Sense-making with a little help from my friends:
Introducing Ezequiel Di Paolo and Hanne De Jaegher

Tom Froese
Departamento de Ciencias de la Computación, Instituto de Investigaciones en Matemáticas Aplicadas y en Sistemas, Centro de Ciencias de la Complejidad, Universidad Nacional Autónoma de México
t.froese[]gmail.com

Abstract

The work of Ezequiel Di Paolo and Hanne De Jaegher has helped to transform the enactive approach from relative obscurity into a hotly debated contender for the future science of social cognition and cognitive science more generally. In this short introduction I situate their contributions in what I see as important aspects of the bigger picture that is motivating and inspiring them as well as the rest of this young community. In particular, I sketch some of the social issues that go beyond mere academic debate, including how the methods and assumptions that inform orthodox cognitive science are intrinsically related to the critical state of affairs in our world today. I conclude with some personal recollections in order to give an idea of the context in which their ideas, and mine as well, came to fruition.

Keywords: enactive approach; cognitive science; social cognition; theory of mind.

I am glad that *Avant* has provided a platform for Ezequiel Di Paolo and Hanne De Jaegher, a pair of avant-garde scientists and philosophers, to air their views in the open format of an interview. Their articles are already consistently pushing the boundaries of accepted conventional wisdom within the confines of the rigid etiquettes, rules and regulations of academic publishing. But in this interview we are given the rare opportunity to hear from them more directly and personally, and we get a sense that their published output so far is only the visible tip of a deep iceberg that, like life itself, still remains to be more fully explored. There are surely still many additional ideas and surprises to be revealed that will help us to finally overturn the doomed neuro-computationalist dogma. And the sooner, the better. The most celebrated insights of current scientific thinking about what we human beings essentially are, namely, that we are nothing but selfish, genetically pre-programmed zombies, passive robots, and/or disembodied brain-minds, have already been causing damage for far too long. It's time to stop that grotesque and inhuman masquerade! There are more convincing scientific alternatives.

But the work of Ezequiel and Hanne is not just about unmasking the hubris of computationalism. Clearly, there is more at stake in their work than contesting the next big ideas in science and philosophy. And here is why: It simply cannot be denied that the subject of cognitive science (i.e. the scientific observer, usually a psychologist) and the object of cognitive science (the so-called 'subject' or, to use the politically correct term, the 'participant', who is usually a psychologist, too) are one and the same: *a human being*. Accordingly, scientific claims about life, mind and sociality cannot be divorced from how we find ourselves to be right now, and how we wish ourselves to be in the future. The human condition is not a static given; it is an open-ended process of becoming that we shape and enact with our choices and actions.

These are, therefore, not merely academic issues confined to the ivory tower; they have direct implications for politics, for personal responsibility, and for how we can and should live our existences. Despite what orthodox science dictates, the personal and professional aspect of our lives cannot be lived independently from each other. The standard practice of ignoring the evidence of one's own first-person perspective, especially when the very topic of one's professional study is the personal-level of human existence, is irresponsible and ethically indefensible. Why should our findings be considered more objective when we aim to exclude the only genuine access to the personal-level that we have, namely our own lived existence as human beings? We all know from our own personal lives that there is more to people than what is revealed by recordings of internal physiological data and measurements of external movement patterns. And given the polarity of current public debate, it needs to be pointed out that this rejection of scientific reductionist approaches to our own first-person perspective does not entail a commitment to some kind of religious totalitarianism. Whatever happened to simply acknowledging our personal existence in the here and now?

Consequently, if we want to reject scientific and religious dogma, it is also up to everyone to show in his or her own life that the mainstream theories are wrong. For example, as Ezequiel correctly points out, the individualist-computationalist paradigm is only more or less valid as long asmost of us choose to continue the social game of being 'perfect consumers' of preformed products and information. Every time we behave like a mere reactive robot, we give tacit support to the computational theory of mind, which, as the dominant paradigm in science, in turn influences the way in which we think it is possible to behave. And to some extent this unsatisfactory state of affairs is methodologically enforced in the lab. As every psychologist knows very well, those 'participants' who do not follow the given instructions of the experiment are excluded from the results and do not appear in the final analysis. The unpredictability and uncontrollability of genuine human autonomy are excluded by society and science as madness and noise, respectively. Functionalism selectively filters the facts of our existence. What we need instead is a practice and theory of mind that takes the open-enedness of human autonomy as its starting point, and as its ultimate point of return.

