, also, means that when belief does extend there will not be a worry that knowledge overextends: The demand on interaction and integration make the extended beliefs good candidates for knowledge.

Epistemic Action, Extended Knowledge and Metacognition

Joëlle Proust
Institut Jean-Nicod, Ecole Normale Supérieure, Paris

Abstract: How should one attribute epistemic credit to an agent, and hence, knowledge, when cognitive processes include an extensive use of human or mechanical enhancers, informational tools, and devices which allow one to complement or modify one's own cognitive system? The concept of integration of a cognitive system has been used to address this question. For true belief to be creditable to a person's ability, it is claimed, the relevant informational processes must be or become part of the cognitive character of the agent, as a result of a process of enculturation. We argue that this view does not capture the role of sensitivity to epistemic norms in forming true beliefs. An analysis of epistemic actions, basic and extended, is proposed as offering an appropriate framework for crediting an agent with knowledge.
JFGI: From Distributed Cognition to Distributed Reliabilism

Kourken Michaelian

Bilkent University

Abstract: While, prima facie, virtue/credit approaches in epistemology would appear to be in tension with distributed/extended approaches in cognitive science, Pritchard (2010) has recently argued that the tension here is only apparent, at least given a weak version of distributed cognition, which claims merely that external resources often make critical contributions to the formation of true belief, and a weak virtue theory, which claims merely that, whenever a subject achieves knowledge, his cognitive agency makes a significant contribution to the formation of a true belief. But the significance of the role played by the subject's cognitive agency in distributed cognitive systems is in fact highly variable: at one extreme, formation of a true belief seems clearly to be significantly creditable to the subject's agency; at the other extreme, however, the subject's agency plays such a peripheral role that it is at best unclear whether it should receive significant credit for formation of a true belief. The compatibility of distributed cognition and virtue epistemology thus turns on what it takes for a contribution to the formation of true belief to count as significant. This article argues that the inevitable vagueness of this notion suggests retreating from virtue epistemology to a form of process reliabilism and explores the prospects for a distributed reliabilist epistemology designed to smoothly with distributed cognition. In effect, distributed reliabilism radicalizes Goldberg’s recent extended reliabilist view (Goldberg, 2010) by allowing the process the reliability of which determines the epistemic status of a subject's belief to extend to include not only processing performed by other subjects but also processing performed by non-human technological resources.

Neuromedia, Extended Knowledge and Understanding

Michael Patrick Lynch

University of Connecticut

Abstract: Imagine you had the functions of your smartphone miniaturized to a cellular level and accessible by your neural network. Reflection on this possibility suggests that we should not just concern ourselves with whether our knowledge is extending “out” to our devices; our devices are extending in, and with them, possibly the information that they bring. If so, then the question of whether knowledge is “extended” becomes wrapped up with the question of whether knowing is something we do, or something we can share with, or outsource to, instruments. And that in turn raises the two questions of this paper: First, to what extent does such technology put pressure on the idea that we might have more than one conception of knowledge (or types of knowledge)? And second, what is the value of states that fit these conceptions (or types) of knowledge?

All the (Many, Many) Things We Know: Extended Knowledge

Jens Christian Bjerring¹ & Nikolaj Jang Lee Linding Pedersen²
Abstract: In this paper we explore the potential bearing of the extended mind thesis—the thesis that the mind extends into the world—on epistemology. We do three things. First, we argue that the combination of the extended mind thesis and reliabilism about knowledge entails that ordinary subjects can easily come to enjoy various forms of restricted omniscience. Second, we discuss the conceptual foundations of the extended mind and knowledge debate. We suggest that the theses of extended mind and extended knowledge lead to a bifurcation with respect to the concepts of belief and knowledge. We suggest that this conceptual bifurcation supports a form of pluralism about these concepts. Third, we discuss whether something similar can be said at the metaphysical level.

