

Extending Knowledge and the Extended Mind

Interview Report Précis, Gregory Sandstrom, European Humanities University and Lithuanian Research Council

This Echo Chamber¹ interview with Professors Georg Theiner and Orestis Palermos was conducted by SERRC member Gregory Sandstrom in Torún, Poland at the *Avant – Trends in Interdisciplinary Studies* conference on 9 November 2013.

The interview focuses on the Extended Mind Thesis (EMT²) that was featured in no less than six presentations at the conference. It starts by hearing about the historical contact by Professors Theiner and Palermos with the EMT of Andy Clark and David Chalmers. The main topics of the interview are cognitive science, psychology, philosophy of mind, science and technology studies, epistemology and the relevance of the EMT in interdisciplinary collaboration.³

Theiner mentions that he had some hesitations at first to the EMT, which he learned about in a presentation by Andy Clark. At the end of the talk, Clark brought up René Descartes' view of trying to empower the human mind by 'shrinking' it into something immaterial; "to save it from materiality" instead of allowing it to be 'extended.' Yet Theiner believes that instead of shrinking our minds down to just the material level, it is rather the extension of our minds and cognition into the world, into the physical, social and cultural environment that makes human beings special.

Palermos' journey to the EMT began in chemical engineering and then moved to philosophy of science and later epistemology. He came to be attracted to the EMT as a way of connecting epistemology with philosophy of science, whereby both individuals and society can be involved, rather than being treated separately. Palermos now builds his work in the Extended Knowledge⁴ project on the notion that to understand science in a

¹ The Echo Chamber is an interdisciplinary media project of the European Humanities University and the interviewer's work is funded through a research fellowship from the Lithuanian Science Council. Additional work in this research project can be found in the author's contribution to the Collective Vision at SERRC, titled "Memetics vs. Human Extension: Round One – A Meme by Any Other Name..." <http://wp.me/P1Bfg0-Y9>

² In response to Theiner's suggestion that this Report use the term Extended Mind Thesis (EMT) instead of Extended Mind Hypothesis (EMH), as the author of this Report initially did, Palermos responded with the following about terminology: "There is much to say about the distinctive EMH/EMT terminology. Briefly, I agree with using EMT as a metaphysical assumption in the hard core of a research programme that acts as one of the alternatives to Cartesianism. Instead, we could use EMH to refer to the more specific (empirical) question about whether mental states extend and contrast it with HEC (hypothesis of extended cognition) which is a question about whether cognitive processes and systems extend, while noting that both of them fall under the broader EMT research programme."

³ *Editor's Note:* Audio files of Gregory Sandstrom's three-part interview with Georg Theiner and Orestis Palermos can be found at <http://wp.me/p1Bfg0-1g0>

⁴ Orestis Palermos and Duncan Pritchard contributed an article on "Extended Knowledge and Social Epistemology" at SERRC here: <http://social-epistemology.com/2013/07/24/extended-knowledge-and-social-epistemology-orestis-palermos-and-duncan-pritchard/>

cognitivist way one needs something like the EMT to enable studies of individuals within social settings, in other words, as a way to explore our socialising minds.

Theiner calls the EMT “a powerful idea that potentially would bring cognitive science, psychology and also philosophy in closer connection with the humanities and social sciences.” Such an approach provides reasons to collaborate on research between disciplines that is traditionally compartmentalised into different corners of the academy. Several times during the conference the notion of disciplinary ‘silos’ was raised as a cause for concern that could be overcome with interdisciplinary projects. Palermos thus also speaks of the EMT as contributing to a unified way of understanding knowledge, among individuals and social institutions, a feature that is amplified in the so-called ‘knowledge societies’ we live in today and the new internet social media that are changing our modes of inter-personal communication.

Caution is raised that without the EMT there is a danger of dualism in the philosophy of mind, where mentality is reduced to brain states. The EMT, on the other hand, enables a way of connecting individual cognition with the larger social world in a way that brings together the mental and the neural reaching out or elevating into society. Indeed, this is how Theiner frames the discussion on a couple of occasions, suggesting that the EMT deals with the relationship between brains, bodies and environments or ‘mind, body and the world.’ The key point is to accept or discover that cognition is not just “all inside the head.” The EMT explores ways that cognition is extended beyond the individual brain/mind or body and this serves to overcome the classical Cartesian dualism between mind and matter, subjective and objective, the *res extensa* and the *res cogitans*.

Theiner notes a kind of controversy or challenge in cognitive science as it is represented nowadays, in that psychologists and neuroscientists believe they have actually long abandoned Cartesian dualism, i.e. that they have ‘exorcised the Cartesian ghost.’ Nevertheless, there’s a remnant of Cartesianism that is still alive in many research traditions where people think that cognition is something that happens (strictly) inside the brain, which Theiner calls an individualistic and internalistic perspective. There are thus some tenets of Cartesian dualism that are still implicitly transported into contemporary cognitive science, which is where the EMT can be applied and amplified as an alternative.

