

Open Peer Commentaries

on Mario Villalobos and Dave Ward's

"Lived Experience and Cognitive Science"

Confusion of Reflective Domains?

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> Upshot • I shall not address directly the article on which I am supposed to comment, and that I find very interesting, but I shall make four commentaries on the general subject of the confusion of domains in our reflection on biological and cultural phenomena.

First

« 1 » Science is a conceptual and operational instrument that we use for explaining any experience that we may live through proposing some process or mechanism such that if it were to operate, it would give rise in us to the experience that we are explaining in the domain of our living in which we live it. As we do science, we explain the coherences of our living with the coherences of our living. The fundamental care in doing science is not to confuse domains, that is, not to try to explain the coherences of what occurs in one domain with the coherences of what occur in a different, not intersecting domain.

« 2 » When we speak of biological phenomena, we refer to all that occurs in the operation of living systems in the continuous realization of their existing as molecular autopoietic systems. When we speak of cultural phenomena, we refer to all that happens in the domain of the realization of human beings as a person as they participate in reflective conversations with others or with themselves. The biological and the cultural phenomenal domains do not intersect and

what occurs in one cannot be deduced from what happens in the other. No doubt the biological processes and the interpersonal relations operate through molecules as they occur in their realization of the molecular autopoiesis of the living beings, and they affect each other in their realization, but the biological processes and the interpersonal relations are different kinds of phenomena and to confuse them is a conceptual mistake. Accordingly, notions of purpose, finality, intentionality, etc. do not apply to the happening of the molecular biological processes; they apply and make sense only in the domain of human relations as distinction of particular aspects of human behavior in the domain of the co-ordinations of living in reflective conversations.

Second

« 3 » When living systems arose on the earth some 3.8 billion years ago as discrete molecular autopoietic entities, they arose together with the molecular ecological niche that made them possible as organism-niche ecological unities. Living systems, as molecular entities, are structure determined systems; and in their interactions with other molecular entities, all that takes place is a reciprocal triggering of structural changes that results in the arising in them of dynamic configurations of molecular architectures that constitute the ecological organisms unities in which they exist, are conserved and transformed or disintegrated. So, when living systems arose as organism-niche unities integrating the ecological domain that made them possible, they arose as dynamic components of a dynamic molecular architecture that became the biosphere in which, and in coherence with which, they have been continuously conserved and transformed since their origin millions of years ago. The funda-

mental result of this historical process is that every living system exists only in operational coherences with the molecular architecture that constitutes the dynamic biosphere that makes possible the realization of its molecular autopoiesis in its individual ontogeny as a manner of living that can be conserved as the same or with transformations from one generation to the next. In other words, the biosphere occurs as an extended molecular architecture that exists in continuous change and transformation around the conservation of a network of intercrossing ecological organism-niche unities in which each organism realizes its molecular autopoiesis following a path of change and transformation defined at every instant in its locality by the coherences of its inner sensations in the processes of its actual realization. When this process stops happening, the organism-niche ecological unity disintegrates as the organism dies. The extended molecular architecture that is the biosphere in which we now live is the present of the conservation and transformation of the one that arose with the origin of the network of ecological organism-niche unities that began with the origin of living beings near 4 billion years ago.

« 4 » In this manner, the evolution of living systems has occurred in the changing dynamic molecular architecture of the biosphere in the never-interrupted conservation of molecular autopoiesis through a process of reproduction of manners of living that, at the same time as they have conserved it, have give rise to variations in the form of their realization in the constitution of branching lineages of intercrossing ecological systems of organism-niche unities of which every living system now living is a present case. When this process of reproduction stops happening in any given lineage, the lineage becomes extinct.

« 5 » In other words, the result of all this is that all living systems living now occur in sensory, operational and relational ecological coherence in the locality of the dynamic molecular architecture of a biosphere that is continuously arising with realization of the network of interrelated ecological organism-niche unities that they spontaneously integrate while they realize their living. That is, we human beings, as living systems, exist today as a spontaneous result of the history of transformation of a biosphere that begun as a molecular architecture integrated and conserved in the uninterrupted realization of living system that arose spontaneously as discrete molecular autopoietic systems with the ecological medium that made them possible millions of years ago.

