Science, Phenomenology, Body, and Emotion

A Conversation with Giovanna Colombetti

Raja Selvam



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Keywords: embodied-embedded cognition; enactivism; emotion; affectivity; neurophenomenology; dynamical systems; Eastern phenomenology and psychology; subtle body; collective body "... enactivism is an "embodied" approach to cognition, because it regards cognition as located not just in the head but also in the rest of the organism..."

On the enactive approach to cognition

Raja: Dr. Colombetti, please briefly outline the enactive approach to cognition.

Giovanna: The enactive approach to cognition, as I see it, is a subset of the broader umbrella of "embodied-embedded," or "situated," approaches to cognition. According to enactivism, cognition is enacted, or brought forth, by the whole living organism (embodiment) in interaction with the environment (embeddedness). So, enactivism is an "embodied" approach to cognition, because it regards cognition as located not just in the head but also in the rest of the organism (of course, the head is part of the body, but "body" in this field typically refers not just to the brain but also to the rest of the organism). Moreover, the organism itself is not floating in a vacuum, of course, so we need to recognize that cognition, as embodied, is also "embedded" in the environment.

Raja: How does the enactive approach to cognition differ from other embodied-embedded approaches?

Giovanna: Enactivism has some unique specificities. Most obviously, it emphasizes that cognition is enacted by living beings - entities that are not just physical but alive. Enactivism's radical claim is that it is embodied life that, necessarily, generates cognition. It follows suit that, for enactivism, all living beings (including tiny microorganisms without brains), are inherently cognitive. At the simplest level, they are cognitive in that, through interactions with their surroundings, they discriminate (this is a cognitive operation, even if a very simple one) aspects of the environment that are favorable to them (e.g., nutrients), and those that are not (e.g., noxious substances). Enactivists also call this basic discrimination "sense-making," and characterize it as the most basic instantiation of cognition. Importantly, sense-making thus understood is not representation. It is a form of meaning generation that does not require any internal representations of the external world.

Raja: What is the basis of the enactive approach to cognition?

Giovanna: Enactivism is a very rich tapestry of approaches that all emphasize that cognition needs to be understood as brought forth by living systems as they are situated in their environment and as they go about interacting with it. It has its roots in the philosophical tradition of phenomenology – especially the philosophy of Merleau-Ponty, although not only – theoretical approaches to life in biological theory (such as the theory of autopoiesis and, more recently, of autonomous systems), pragmatism, and embodied approaches in cognitive science, such as ecological psychology and theories of affordances.

Raja: In my understanding, embodied cognition emphasizes that cognition depends not just on the brain but also on the rest of the body; and embedded cognition points out that cognition is also a function of the environment. You have implied that the idea that cognition is embodied does not necessarily entail that cognition is enacted as an activist would think of it. And likewise the idea that cognition is embedded or situated does not necessarily entail that cognition is enacted. Can you think of examples of approaches to embodied cognition and embedded cognition that are not necessarily enactive?

Giovanna: There are embodied-embedded approaches to cognition that do not think being alive is necessary for cognition. For example, according to some scholars such as Rodney Brooks, the founder of situated AI, an artificial robotic body may be sufficient for cognition. But for the enactivists, not any kind of embodiment will do. In addition, I think enactivism is special and different from other embodied approaches, because, thanks to its emphasis on living embodiment, it inherently acknowledges the importance of what we may call "wet processes" on cognition – for example, endocrine and immune processes, and how they influence both the peripheral and central nervous system. Enactivism in its fullest and richest articulation is not just about action and perception,

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but also about emotions, moods and hormones, illness/health, the microbiome, and so on.

On the enactive approach to emotion

Raja: You have in your book extended the enactive approach to cognition to the phenomenon of emotion. Can you describe your enactive approach to emotion that you outlined in your book?

Giovanna: First of all, the enactive approach to emotion as I have developed it entails that emotion is not a psychological faculty separate from cognition and motivation. Enactivists understand cognition fundamentally as basic sense-making (as we just saw). In my view, this straightforwardly entails that cognition, enactively understood, is inherently emotional – or rather, affective, as I prefer to say. Affectivity is broader than emotion; it refers to a general lack of indifference, and encompasses basic motivational drives, moods, and more complex emotions.

Raja: It is consistent with the definition of emotion I use, that emotion is an assessment of how the world impacts the organism. I see that emotion is a continuous process of affective evaluation with your emphasis on enactivism.