Evaluating the Extended Mind

Benjamin Jarvis

Abstract: According to proponents of radically extended cognition, cognition is located outside the boundaries of biological organisms. In this paper, I offer a new argument for a modest version of this view according to which cognitive processes are radically extended. I do so by showing that features of a subject’s environment—in particular, the pen and paper that a subject uses to solve complex mathematical problems—can have epistemic roles that are indicative of cognitive roles. I end the paper by discussing how epistemology might play a significant role in diagnosing alleged cases of radically extended cognition.

How to Understand the Extended Mind

Sven Bernecker

University of California, Irvine

Abstract: Given how epistemologists conceive of understanding, to what degree do we understand the hypothesis of extended mind? Assuming that the extended mind debate is not a merely verbal dispute, the best we can do is to superficially understand the hypothesis of extended cognition. For our (current) reading of the extended mind hypothesis to qualify as deep understanding the extended mind debate would have to be a merely verbal dispute.

Pragmatic Interventions into Enactive and Extended Conceptions of Cognition

Shaun Gallagher

University of Memphis (USA)

Abstract: Clear statements of both extended and enactive conceptions of cognition can be found in John Dewey and other pragmatists. In this paper I’ll argue that we can find resources in the pragmatists to address two ongoing debates: (1) in contrast to recent
disagreements between proponents of extended vs enactive cognition, pragmatism supports a more integrative view—an enactive conception of extended cognition, and (2) pragmatist views suggest ways to answer the main objections raised against extended and enactive conceptions—specifically objections focused on constitution versus causal factors, and the mark of the mental.

**Dewey on Extended Cognition and Epistemology**

Krist Vaesen  
*Eindhoven University of Technology*

Abstract: There is a surge of attempts to draw out the epistemological consequences of views according to which cognition is deeply embedded, embodied and/or extended. The principal machinery used for doing so is that of analytic epistemology. Here I argue that Dewey's pragmatic epistemology may be better fit to the task. I start by pointing out the profound similarities between Dewey's view on cognition and that emerging from literature of more recent date. Crucially, the benefit of looking at Dewey is that Dewey, unlike contemporary writers, also devises a corresponding epistemology. I then identify two senses in which contemporary analytic epistemology conflicts with e-cog concluding from that the superiority of the Deweyian framework, at least as it concerns accommodating e-cog.

**Can Groups have Concepts? Semantics for Collective Intentionality**

Cathal O'Madagain  
*Institut Jean Nicod*

Abstract: A substantial literature supports the attribution of intentional states such as beliefs and desires to groups. But a lacuna exists in this literature, which is the lack of much positive work on whether groups can have concepts. Since on many views, a subject cannot be attributed a belief without being attributed concepts, such a gap undermines the cogency of accounts of group intentionality. Here I draw on Lewis’s conventional semantics to propose an account of group concepts, and argue that the same considerations put forward for the irreducibility of group beliefs to the beliefs of individuals can be marshaled in support of an account of group concepts. Finally, I consider the upshot of these considerations for the question of social externalism about concepts.

**Socially Extended Knowledge**

Jennifer Lackey  
*Northwestern University*

Abstract: A fairly common view in current work in collective epistemology is that groups can have knowledge that not a single one of its members possesses. More precisely, it is argued that a group, G, can know that p even when not a single member of G knows that p. One way this might happen is if information is distributed across a collective entity in a “compartmentalized” way. An oft-cited instance of this is Edwin Hutchins’s example
of the crew of a large ship safely navigating the way to port. Each crew member is responsible for tracking and recording the location of a different landmark, which is then entered into a system that determines the ship’s position and course. In such a case, the ship’s behavior as it safely travels into the port is clearly well-informed and deliberate, leading to the conclusion that there is collective knowledge present. Specifically, it is said that the crew as a whole, or perhaps the ship itself, knows, for instance, that they are traveling north at 12 miles per hour, even though no single crew member knows this. This is taken to show that knowledge is socially extended in an important sense.

Recently, an even more radical conception of socially extended knowledge has been defended by Alexander Bird, according to which knowledge can be possessed, not only by structured groups with a unified goal—like the crew of a ship—but also by large and unstructured collective entities with diverse aims. He calls this phenomenon “social knowing” or “social knowledge,” paradigmatic instances of which are “North Korea knows how to build an atomic bomb,” or “The growth of scientific knowledge has been exponential since the scientific revolution.” In such cases, a collective entity is said to know that p despite the fact that not a single individual member is even aware that p, thereby showing that social knowledge does not supervene on the mental states of individuals.

