

the “4EA” (extended, embedded, embodied, enactive, and affective), in contrast to the “traditional” way of understanding the problem of cognition or GOFAI (“Good Old fashioned Artificial Intelligence”). The main difference between these two approaches would be a way to understand the mind-body problem and in particular the relationship between the nervous system and consciousness. In general terms, while GOFAI adheres to the idea of a pre-existing world that is independent from the observer and understands cognition as the computation of symbols that represent the outside world, the 4EA approach rejects this view and argues instead for the co-dependency and co-determinations of subject-object.

« 8 » This conceptual shift certainly seems fundamental. If at one point we believed that we could find the solution of all human mysteries in our genes, today we seek “the truth” in our brains; the explosion of disciplines such as “neuroeconomics,” “neuroart” and “neuromanagement” somehow represent the hope of finding a solution to social and cultural issues in our neurons. There is much confusion in how we understand the relationship between the nervous system and consciousness. Perhaps the biggest problem is not in doing research that focuses only on studying neural activity without integrating subjective experience, which is therefore “reductionist,” but in the interpretation of the results thus obtained. The problem is the reductionist interpretation, and solving that it is necessarily a conceptual change.

« 9 » The second step is to translate this conceptual transformation into a change, not only in the way of understanding, but also in how to experience our relationship with nature and with our mental life. The author argues that despite the reception and development that the vision represented by 4EA has had, this has not necessarily been “embodied” by its supporters.

« 10 » This step seems central to me: conceptualizing differently the body-mind problem is not the same as actually living it differently. Without this change of attitude, we risk defending an approach superficially, by fashion, without understanding what its transformative character is. This can make us operate from the same reductionist and

dualistic paradigm as before, but this time, for instance, putting electrodes on the monks’ heads when we try to understand their skills in exploring their mental experience.

« 11 » While this article fully complies with its main objective, which is to provide a general idea of what it means to take seriously the integration of phenomenology into cognitive science, it concludes with a proposal that, in my view, has already been made. In essence, the invitation given by the author does not differ much from what Varela proposed 20 years ago (Varela 1996a): a conceptual change from representationalism to the enactive approach, and a pragmatic attitude that develops tools to incorporate the study of experience to the scientific field. Hence, we may ask: (a) why did Varela’s original proposal lead to adaptations, interpretations or readings in which phenomenology is subjugated to the criteria of validity of the natural sciences? (b) How can we, in fact, implement this paradigm shift?

« 12 » Regarding the first question, I think that an interesting exercise that could shed light on finding a response would be to conduct an analysis of the historical roots that explain the need for control, certainty and objectivity that characterizes the current way of doing science.

« 13 » Regarding the second question, I think one hint might be to embody research about experience through the analysis of practices that facilitate direct contact with the experience. These practices might well be meditation and the phenomenological reduction, but not only these. For instance, improvisation skills in music (Nachmanovitch 1990), dance (Ravn 2010) or drawing (Eslava 2014) are practices that can teach us, through direct contact with our experience, about our cognitive processes and consciousness. One could identify through tools such as the elicitation interview (Pettimengin 2006) the peculiar and common features of practices that promote openness and flexibility and encourage this attitude in different contexts.

« 14 » Since Varela made his proposal, his heirs have been responsible for paving the theoretical way of the phenomenological approach to be considered in the scientific field. Perhaps, this is a turning point, where

instead of trying to adapt the phenomenological approach to the naturalistic paradigm, we should take another step and expand the limits of the naturalistic paradigm. The target article is a great contribution in this direction.

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The Enkinaesthetic Betwixt

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> **Upshot** • Vörös proposes that we phenomenologise nature and, whilst I agree with the spirit and direction of his proposal, the 4EA framework, on which he bases his project, is too conservative and is, therefore, unsatisfactory. I present an alternative framework, an enkinaesthetic field, and suggest further ways in which we might explore a non-dichotomised “betwixt” and begin to experience our world in a non-individuating, non-dual aspect.

« 1 » There are many things to like about Sebastjan Vörös’s target article, not least of which is the clarity of style and presentation of some very subtle and complex ideas; but more than this, it is the way in which the article stretches imaginatively over a broad range of interdisciplinary material and provides a really very good account of the recent revival of phenomenological approaches in cognitive science. The ultimate aim of his article is to demonstrate that, if we are to have a thoroughgoing grasp of

conscious experience, the current emphasis on naturalising phenomenology must be complemented by a systematic attempt to phenomenologise nature and the naturalistic framework.