Giovanna: Yes, I agree. Sense-making is always going on in living organisms (including humans), and that entails that life is characterized by a continuous evaluative process, which is simultaneously cognitive and affective. Enactivism as a general framework has a number of other ideas important for emotion and affect theory – such as that affective phenomena are dynamical or temporal. These concepts apply to life and mind in general, but also to specific affective states. If you want to provide an account of happiness, fear, depression, et cetera, according to enactivism you need to understand them as dynamical, i.e., as unfolding in time. In other words, mind, including specific affective states, need to be understood as processes (rather than states). Moreover, drawing on dynamical systems theory, enactivism emphasizes that these processes proceed at different timescales, and influence one another in complex, non-linear ways.

Raja: Your book provides scientific evidence of the inseparability of cognition and emotion, not only in the subjective experience but also in the objective physiology of the brain and the body. Isn't that an instance of bringing together what you call the third person methods of science that depend on measurement with the first person and second person methods of phenomenology that take intra-subjective and intersubjective experiences of phenomena just as seriously?

Giovanna: Yeah, that's a good question. As you know from the book, I think an important aspect of enactivism is precisely this "neurophenomenological" methodological approach. Enactivism is a naturalistic framework; i.e., it strives to be continuous and consistent with science. At the same time, however, it doesn't want to ignore intra- and intersubjective experiences that are difficult to explain, or even just capture, with the quantitative methods favored by the "hard sciences." In fact, the latter tend to avoid or even dismiss subjective experience, regarding it as too private, subjective, and ultimately unreliable as a source of knowledge about mental processes. Enactivists strongly believe that one cannot just simply dismiss consciousness as private, and therefore not worth studying. Clearly, the mind also has this experiential or conscious dimension. Enactivists favor an approach where both experience and physiological processes are taken seriously, studied with the best available methods, and examined both in themselves and in their relationship. We can go from experience to physiology and back, using different methods for studying both that complement one another. My favorite term for this pluralistic methodological approach is "neuro-physio-phenomenology". It is certainly not an idealist position that says all that exists is consciousness and that matter is also consciousness; but neither is it a physicalist-reductionist position that thinks that one can study the mind only by studying physiological processes.

Raja: Yes. It is a very reasonable and inclusive approach.

Giovanna: Going back to the inseparability of cognition and emotion... I have argued that it is supported by both physiological and experiential accounts. As you mentioned, at least some neuroscientists have recently questioned the traditional idea that there are uniquely "cognitive" and uniquely "emotional" parts of the brain (see, for example, the work of Luiz Pessoa). Phenomenologists add that if we observe our own conscious experiences, the separation of emotion and cognition also falters. At the level of experience, it seems evident that when I evaluate something or when I reason (cognition), it is always in a mind that is already motivated and value-laden, and guided by personal interests and involvements (emotion/affect). As I mentioned above, my preferred formulation is that cognition is inherently affective. To be affective is to lack indifference, to give a damn. My view is that cognitive beings, as living organisms striving to maintain themselves, always already (i.e., necessarily) give a damn (care, are not indifferent) about their situation – and, in this sense, they are always already affective. In humans, this implies that even when we are engaged in "higher cognitive processes," such as planning a marketing strategy, or solving a mathematical problem, we are never indifferent or disinterested; rather, we have motivations, we care about something, we have a sense that things are going well (or not), and so on.

Raja: Since the publication of your book in 2014, more neuroscientists have come forth with the view and evidence that cognition and emotion appear to be inseparable in the brain physiology, as I discovered in the research I did for my 2022 book. In fact, there is even an article in a journal titled Affect is a Form of Cognition.

Giovanna: That is great! Please give me the reference!

On the dynamic systems approach to cognition, emotion, and behavior

Raja: What is the dynamic systems perspective in relation to cognition and emotion?