In this paper, I argue that knowledge is not socially extended in the very radical sense defended by Bird. My argument is twofold: first, I show that endorsing “social knowing” or “social knowledge” leads to serious epistemological problems and, second, I suggest that the work done by ascribing social knowledge to collective entities can instead be done by describing such entities as being in a position to know.

Interpersonal Epistemic Entitlements

Sanford C Goldberg
Northwestern University

Abstract: In this paper I argue that the nature of our epistemic entitlement to rely on certain belief-forming processes – perception, memory, reasoning, and perhaps others – is not restricted to one’s own belief-forming processes. I argue as well that we can have access to the outputs of others’ processes, in the form of their assertions. These two points support the conclusion that epistemic entitlements are “interpersonal.” I then proceed to argue that this opens the way for a non-standard version of anti-reductionism in the epistemology of testimony, and a more “extended” epistemology – one that calls into question the epistemic significance that has traditionally been ascribed to the boundaries separating individual subjects.

Outsourced Cognition

Mikkel Gerken
University of Edinburgh

Abstract: Recent developments in technologically enabled social cognition call for a rethinking of many aspects of human cognition. According to the hypothesis of extended cognition, we must revise our psychological categories by eliminating allegedly superficial distinctions between internal cognition and external processes. As an alternative to this
proposal, I outline a hypothesis of *outsourced cognition* which seeks to respect distinctions that are operative in both folk psychology and empirical psychology. According to this hypothesis, cases of cognitively coupled systems involve outsourcing cognitive or information-processing tasks to aspects of the external reality that are substantially and explanatorily *distinct* from those that are attributable to the individual. In consequence, the individual remains a cognitive unit that is both central and indispensable in the explanations of cognitive science. As a case study, I consider the epistemology of testimony. I will argue that important epistemological categories may be preserved by adopting the hypothesis of outsourced cognition over the hypothesis of extended cognition. Moreover, I will argue that the outsourced cognition hypothesis augments the problems that beset an extended epistemology of testimony. Finally, I suggest that the hypothesis of outsourced cognition may be of more direct explanatory value in informing the epistemology of testimony.

**Empiricism for Cyborgs**

Adam Toon  
*University of Exeter*

Abstract: One important debate between scientific realists and constructive empiricists concerns whether we observe things using instruments. This paper offers a new perspective on the debate over instruments by looking to recent discussion in philosophy of mind and cognitive science. Realists often speak of instruments as ‘extensions’ to our senses. I ask whether the realist may strengthen her view by drawing on the extended mind thesis. Proponents of the extended mind thesis claim that cognitive processes can sometimes extend beyond our brains and bodies into the environment. I suggest that the extended mind thesis offers a way to make sense of realists’ talk of instruments as extensions to the senses and that it provides the realist with a new argument against the constructive empiricist view of instruments.