But the issues go even deeper than that. Because even if we happened to believe what mainstream science tries to convince us of, namely that we are isolated and independent brain-minds, we can only make sense of this belief in the context of a shared

world. Our living body, other persons and the environment are always already present before we choose to ignore them. This blindness to its own range of dependencies, whether they are biological, social, or ecological, is what makes the modernist episteme so toxic and deadly to a human future on this planet, like a cancer that is unwittingly committing suicide by blindly consuming its host organism. However, this failure of methodological individualism is not meant to imply a return to some form of totalitarian socialism. Ezequiel and Hanne are careful to emphasize that they do not want to reduce the individual to the social, or vice versa. Their stated aim is to move beyond that kind of linear-reductionist way of thinking altogether. Indeed, to think that the negation of one position must necessarily entail acceptance of its logical opposite is precisely to remain stuck in a linear mode of thinking. Why not try to change the terms of the debate altogether? Accordingly, one of the main tasks for the enactive approach is to create new conceptual tools for better grasping the complex interdependencies between life, mind and sociality, including our own intimate personal experience as well as genuine human autonomy. From this alternative perspective we can also understand why Ezequiel and Hanne's preferred point of departure is to explore this complex network of interdependent processes by focusing on the level of autonomous dynamics emerging out of social interaction between two or more people. "Participatory sense-making" offers a middle way, an intermediate level of analysis, between the two extremes of individualism and socialism.

Let me conclude this introduction with some personal recollections. I first came across initial formulations of this enactive approach by reading Ezequiel's papers on agent-based models of communication and social interaction, while I was still a student in the Department of Cybernetics at the University of Reading. It was that work which convinced me that I should do my PhD at the University of Sussex, where Ezequiel was lecturing at the time. When I arrived there at the end of 2004, I was fortunate to end up in the same research center as Hanne, who was just finishing her dissertation on autism and participatory sense-making. I still remember my 6 years at Sussex fondly. There were many creative people with various kinds of backgrounds and interests interacting in a mutually inspiring manner, and lots of free-spirited ideas were floating around the lab. Some of these were discussed more publicly in the Life and Mind seminars and can still be found online at our blog[47]. In the following interview Hanne nicely describes this kind of style of research as a "horizontal" interaction, rather than the usual dominance hierarchies that stand in the way of genuine collaboration. Horizontal interaction enables collective emergence of creativity.

In this collaborative spirit Ezequiel agreed to become my doctoral supervisor, and this turned out to be a highly productive relationship. We have been working on many projects together to push the enactive approach forward. In particular, we made a series of agent-based models, which demonstrated the enabling and constraining effects of social interaction dynamics on the behavior of individual agents. In 2008, together with Hanne, and Steve Torrance, we organized a workshop with the theme of participatory sense-making, which turned out to be a great participatory success. But even before then I was convinced that Ezequiel and Hanne's "Participatory sense-

---

[47] *http://lifeandmind.wordpress.com*

making" paper had hit the jackpot. I remember philosophizing with Ezequiel at one of the many get-togethers in a small bar in Brighton. I had just finished reading a draft of their paper, and I said that they had a citation classic on their hands. Ezequiel was also optimistic, but observed that the jury was still out. Now, 5 years later, and Ezequiel and Hanne's modesty notwithstanding, that particular paper has turned into one of the most hotly debated articles of the enactive approach. Moreover, that paper has managed to achieve what most other contributions to this approach have so far failed to accomplish: it has started a mutual dialog with mainstream researchers of social cognition. Now that we have this small opening of attention, it is up to enactivists everywhere to keep up the good work and to make sure that we live up to our own expectations, both personally and professionally.