Giovanna: This is a big question to which I cannot really do justice here – please see the detailed discussion in my book. To put it very, very briefly... in the 1990s, existing accounts of cognition as computational and representational - symbolic systems, neural networks – were criticized by "dynamical system theorists" for being too static. These theorists argued that mind needs to be understood as a process, maybe even a continuous one, not just as a sequence of static and discrete representations. *Mind as Motion* was the title of an influential book published in the mid-90s (edited by the philosopher Tim van Gelder and the linguist Robert Port). The editors took the concepts and other formalisms from dynamical systems theory (a mathematical approach to physical dynamical systems) to be the best modeling tools for cognitive processes. So, the important idea developed that cognition evolves, or even emerges, over time, tending toward "attractors" that develop through interactions with the environment. Many dynamicists in cognitive science also criticized the idea that cognition involves the manipulation of internal representations. Ten to fifteen years later, this dynamical approach found its way from cognitive science to the study of affective states – and this "dynamical affective science" is something I discuss in my book, as part of developing an enactivist account to affective states, or rather, of course, processes!

Raja: Can you give me an example of how it was applied to the understanding of emotional phenomena?

Giovanna: Yes. *Affective* phenomena. By the way, it is more general than "emotional" in my terminology! Let us take the study of facial expressions of emotions. Rather than taking them as pictures or snapshots – as is still often done within the "ba-

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sic emotions" paradigm – the dynamic approach will treat them as dynamical configurations that emerge over time on the basis of various, and mutually influencing combinations of internal and external stimuli, and/or conditions or influences. Emotions, moods, and other affective states are treated as processes – both physically and experientially. They unfold over time.

I also think that dynamical systems approaches help us conceptualize cognition and affectivity as one simultaneous embodied-embedded – or rather enactive – process that unfolds over time. For example, fear can be seen as a cognitive-physiological process that unfolds over time, involving the simultaneous evolution of evaluative perspectives (I need to get out of here, I can/cannot cope, this is/is not safe), many different, and mutually influencing, bodily events and emerging feelings that can also influence the rest of the system.

On the inseparability of cognition, emotion, and behavior

Raja: In your book on the enactive approach to emotion, you argue that cognition as a valuation or appraisal is inherently affective, and affect is inherently cognitive. Are you suggesting that there is no difference between the two?

Giovanna: No, that doesn't follow. That is not what I mean.

Raja: Please clarify.

Giovanna: The pragmatist philosopher, John Dewey, can really be helpful here because he talked a lot about how, in order for us to analyze a phenomenon such as a conscious experience, we need certain concepts - such that one is able to "remember" something, or to "make decisions." We can also say that these are "cognitive processes" because, indeed, they involve some elaboration of knowledge - cognition, etymologically means knowledge, understanding. These are of course useful concepts for the purposes of analyzing mind and behavior. Likewise, it may be useful to describe certain phenomena and/or behaviors as "emotional." For example, we may want to use this concept when talking about the combination of certain feelings, values, bodily processes, and so on. At a conceptual level, we can distinguish these

things because we have always had a tradition of theoretically distinguishing between cognition and emotion this way. But... Dewey wisely warns us that it is one thing to make and use these conceptual distinctions, and quite another to reify them into separate existing entities, and, relatedly, understand them in such a way that they exclude one another (for example, cognition is non-emotional and emotion is non-cognitive). The latter is a fallacy – the psychological fallacy of reifying concepts initially drawn for the practical purposes of analysis and description into separate psychological faculties.

As we talked about earlier, as the organism goes about its environment, its enactment has, inseparable within it, what we could characterize in the abstract, as part of conceptual analysis, as "cognitive," "emotional," and "behavioral" aspects. But when we look at our experience closely, we find that those are not separate parts of the experience which, at most, merely "interact" with one another. Rather, for example: bodily feelings come with evaluations; evaluations come with bodily feelings and attitudes; understandings are motivated; and so on.

So, I say that cognition is affective, and that affective processes such as emotions are cognitive. But I am not at all saying that cognition and emotion are one and the same! Conceptually, they are different things, and by using those words we single out different aspects of an experience. Is that clear?

On the extent of dependence of cognition on the body

Raja: Yes. Thank you. We clearly represent our experiences through conceptual categories through language and other symbols such as images. And cognitive categories might appear to be the most abstract of them all as they tend to be more disembodied, without obvious physiological correlates, than emotion and behavior. In the field of embodied cognition, I have heard some people say that even the most abstract cognition depends on the body.