**The ‘Extendedness’ of Scientific Evidence**

Eric Kerr & Axel Gelfert  
*National University of Singapore*

Abstract: In recent years, the idea has been gaining ground that our traditional conceptions of knowledge and cognition are unduly limiting, in that they privilege what goes on inside the 'skin and skull' (Clark 1997: 82) of an individual reasoner. Instead, it has been argued, knowledge and cognition need to be understood as embodied (involving both mind and body), situated (being dependent on the complex interplay between the individual and its environment), and extended (that is, continuous with, rather than separate from, the world ‘outside’). Whether these various interrelations and dependencies are ‘merely’ causal, or are in a more fundamental sense constitutive of knowledge and cognition, is as much a matter of controversy as the degree to which they pose a challenge to ‘traditional’ conceptions of cognition, knowledge and the mind. In this paper we argue that when the idea of 'extendedness' is applied to a core concept in epistemology and the philosophy of science – namely, scientific evidence – things appear to be on a much surer footing. The evidential status of data gathered through extended processes -- including its utility as justification or warrant -- do not seem to be weakened.
by virtue of being extended, but instead are often strengthened because of it. Indeed, it is often precisely by virtue of this extendedness that scientific evidence grounds knowledge claims, which individuals may subsequently ascribe to themselves. The functional equivalence between machine-based gathering, filtering, and processing of data and human interpretation and assessment is the crucial factor in deciding whether evidence has been gathered, rather than the distinction between intra- and extracranial processes or individual and social processes (or combinations thereof). To prioritize biological processes here, and to assert the superiority of human cognitive capacities seems both arbitrary and unwarranted with respect to gathering evidence, and ultimately would lead to an unattractive skepticism about many of the methods used in science to gather evidence. In other words, conceiving of scientific evidence as ‘impersonal’ (or at least non necessarily personal) not only better captures the character of evidence-gathering in practice, but also makes sense of a large amount of evidence-gathering that ‘personal’ accounts fail to either acknowledge or accurately describe. Whilst we suggest it is likely that all internally-distributed evidence-gathering processes are merely contingently internal processes, a significant number of externally-distributed evidence-gathering processes are necessarily externally-distributed. Some evidence can only be gathered by extended epistemic agents.

Cognitive Penetration, The Downgrade Principle, and Extended Cognition

Hamid Vahid
IPM, Tehran

Abstract: It has been argued that just as, say, prejudice or wishful thinking can generate ill-founded beliefs, the same is true of experiences. The idea is that the etiology of cognitively penetrated experiences can downgrade their justificatory force. This view, known as the Downgrade Principle, seems to be compatible with both internalist and externalist conceptions of epistemic justification. An assessment of the credentials of the Downgrade Principle is particularly important in view of the fact that not all cases of cognitive penetration are epistemically malignant. There are good and bad cases of cognitive penetration. I argue that a proper assessment of the Downgrade Principle will have to address two fundamental questions. I identify two general ways of responding to these questions and show why they fail. It will be maintained that an explanationist conception of justification has a better chance of accounting for the distinction between good and bad cases of cognitive penetration. The Downgrade Principle is then discussed in the context of the extended cognition thesis (ECT). In particular, I look at the sensorimotor theory of perception, as a way of broadening the scope of (ECT) to include conscious perceptual experience, that sees senses as ways of exploring the environment mediated by different patterns of sensorimotor contingency. I suggest possible ways in which one could distinguish between good and bad cases of cognitive penetration on such a view compatible with the explanationist view of epistemic justification.

Non-Conceptual Knowledge

Frank Hofmann
University of Luxembour
Abstract: The paper is an investigation into the prospects of an epistemology of non-conceptual knowledge. According to the orthodox view, knowledge requires concepts and belief. I present several arguments to the effect that there is non-conceptual, non-doxastic knowledge, the obvious candidate for such knowledge being non-conceptual perception. Non-conceptual perception seems to be allowed for by cognitive scientists and it exhibits the central role features of knowledge – it plays the knowledge role: it respects an anti-luck condition, it is an achievement, it enables one to act for a reason, and it provides justification. Furthermore, it makes a straightforward and elegant explanation of (doxastic) perceptual knowledge possible: doxastic perceptual knowledge builds on non-conceptual perception as non-conceptual knowledge. Three objections that might naturally arise will be discussed and answered. Thus, the possibility of an epistemology without belief seem to be much better than the orthodoxy wants to have it. We can extend knowledge into the non-conceptual realm.

Minds and Morals

Sarah Sawyer
University of Sussex

Abstract: In this paper, I argue that an externalist theory of thought content provides the means to resolve two debates in moral philosophy. The first—that between judgement internalism and judgement externalism—concerns the question of whether there is a conceptual connection between moral judgement and motivation. The second—that between reasons internalism and reasons externalism—concerns the relationship between moral reasons and an agent’s subjective motivational set. The resolutions essentially stem from the externalist claim that concepts can be grasped partially, and a new moral theory, which I call ‘moral externalism’ emerges.