« 2 » Vörös concludes with an appeal to the ways in which we might access the “*betwixt* between subject and object,” ways that would prompt us

“not only to *theorise* differently about nature, mind, and consciousness, but also to *live and experience* them differently. The phenomenologisation of nature therefore entails not only the reconceptualisation of the notion of nature, but also, if not primarily, the radical transformation of being and our *experiential relation to nature*” (§37)

and, it follows, our relation to how we attend to these reconceptualisations. He claims further that in doing this we will have taken a very large

“step towards pacifying the *epistemic fury of Uroboros* (the *vicious circle* of the hard problem of consciousness) and transforming it into the *epistemic felicity of ensō* (the *virtuous circle* of lived experience and natural sciences), a hand-drawn circle in Zen calligraphy, representing harmony and enlightenment.” (§41)

« 3 » An air of optimism breathes through the paper and I find myself agreeing with a great deal, but not with everything. So there are a number of things I would like to address; these include:

- 1 | the assumption that 4EA (embodied, embedded, enactive, extended, and affective) is a satisfactory model on which to base his project,
- 2 | the continued predominance of individuating theories, which lead to a skewed set of practical implications,
- 3 | the disappointment of the old chestnut of meditation as our means of access to the “*betwixt*,” and
- 4 | the Uroboros metaphor.

« 4 » So, to the first concern: the 4EA assumption that sits at the heart of the work. The advantages of adopting the 4EA framework for thinking about consciousness are many, but one of the foremost is that it is a model, conceived gradually over a number of years and from a range of

perspectives, developed in response to the limitations of first-order cybernetics and to the classical – disembodied, representational, and symbolic or connectionist – information-processing model of cognition at the core of GOFAI. As such, it puts the agent back into its experience as a perceiving, sensing, feeling living body, embedded in a world brought forth through its activity, and where that activity is facilitated by the agent’s ability to exploit objects in its environment as a means of extending its cognitive processes. Additionally, 4EA begins to address some of the issues raised by second-order cybernetics about the observing system as different in kind from the observed system of first-order dynamics. Finally, its development as a theory has been motivated by the phenomenological tradition, both descriptive and existential, and phenomenological theory works well with the concerns of second-order cybernetics.

« 5 » These are all good reasons to adopt a 4EA framework and, despite Peter Hacker’s widespread disgruntlement (Hacker 2010), it is a framework that has provided a way in which we might better understand the mind and experience. And yet I wish to take issue with Vörös’s use of 4EA as a satisfactory starting point from which he can develop his intriguing and provocative proposal, not only to access the non-dual *betwixt*, but also to bring the experience of the non-dual attitude into our everyday life (§36).

« 6 » One of the central limitations of 4EA is that it continues to individuate, and although the mind extends its cognitive actions and requirements, the individual *qua* individual still remains within its particular body or “*skin-bag*” (Clark 2008: xxviii). But we are not isolated individuals. We act in our worlds, as conscious, socially and culturally embedded, phenomenal agents, rich in our unique experiential histories, but also rich in our greatly distributed, complex array of felt affective relations and interrelations with other agents, entities and things. We routinely transgress our own bodily boundaries, spilling over into the bodily experience of others and in this way maintaining the primordial community and reciprocity of felt co-engagement. Maurice Merleau-Ponty (1962: vii) presents this as the “*always “already there” before reflection begins*”; it

is an always already there that is not as individuated beings, but as beings that dwell within the perpetual felt community and reciprocity of an *enkinaesthetic field*, where “*field*” is used to refer to the region in which a particular condition prevails; in this case, “*field*” refers to the topologically complex, affectively-laden dialogical field of our being-with our world.

« 7 » In Stuart (2010, 2012, 2013), I have described our plenivalent – tactile, auditory, visual, gustatory, olfactory, kin-aesthetic, nociceptive and proprioceptive – possibly naturally synaesthetic, affectively-entangled living being-with our world as “*enkinaesthesia*.” It is an attempt to flesh out the always already there as “*that primordial being which is not yet the subject-being nor the object-being*” (Merleau-Ponty 1970: 65). As primordial being, *enkinaesthesia* emphasises both the felt neuromuscular dynamics of the agent, the givenness and ownership of its experience (Henry 1973), and the entwined and situated co-affective immanence of the other and all others (agential – horse, caterpillar, mould, human beings, and non-agential – book, glasses, chair, coffee). This *enkinaesthetic* experience of other agents brings with it our anticipated arc of their intentional action, which is to say that our *enkinaesthetic* experience represents the affectively-rich lived (intentional) experience of the other, and vice versa. Or put another way, in our enaction, or bringing forth, of our world we are always simultaneously enacting, or bringing forth, the world of the other, and yet it is not restricted to the other in some simple dyadic relationship; in bringing forth our world we are also anticipating (not necessarily correctly) the being and becoming of everything within our experiential sphere. We are “*always “already there” before reflection begins*,” and it is unfortunate that through our customs and practices, through our language use in science, we have become accustomed to dividing and individuating through our dual attitude in everyday life.