Some even go as far as to say that there is no cognition that is not dependent on the body. They do not mean it in the sense that the body gives the brain the energy to perform cognitive functions. They mean it in a more fundamental way. We have an affective system and we have a cognitive system when we think of them as abstract cateqories so that we can reason, as you have said. They are so intertwined, so inseparable, not just in experience phenomenologically, but also in the physiology of the brain and the body from all the research that we see emerging. They appear to be more concurrent or co-occurring or simultaneous than sequential or back-and-forth processes, even though they might appear to be sequential or back-and-forth processes at the level of abstract categories of cognition and emotion at first glance. All of this suggests that no matter how abstract cognition gets, it appears that it has to be conditioned by what's going on in the body of the organism affectively as it goes about its environment. Are these conclusions consistent with your enactive approach to emotion?

Giovanna: Yes - broadly, they are.

Raja: Even inferences are enacted?

Giovanna: Yes. What is special about them? I think that you are referring to reasoning. As I mentioned earlier, I do not think that higher cognitive capacities, as they are traditionally called, are non-affective. Imagine you are thinking really hard - reasoning, drawing inferences - while writing a paper or during a therapy session. How is this "purely cognitive"? I just do not see it! To begin with, you will be motivated to engage in reasoning. As you reason, you will have a sense of it going well or not well, and you will know/feel that you have reached a good answer, or a bad one. You have this sense all the time, and this sense is clearly affective: you are always giving a damn. That's what I mean by "cognition is affective." It is never free of affect because we are ultimately motivated and interested, even if minimally. We care about what is going on in us, or rather in our situation - and so do all living systems, not just human beings, as explained earlier.

On affectivism

Raja: I sent you a paper called The Rise of Affectivism, signed by around 65 leading researchers of emotions. The list includes Damasio, LeDoux, and Barrett. In the paper, the signatories offer accumulated scientific research evidence for the claim that it is emotion that drives all aspects of cognition and behavior in every moment, as opposed to earlier claims of cognitivists that it was cognition that determined emotion and behavior, and even earlier claims of behaviorists that it was behavior that determined cognition and emotion. These perspectives give a sequential order to cognition, emotion, and behavior. They are not saying that the three co-occur and co-determine each other. Earlier, you said that cognition as a sense-making function is never free from emotion. Cognition is driven by emotion, but would you go so far as to say that emotion determines cognition and behavior in every moment in a sequential sense? Or would you say that they are co-occurring or co-determining each other in some way?

Giovanna: I will go with the latter. I think that paper has been very much influenced by the work of Klaus Scherer, a psychologist of emotion who has worked to put forth a complex view of emotion that involves cognition, physiology, action tendencies, and feelings. He still separates them into components that interact with each other however, which is something I criticize in my book. On the one hand, I really applaud Scherer's efforts to bring everything together. On the other, I think he commits the psychological fallacy of reifying analytical concepts into separate psychological components that interact with each other. You are right; the sequencing of emotion before cognition and behavior, or any other order, is very much against the spirit of enactivism. The real problem is the hard separation of things that cannot be really separated in their nature. Of course, once you start saying that they are not separate and interacting in a linear way, scholars, especially scientists, will want to know whether you are saying that they are the same thing... which is not what I am saying at all. But it is difficult to give a plausible alternative explanation for scientists who want to manipulate variables and measure them to obtain results.

Raja: Does saying that they are co-occurring and co-determining each other avoid the problem of sequencing them?

Giovanna: Yes. To some extent. But there is also some kind of causal influence among them, right? There are studies that show that the behavior of judges is more lenient after lunch. This suggests that eating leads to affective states, satiation for example, that influences their judgements to be more lenient. But then, when do the judges stop being cognitive? They never stop being cognitive-affective, yet there are causal influences among cognitive-affective moments or processes. It's likely to be a complex story...

Raja: Perhaps we can say that they are co-occurring and co-determining and bouncing off each other, where one process is more dominant than the other at different points in time, as the organism goes about its environment in the enactive sense with the clear understanding that they are not separate things. And operations in the mind at the level of abstract categories of cognition, emotion, and behavior, in addition to affecting the whole organism, might bring about real or apparent sequencing and cause-and-effect relationships among cognition, emotion, and behav-ior.

Giovanna: Yes. Possibly. Just remember that enactivists do not want to talk of "inherently" cognitive or emotional processes.

On enactivism and body psychotherapy

Raja: Yes, I see now in what I just said that it is really hard not to think of them as separate things. Moving on, I don't know whether you're familiar with body psychotherapy approaches or somatic psychology approaches.

Giovanna: No, or rather just a little. Tell me more!