Palermos mentions that implicit familiarity with Descartes’ ideas prevents people from making sense of what the EMT is doing in several fields of thought. He admits that it oftentimes sounds strange to people that the mind and cognition might not exist only in our heads. Nevertheless, after looking at some of the work that has been done on the EMT over the past 15 years, he says that it seems logical that the processes that allow human beings to perform mental or cognitive tasks might actually be located outside of our brains. Along with this, however, the interviewer notes that there is general skepticism about philosophy and its practical relevance for people today. Yet the study of cognition as something that spreads between people in society, Palermos contends, is an example of something that is socially relevant in a variety of ways. In this sense it also connects directly with the SERRC’s interest in the field of social epistemology. Palermos notes the value of studying how cognition works as an important feature for

understanding and participating in the production of knowledge, for example, in developing new technologies, software and hardware.

Answering to critics of the EMT, Theiner notes an ambiguity in the notion of ‘collective knowledge.’ He distinguishes ‘collaborative knowledge,’ where the emphasis is on the production of knowledge by experts where the results can be integrated, and ‘collective acceptance,’ the latter in which a group commits to normatively accept the result of research and to defend it in common. He claims that collaborative and collective aspects of research are compatible and complimentary when the epistemic duties are suitably divided. Theiner also notes that receptivity to and acceptance of EMT often depends on generational differences. For the generation that grew up with Wikipedia, social media and Google, it usually makes sense immediately to use the (technical or everyday) language that the mind ‘extends’ into the world.

A brief excursion in the interview discusses the limits of the realm of evolutionary biology in contrast to the EMT, when it comes to the impact of human choices and their effects on the environment. Evolution, notes Palermos, is not any more an automatic process on human beings as it is for the rest of the animal kingdom. With human extension and niche construction “we have our way and our say on how we will be pressurized by the environment.” Thus, we produce effects on the historical process of natural selection, which for human beings is no longer simply ‘natural selection’ anymore, but is rather more appropriately called ‘social selection’ or ‘technological selection,’ that is, if staying within the ‘selectionist’ paradigm.

The final sections of the interview involve some futuristic aspects of technological development and the growing recognition of ‘extended personhood.’ The EMT tells us that technology is an externalized form of humanity, the so-called ‘extensions of man’ thesis put forward by Marshall McLuhan in the 1960’s. Theiner claims that this means we can learn to have a cooperative or collaborative rather than competitive or antagonistic relationship with technology. It also may lead us to find ways to build a more symbiotic relationship with our social and natural environments than we currently experience.

Theiner points to the growth of cognitive and bodily prostheses and various forms of ubiquitous information processing that will inevitably lead to pressing ethical concerns. For example, how much will machines become part of persons with prostheses and what will that mean about our ‘extended selves’? Undoubtedly, it will raise questions about the legal conceptions of human persons as well as of machines.

When it comes to distributed and collective cognition, Palermos notes that in the future we will be able to connect with each other much more densely via the internet. This will provide a challenge to our sense of personhood and the way we conduct inter-personal communication and involve legal considerations, especially in regard to what we keep private, or out of the public domain.

Palermos speaks of ‘the Cloud,’ where ‘extended personhood’ can be stored in one place. At least, when it comes to information-processing, the move to the digital is changing how we ‘host’ some of the resources that are personal to us. New ways to create, store

and process information are heading our way quite soon and Palermos cautions people not to be left behind by ignoring it or waiting to embrace it.

The interviewer recalls a presentation by an A.I. researcher about whether or not robots will have ‘souls.’ From this he wonders about new machines, computing power and the so-called ‘technological singularity’ and asks if the EMT feeds into this or if it is meant for improving humanity in ways that are more suitable for civilization development and human flourishing.

Theiner responds with a comment about a paper that predicts in 2050, human beings will become immortal via technologies where we can upload our minds as pure information. This is viewed with skepticism, but Theiner looks forward to how robots and other artificial agents will become more widespread and live among us. This will raise issues like machine ethics that have not yet been given serious attention by many scholars. Palermos shares the skepticism of being able to upload our souls on-line. In terms of how we should interact with robots, he calms us to the prospect of living with intelligent machines, stating that “We don’t really have to be afraid because we designed robots.” What we want from new technologies and machines is to solve problems for us, without worrying about imagining robots that look human.

A final broad question is posed in the interview: what is unique about human beings in contrast to machines or any kind of robot? This recalls the general theme of a reduction or elevation of mind and consciousness and how it affects the way we view ourselves as persons. What does it mean to be human being, individually and collectively, and how is our meaning and understanding of personhood influenced by the EMT? If people reject the EMT does that lead to the possibility of the human mind being “shrunk beyond recognition,” as Theiner hints, where our human uniqueness is reduced to being thought of as merely a bundle of (quasi-material) conscious states?

This brief report on the interview thus ends with several questions left open for further discussions. Comments and feedback about this interview are welcome on the website below. And conversation is invited on the EMT or other collective projects for social epistemology through contact with the interview participants.

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Links

<https://villanova.academia.edu/GeorgTheiner>
<https://sites.google.com/site/sopalermos/>