Third

« 6 » Living in reflective conversations is our human cultural manner of living together; and living in language in reflective conversation is our particular ecological niche. Language is a manner of living in recursive co-ordinations of inner feelings, of doings and of emotions, in reflexive conversation. And living in recursive co-ordinations of inner feelings, doings and emotions is our manner of making distinctions in our living that constitute the entities, processes and relations of the cosmos that arises as we explain the coherences of what we do and of what happens to us in our living with the coherences of the realization of our living. Notions such as purpose, aim, intentions, adaptation, adequacy, progress, thoughts, reflections, etc. belong to what we do as we recursively co-ordinate our inner feelings and emotions as we operate in the recursive co-ordinations of our feelings, doings and relations as they arise in the course of our reflexive conversations as we coordinate our doings – thoughts, desires, fears, concerns, explanations as well as the doings that we do as we live them.

« 7 » None of the notions that we use as we reflect about the happening of what we do in our conversations as we describe the orientation of our reflections or our doings apply to what occurs in the spontaneous realization of the dynamic molecular architecture of the biosphere. As we use our reflective notions as if they applied to the processes of the molecular architecture of the realization of living systems in the biosphere, particularly if we use

them metaphorically, we confuse operational and conceptual domains in a manner that interferes with our understanding of the worlds that we generate as we explain the coherences of our living with the coherences of our living, obscuring our understanding of our own living in reflective conversations. And when that happens, we lose sight of how we are responsible as conscious human beings for the worlds that we generate in the dynamic architecture of the biosphere that we integrate with all the sensory, operational and relational dimensions that arise with our living as we are in reflective conversations.

Fourth

« 8 » I appreciate the references and use that the authors make of my work, which I consider they do in a very adequate way, and I agree with them in their fundamental conclusions. Now I would like to add the following reflection. Perhaps the expression “experience” is too anthropomorphic in itself because it entails an implicit act of abstracting a configuration of feelings as some kind of psychological entity about which we can talk as something that occurs independently of our distinguishing it. In our conversations, my colleague Ximena Dávila Yáñez and I have come to the conclusion that in our human case, when we speak of an experience, we always refer to something that we distinguish that happened or is happening to us in our living (Maturana & Dávila 2015). For example, walking is not lived as an experience unless we refer to it in our reflections: an experience in our human living is something that we are aware is happening or did happen to us. In the present development of robotics, with the design of many automatic systems that have inner sensors to accommodate to the changing circumstances in which they are made to operate, imitating what happens with living systems, would we say that they have experiences like we do? Would we compare what we think is happening in them with their inner sensors guiding their movements with what is happening in an animal searching for its food?

« 9 » A living being exists as an organism in dynamic sensory coherence with the circumstances in which it lives as a result of the never-interrupted evolutionary history of transformation of the biosphere that arose as the ecological niche of the first or-

ganisms in the origin of living systems near four thousand million years ago. As a result of the continued operational, relational and sensory coherence of the living systems with the molecular architecture of the biosphere since its origin, every organism appears as if it operated with a purpose in the ecological medium in which it happens to live in sensory, operational and relational coherence as a result of such evolutionary history. Similarly, a robotic system appears to act with a purpose in the medium in which it operates as the result of a human design, but there is no purpose in its operation.

« 10 » I think that the target article is very valuable because it opens a reflective space in relation to how to understand the increasing evolutionary complexity of the inner sensors and operational abilities of the organisms that has resulted in the social living that constituted the space in which our living in language arose with the arising of our humanness and of our awareness that we are responsible of the worlds that we generate together. Ximena Dávila and I think that we human beings are a spontaneous result of an evolutionary history. This history is guided by the conservation of the well-being of living together in the intimacy of coordinating the doings of the daily chores that created a loving relational space. It is this space in which arose our manner of living in conversations in which we

- can reflect about our origin,
- have ethical concerns,
- are aware that we are not the product of some mysterious design,
- feel responsible for what we do and do not do, and
- think, that this is very wonderful.

Humberto Maturana Romesín showed that living beings are molecular autopoietic systems, and that language as a biological phenomenon occurs as a flow of living together in co-ordinations of co-ordinations of consensual behaviors; and cognition as a biological phenomenon occurs when an organism operates adequately to the circumstances of its living, conserving its autopoiesis as a consequence of the operational-relational coherences with its niche that are proper to it in the present of its living as a feature of the history of the evolutionary structural drift to which it belongs.

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