Raja: People become disembodied when they have difficult experiences. In addition to psychological defenses such as denial, they do it through physiological defenses such as constriction. An example is the constriction of the breathing muscles as a defense. When people do not breathe enough, there is not enough energy to have the difficult experience. In my book, I describe seven categories of such physiological defenses, involving different physiological systems. The defenses are considered to be self-protective and adaptive in the instances they are formed, but maladaptive if they persist in the future in environments where they are no longer needed. They limit life and lived experience. Just like psychological defenses, they are often unconscious and outside of one's awareness. In body psychotherapy approaches, we work to help clients become aware

of these defenses and undo them through one method or another in order to access past lived experiences, and work with them and heal them so clients can be more adaptive and functional in the present and the future.

When I think of such defenses through the lens of enactivism, I think of them as part and parcel of the organism's enactment as it goes about the world, in that they might persist as maladaptive barriers to lived experiences in the way of being more functional in the present. When I learned Western phenomenology in my doctoral studies, I came across the concept of "bracketing" with the definition that our lived experiences, conscious and unconscious, are "bracketed" or are also filtered through the structure of our bodies. I now see that such filters can also include such psychological and physiological defenses. I understand now that when phenomenologists talk about lived experiences, they are not necessarily distinguishing between conscious and unconscious, or functional and dysfunctional lived experiences in the way we approach experiences in body psychotherapy. Even simple organisms are enacting and learning. Through the lens of enactivism, clients can be seen as going about and enacting their lives in their environments, functionally or dysfunctionally. Through their enactment, they learn that their lived experiences are limited or dysfunctional in some way, by themselves or through others, and that there are some ways to remove their defenses so that they can be more functional. That is how their enactment might lead them to therapy. So all of this can be seen within the framework of the enactment approaches to cognition and emotion.

I can also see that in instances phenomenologists, or others using phenomenological inquiry to explore or validate their understanding of specific aspects of the self or the environment, could benefit from knowledge of physiological defenses gained from body psychotherapy. Understanding how to identify and remove these defenses could help them achieve more valid outcomes.

The evidence that the body is important not just for behavior and emotion but also for cognition has grown, especially in the last 25 years. I see that the enactive approaches to cognition and emotion contribute to this body of evidence in ways we have discussed above.

"... For enactivism, intelligence is not all in the head. The body is constitutive of cognition and intelligence, and so, by working therapeutically on the body, you are already working on cognition..."

Giovanna: Yes, enactivism provides a theoretical framework that allows you to clarify how the body is a source of meaning – rather than simply a response or effect of brain-based cognitive processes. For enactivism, intelligence is not all in the head. The body is constitutive of cognition and intelligence, and so, by working therapeutically on the body, you are already working on cognition.

I have a question for you. The way you describe lived experiences accessed when defenses are removed, it sounded like they are treated as states rather than processes. Like things that are hidden that are found again. Is that the tradition in body psychotherapy?

Raja: You are right. Many body psychotherapy systems do tend to describe them as stored experiences to be retrieved for processing. I have not found this view to be neurologically tenable. I tend to understand physiological defenses as structures that prevent the formation of a past lived experience from being formed again. I now understand the latter view is more consistent with the enactive approach, where a defensive structure would prevent the enactment, rather reenactment, of a lived experience from the past. I am glad to have a theoretical basis for my view in the enactment approach.

Thank you so much for your time, Dr. Colombetti, for a very informative interview and an interesting conversation. It is great to have your phenomenological perspective on psychological phenomena that is also, by and large, in line with the emerging science of cognition, emotion, and behavior.

Giovanna: Thanks to you as well.

On Eastern Phenomenology, Psychology, and Body

Dr. Selvam shares a brief account of the contribution of Eastern phenomenology and psychology to the understanding of ourselves and our experience, especially with respect to the different levels of embodiment – levels that are often ignored in the West. Dr. Colombetti comments on the exposé.