« 8 » Through his systematic eidetic reduction, Edmund Husserl (1983) identifies consciousness of oneself and others as an essential structure of conscious experience; he speaks of our intentional transgression, of our having a pre-reflective, non-intentional apperceptive analogizing experience

of the other (agential) as an animate being (Husserl 1982). Merleau-Ponty takes this up saying:

“[A]t the same time the other who is to be perceived is himself not a ‘psyche’ closed in on himself, but rather a conduct, a system of behavior that aims at the world, he offers himself to my motor intentions and to that ‘intentional transgression’ (Husserl) by which I animate and pervade him.” (Merleau-Ponty 1964: 118)

« 9 » Whilst Merleau-Ponty’s refers to the conduct and the system of behaviour of the other, he is also implying the felt neuromuscular dynamics of both agents in their enkinaesthetic experiential entanglement. Just as there is no principled distinction between mind, body, and environment for the coupled system in extended mind theory, I suggest that there is no principled distinction between affective agents. Through a “passive synthesis” (Husserl 2001) – a pre-conceptual sense-making that is the mark of our practical bodily, kinaesthetic engagement with our world – the other is given in our experience and we in theirs.

« 10 » So, whilst 4EA claims to be radical in its embodiment, one might object that it is not radical enough. What is needed is a theory – I recommend enkinaesthesia – that recognises and supports the claim that sensorimotor affective experience is extended, direct, and immediate. In our enkinaesthetic experiential entanglement, we are amidst a way of being with our world that is not self-dwelling; nor is it other-dwelling, it is a way of being reciprocally folded into the being of things and other agents and organisms in my world. It is not an optional way of being, though it is one we frequently fail to grasp, possibly because we are in its midst, but possibly also because we are more usually equipped with reductionist strategies rather than ampliative and generative ones.

« 11 » Now let us turn and look at an example of an alternative methodology through which we might inhabit the betwixt and begin to experience our world, that is, to “en-live,” in a non-individuating, non-dual aspect.

« 12 » It is a little disappointing to see meditation come up again as our way to enlightenment in these sorts of contexts. I do not intend to be dismissive of medita-

tive practice or of its rich potential as a part of a strategy to understand conscious experience, but there are other methods that we might also investigate, especially in the context of our enkinaesthetic experiential entanglement. The one that comes most readily to mind is that of the non-manipulative manual listening techniques in osteopathy.¹ In this practice, the therapist uses their hands not to manipulate the patient’s body, but as the focal point of the listening process when attending to it; crucially, the osteopath’s hands do not need to touch the patient or even be in constant contact with the patient’s body.

« 13 » The defining characteristic of this listening process is that it derives first and foremost from the osteopath’s ability to sense the inner space in which organic life develops, one might even say that it is to sense this organic life itself, even though we are educated to believe that such a perception is impossible because of the visual opacity of the appearance of the body.²

« 14 » They go on to say that as a result of our education, in which we treat others as bodies distinct from ourselves as subject, we think it is impossible for us to have a sensed access to and knowledge of the inner life of another living organism. Yet the process of osteopathic listening demonstrates that this is false. The osteopath must first develop a silence in her own psychic life, calming and quieting the continuous chatter and play of words and images; once a quiet is achieved, in this way they become receptive to the bodily experience of their patient. There is no physical manipulation, no searching with the hands for disharmony, just quiet, openness, and listening, and when this resonance is achieved their experience is of a between, neither subject nor object.

« 15 » Other methodologies would include, but are certainly not limited to, the enkinaesthetic resonance and attunement

1| See, for example, William Sutherland at <http://www.cranialacademy.com/cranial.html>

2| See also the presentation “The emergence of feeling in osteopathic manual listening” by Emmanuel Roche and Jean-Claude Gens at the conference “Investigating somatic consciousness: Beginning with three methodologies,” Sidney Sussex College, University of Cambridge, 4–6 September 2014.

that can develop between pupil and teacher in the practice of the Alexander Technique (Stuart 2013) or between horse and rider in natural horsemanship or in the practice of dressage when an extraordinary affective extension can occur, even down to the hooves and tail end of the rider. In the context of natural horsemanship, the betwixt word “partnership” is used to refer to the sensitivity of mutual respectful listening and communication between horse and human, and is characterised by the kind of openness and quiet we find in osteopathic listening.

« 16 » Finally, to the claim at the end, that the motivation of the article is to pacify the “epistemic fury of Uroboros (the vicious circle of the hard problem of consciousness).” Whilst I agree that cognitive science has been repeatedly stymied in its progress by encountering something that its, frequently dualist, metaphysics compels it to simultaneously conclude yet fail to resolve – from Jack Smart’s (1959) “nomological danglers” to David Chalmers’s (1995) “hard problem” and beyond – the uroboros metaphor, a metaphor of rebirth, renewal, and re-emergence, is not representative of a vicious circle. If anything, it is Vörös’s own work that fits this metaphor, presenting for the reader the enlightenment of a re-beginning, with a freshly-conceived model for understanding nature and consciousness.

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Her work provides an alternative way of interpreting the world and doing science; thus, instead of using science to explain the world, the enkinaesthetic field of lived experience can be used to explain science and situate the grounds of our moral discourse.

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