Raja: In the West, most psychological approaches assume that there is only one body from which all experiences, including our awareness, arise. Western phenomenology also appears to assume the same in its investigations of lived experiences, if I am not mistaken. Eastern phenomenological investigations of self and self-experiences, including one's awareness, going back thousands of years have revealed that individuals have more bodies than one that bear on their lived experiences. There is the individual gross body that corresponds to the Western notion of the body of an individual. This is the body that is conceived in the womb and ends up in a tomb or on a funeral pyre. The term "gross" refers to its existence also on levels of matter that lend themselves to perception through the five senses, or the interoceptive sense. There is also the individual subtle body, where the term "subtle" refers to its existence only on levels of matter that are not possible for an individual (whose awareness is identified with the gross body) to become aware of through exteroception or interoception. The individual gross body also has a subtle level, levels of matter, that one cannot become aware of through exteroception or interoception when one's awareness is strongly identified with the individual gross body. The body of the universe is the third body, or the third level of the body, of the individual because there is ultimately no boundary between the universal or collective body and the individual gross and subtle bodies on some levels of matter that cannot be easily perceived through exteroception or interoception. Given our modern scientific knowledge, especially from quantum physics, we can infer that the subtle levels of the individual gross and subtle bodies, as well as the universal body, are levels of matter that are extremely difficult, if not impossible, to measure scientifically. There is also a fourth body – the unchanging and unlimited collective body of pure awareness – that forms the basis of the universe. Individuals who can disidentify their awareness from their ever-changing gross, subtle, and universal bodies may ultimately realize this pure awareness as their true self, an achievement often referred to as enlightenment.

What scientific evidence can corroborate the above findings? The scientific approach, with the limitations of its methods as well as the scope of its inquiry, can at best only corroborate, or point towards, because it can neither confirm nor falsify levels of reality it cannot investigate. There is evidence in quantum physics for levels of matter that we cannot observe, either through exteroception or interoception, or measure scientifically. We have evidence for the subtle body in research on out-of-body experiences, during near-death experiences or during meditation, when awareness is no longer identified with the individual gross body. We can also infer from quantum physics that there is no hard boundary between individual bodies and the collective body of the universe at some levels of matter at the subatomic (quantum) level. We have some evidence in neuroscience that the sense of self at the level of the gross body is derived from our experience. It is an abstract neurological epiphenomenon of our experience, as opposed to it being an agent that is initiating, causing, or enacting an action or experience, even though it appears that way all the time. We also have evidence in neuroscience that there is no free will, and what appears to be local awareness at the individual level might be pan-psychic, suggesting that awareness through which we know all that we know is common across individuals. Even David Chambers, who coined the phrase "the hard problem of consciousness," is saying this of late. The knowledge from Eastern phenomenological investigations of the self and self-experiences is similar. The individual sense of self is derived from experience; it is an illusion, and there is no free will at the individual level. If there is no individual sense of self and no free will, what then is the source of all of our experiences? Eastern perspectives suggest that our experiences at the level of the individual gross body are stimulated and regulated by the individual subtle body, and that our experiences at the level of the individual subtle body are stimulated by the collective or universal body. There are reports of people in all walks of life all over the world corroborating these observations, all the way to their ultimate personal realization of themselves as the unchanging and unlimited awareness that is the basis of the universe, which is at the same time inseparable from the universe. People have had these experiences sometimes spontaneously, or through meditation, or phenomenological inquiry of self and self-experience, or during spiritual practice.

These findings have major implications for body psychotherapy and psychology, as well as for phenomenological inquiry of psychological phenomena in the West. If there are several bodies contributing to the stimulation and regulation of experience at the level of the individual gross body, is the practice of body psychotherapy limiting its effectiveness by overlooking the findings from the East? It is interesting that The American Psychological Association, while yet to approve of a body psychotherapy approach for continuing education for psychologists, as far as I know, has approved two energy psychology methods of TFT and EFT, as far back as 2012 on the basis of their incremental effectiveness in outcome studies with control groups.

These findings from the East are not new. They have been around for thousands of years. Their influence can be seen in some mainstream psychological approaches, such as Jungian psychology, and body psychotherapy approaches such as Biosynthesis. Why have they not influenced Western psychology and phenomenology to a larger extent is a question I asked myself in my dissertation for my PhD in clinical psychology. There seem to be multiple reasons.

One reason is the use of religious or spiritual terms in these extensive Eastern findings, which span thousands of years of phenomenological inquiry into the nature of the self, the world, and their relationship. In the East, the individual subtle body is sometimes referred to as the Soul. And the collective universal body is at times called the Spirit, or God. Carl Jung, taking inspiration from India, called the collective universal body the Self. He also said that the Self was God-like from observing how the whole is symbolized across cultures. For this, he was criticized in the West as unscientific, and called a mystic. You can see how the use of the terms Soul, Spirit, and God might have unfortunately confounded in the Western mind religion and spirituality with the results of a phenomenological inquiry that anyone can undertake to verify the results for themselves. The intermingling of philosophy, psychology, religion, and spirituality is less of a problem in the East. It appears that Eastern phenomenologists benefited from a more favorable cultural environment where religion was not at odds with science, philosophy, and psychology to the same degree at the time of the inquiries. Religion and spirituality on the one hand, and science and philosophy on the other, have been so opposed to each other in the West that the presence of religious or spiritual terms in the findings of Eastern phenomenologists probably made it easier for Western scientists, phenomenologists, and psychologists to instinctively avoid closer examination of these findings and the methods used to obtain them. The fact that many of these Eastern phenomenologists were deeply religious and treated reverently as gurus I am sure did not help.

A second reason is that these findings were obtained through first- and second-person phenomenological methods. This approach may have made it even harder for science to engage with them, especially when scientific methods lack an adequate grasp of their limitations and scope, leading to the dismissal of findings even from Western phenomenology.

A third possible reason is a fundamental difference between Eastern and Western philosophy on the nature of the subject in subject-object relationships. In Western philosophy, as exemplified by the writings of philosopher Immanuel Kant, it is not possible to think of a subject without an object, and an object without a subject. The citing of Kant is important because his philosophy has informed and influenced Western science, phenomenology, and psychology a great deal. This is one of the reasons why Jung, a Swiss psychologist who incorporated much of the larger Eastern model of the psyche into his own worldview, balked at accepting its ultimate finding that a singular unchanging awareness is the basis of the universe – a finding that even quantum physicists such as Erwin Shrödinger, Niels Bohr, and David Bohm corroborate in their writings as a distinct possibility that is consistent with the trajectory of findings in science.

In Eastern philosophy, phenomenology, and psychology, a subject can be aware of itself without making or splitting itself into an object. One can easily verify this obvious fact for oneself by turning one's attention to the witness consciousness, or pure awareness, in one's mind through which we become aware of everything. Everything becomes conscious through one's awareness. However, the fact that one's awareness can be conscious of itself without becoming an object is often seen as self-evident. The reason why it has been missed for so long in Western science, phenomenology, and psychology might have to do with the basic assumptions that they tend to hold as axioms, as incontrovertible truths, that blind them sometimes to the obvious they could find if they were to drop them. When we strongly preclude things as not possible, we do not look for them. For example, we lived for a long time with the conviction that earth was flat, while even threatening people with their lives if they disagreed.

At the top of the list of such unexamined axioms is probably the basic assumption that awareness does not have the capacity to be self-aware without making itself into an object. Then there is the assumption that all our experiences, including awareness, are a product of one body, the physical body in the West, or the individual gross body in the East. The insistence that only the scientific method can produce valid findings about oneself and the world, despite its obvious limitations, is another. However, because Western phenomenology does not share the illusion that the scientific method is without limits, it might lead the way to further exploration. This could involve examining the nature of the subject of one's experience, rather than just studying the experiences of the subject. Perhaps it could then validate the findings of Eastern phenomenologists on the different levels of an individual's body and psyche so that Western psychology can follow suit, and work with the different bodies involved in the experiences of an individual. This can offer a more comprehensive model of the psyche, not only for greater self-understanding, but also for making psychology more effective in all of its treatment approaches from embodying all levels of the body and psyche, since it is becoming increasingly scientifically clear that cognition, emotion, and behavior depend not just on the brain, but also on the body and the environment.

Giovanna: This is a lot to reflect on and comment on! Do we have a whole day, or more? Let me at least say something about parallels - or rather the lack thereof - in Western phenomenology. In Western phenomenology, philosophers like Sartre, Merleau-Ponty, and many others have pointed out that consciousness, including consciousness of one's own body, is not always conspicuous, obvious, or "in the foreground." It can also include, for example, bodily feelings we only have "in the background" - such as, perhaps, a piercing headache we do not pay attention to because we are giving a lecture. Such phenomena are said to be "implicit," or "prereflective" (i.e., not attended to or reflected on). This goes some way toward the idea that we also have "subtle" bodily feelings ... but it is not reflected in notions comparable to the prana in India or *qi* in China. The latter are, as you say, often considered as actual types of bodies - the "subtle body" constituted by the chakras, for example. So, there are some attempts in Western phenomenology to say that consciousness is not always fullblown consciousness, explicitness, but it is not the same thing you were talking about.

Another thing I thought about as I listened to you is the concept of "meta-consciousness" in Western philosophy. This refers not just to being conscious, but to being conscious of that, or about being conscious. For example, when I look around now, I'm conscious that there is some blue object over there. And I can also reflect on the fact that I am having, say, a visual perception of the blue object, rather than an auditory one. This conscious reflection about my perception of blue is "meta-consciousness." There's an extensive discussion of it in analytic philosophy; it is sometimes also called "second-order consciousness." Anyway, the point here is that this notion implies that the mind has more than one level of consciousness. I know that in the Upanishads there is also a famous distinction of different levels of consciousness, although it is quite different (it refers to waking consciousness, dreaming consciousness, etc.). Importantly, the Upanishads also refer to our most inner and true self (*atman*) as "the watcher" or "witness consciousness" – indicating a conception of *atman* as what some Western philosophers call "meta-consciousness."

Raja: Perhaps there is a need for a little more clarification. *Atman* is the limited witness consciousness at the individual level. When freed of its identification with the individual, it is revealed to be the same as *Brahman*, the unlimited witness consciousness that is the invariant basis of the dynamic universe. The East says that all of this can be arrived at phenomenologically by anyone investigating the witness consciousness and the limited sense of self that it is identified with, the sense of self that is an epiphenomenon of experience.

Giovanna: Indeed, in Western phenomenology, pointing out that we can be conscious of the fact that we are conscious is not a consideration that leads to claims about the nature or essence of the world, and/or to religious inferences.

Raja: In the East, meta-consciousness, the awareness that I am aware of something, such as "I am aware that I am thinking," is just the starting point of a longer inquiry into the nature of the witness consciousness. Even in the "I am aware" part of "I am aware I am thinking," the witness consciousness is fused with the sense of self that is a product of experience, a product of the gross body when one's subtle body is interacting and identified with the gross body, and a product of the subtle body when it is outside of the gross body, as in out-of-body experiences. The phenomenological investigation of the "I" with the question who is this "I" that is thinking can lead to the sense of self becoming an object of the pure witness consciousness, and becoming separable from it. Further investigation of this witness consciousness without the sense of self obscuring it can lead to the realization that not only it is who one is, but it is also the very basis of the universe, including all levels of one's body, or all of one's bodies in the universe. This self-realization is possible for every individual who engages in such a phenomenological inquiry into the nature of oneself through one's experience, according to Eastern phenomenologists.

Giovanna: As I am sure you know, enactivism in its origins was developed in a book called The Embodied Mind (Varela, Thompson, and Rosch, 1991), which was heavily influenced by Buddhism. Later on, Evan Thompson wrote more about the relation between Western phenomenology and consciousness studies (including neuroscience), and Asian philosophies and meditation practices – see, for example, his wonderful book Waking, Dreaming, Being. Whether and how enactivism relates to notions of selfhood, meta-consciousness, atman, and Brahman is a very complex question I will not try to address here. It will be interesting to those of your readers curious about enactivism to also look up, if they do not know it already, the Mind & Life Institute. Many scholars involved with it are sympathetic to enactivism. Francisco Varela was one of the founders of the Institute. They are generally interested in attempts to bring contemplative traditions in dialogue with experimental science. The Institute focuses strongly on Buddhist approaches to the mind, and is open to other traditions as well.

I do see one problem, though, in what you said. When Western scientists hear statements like "the subtle body is a body of subatomic particles," or "the finding in quantum physics that matter and energy also exist at the subatomic level corroborates the notion of the subtle body," they are likely to dismiss them right away. I am very interested in the notion of the subtle body, and I know I sense things that I do not usually sense when I practice Tai Chi and Qi Gong. However, I think we need to be cautious when making claims about subatomic particles and the subtle body, as these are empirical claims that are, however, very difficult to verify experimentally. But we can keep trying.

Raja: Yes. I sincerely hope so. But scientists who cannot admit to the limitations of the scientific method and of the narrow scope of its inquiry are

prone to dismiss things that can only be discovered through phenomenological means. It is good that quantum physicists of the highest caliber, such as Shrödinger, Bohr, and Bohm, are able to see that the findings of Eastern phenomenologists enhance, if not complete, their scientific understanding of the world. I also hope that Western phenomenology, philosophy, and psychology become more embodied by incorporating all the bodies involved in the psyche in their work.



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