

The Perils of “Open Science”: How Radical and How Many?

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> Upshot • I ask exactly how “open” we should be in “opening up cognitive science” and how many scientists should embrace the radical openness Martiny advocates. I suggest that the most fruitful realization of Martiny’s vision would consist in the creation of research groups with a balance between scholars of singular disciplines and transdisciplinary cognitive scientists.

« 1 » Kristian Martiny’s article aims to “revitalize Varela’s radical proposal as a way to continue the conversation of how to open up the cognitive sciences” (§64). This aim is consistent with Martiny’s overall argument, which I endorse a long stretch of the way.

« 2 » The aim is consistent with Martiny’s argument insofar as it is exhortative rather than analytic. That is to say, though it does avail an *understanding* of Francisco Varela’s work, it first and foremost encourages us to *do* something, namely to do cognitive science in a different way. Again, this is in line with “the performative view” (Petitmengin & Bitbol 2009), which, in Martiny’s case, I take to be that it is insufficient for our science to merely understand something, but that it must be directed at helping something or someone (§§45f).

« 3 » It should come as no surprise that I endorse Martiny’s exhortation. Together, Martiny and I, with extensive help primarily from Susanne Ravn and Dorothee Le-grand, but also from Dan Zahavi and Shaun Gallagher, developed what we called the “phenomenological interview” (Høffding & Martiny 2016), one of the open science methods Martiny uses. Martiny, however, has gone further than most in opening up cognitive science. It is rare for a researcher trained in phenomenology and philosophy of mind to engage in interview methodologies, devise interventions for people with cerebral palsy (CP), help in the design of

sculptures that reflect the world of living with CP, stage grand theatre performances, and advise on and take part in documentary films (*Natural Disorder*).

« 4 » Martiny claims that research inspired by Varela so far has not been as radical as he would have wanted it (§65). His own research practice of “opening up cognitive science” is supposedly in line with Varela’s radical hopes.

« 5 » In this commentary, I want to ask two questions about the feasibility of Martiny’s radical, open science.

Q1: Just how open should open science strive to be?

Q2: How many scientists should conduct open science?

« 6 » As for Q1, we can identify several kinds of openness in Martiny’s article:

Methodological openness: being open to other disciplines and opening the lab with its ecological constraints to life and art (§§25–27, 55).

Theoretical openness: Conducting research whose hypotheses are falsifiable (§1).

Democratic openness: Being open to the public and communicating one’s research in ways that are understood and appreciated by the general public (§§10, 45).

Experiential openness: Allowing lived experience to enter research facilities. Reflection and expression as an opening of pre-reflective experience (§52).

« 7 » To reiterate, openness here is not merely a theoretical disposition but a pragmatic attitude. But can we take this too far and become “too open”? The classical example would be that of the anthropologist who, wishing to “fully” understand an indigenous tribe, “goes native” and never comes back to the world of research to share her results. Openness must be balanced with other academic virtues. For instance, in the context of a phenomenological interview, the interviewer must exactly *not* identify herself with the interviewee, but retain a respectful and analytic distance in order to lift her posterior analysis – what we have called “tier two” (Høffding & Martiny 2016: 557) – from the specific and contextual to the general and universal.

« 8 » In spite of the radicality proposed, however, I do not think Martiny advocates complete openness or getting as close to experience as possible. Rather, it is in the interplay, when sufficiently playful I might add, between the first-, second- and third-person perspective, that new knowledge can emerge. An example of such a constructive tension between the three perspectives can be found in a past ERC project, TESIS,¹ drawing on enactivism (Ezequiel Di Paolo & Hanne De Jaegher), phenomenology (Zahavi & Gallagher), developmental psychology (Vasudevy Reddy), psychiatry (Thomas Fuchs), and neuroscience (Vittorio Gallese). In such collaboration the three perspectives are instantiated by different people working together. But Martiny wants to go further: the individual researcher must be able to embody all three herself. This leads us to the second question.

« 9 » How many researchers are supposed to open themselves to such a degree as to master the techniques and theories of all three perspectives? (Q2) Evidently, such a venture is incredibly demanding. In this light, my second question mirrors Martiny’s own, namely: “So, why have the cognitive science community neglected Varela’s radical proposal of embodying cognition?” (§21). I do not think Martiny gives a clear answer to this himself, so here is a suggestion, based on my own work trying to bridge the gap between first- and second-person methods: *It is too demanding!*

« 10 » It is demanding because it presupposes leaving the realm of one’s practiced methodology and venturing into a new territory. This takes time, effort and compromise. For a philosopher of mind, for instance, it takes time to learn the methods of interviewing, to find the right people to interview, to perform the interviews, and to transcribe and analyze them. Doing all of this only gets her back to the usual theoretical starting point of philosophy of mind, namely that of finding interesting theories, data or experiments to criticize and develop philosophically (with a very important difference, of course, that it is now the philosopher herself who has

1 | See <https://tesisnetwork.wordpress.com/network>

generated the empirical material on which to do the relevant theory building). It takes effort to start again as a beginner who performs badly at the outset, to confront colleagues in her home field who disapprove of her approach or scholars in the field she has ventured into who reproach her for not being thorough enough. And it takes compromise, because the knowledge developed in an interview is different from that found in a book or an article. From a philosopher's perspective it could be said that working with dynamic, malleable and contextual knowledge upsets every fiber in one's theoretical body, because it differs from the epistemology of the true vs. the false, the logical vs. the arbitrary, and the well-argued vs. the unfounded. It takes hard work and long argumentations (and requires a kind of second *epoché*) to integrate these two sources of knowledge.

« 11 » But even if demanding, Martiny's work shows that following Varela's radical proposal is worth the effort. He has provided an understanding of what it is like to live with CP and because of his transdisciplinary and radical openness, he has designed interventions and established art forums that improve the conditions for those living with CP.

« 12 » Besides the demanding nature of the endeavor, there is another risk for Martiny's radical openness, as it potentially comes at the expense of monodisciplinary rigor. It is not possible to perform interviews, design interventions and experiments with people with CP, and master the whole corpus of phenomenological writings. In order to do good transdisciplinary work, one must work with, and be trained by, researchers who fully master their own disciplines. It can be argued that Martiny's work, as well as my own with expert musicians, could not have been done well without mentoring from excellent phenomenologists such as Zahavi and Søren Overgaard.

« 13 » What can we conclude from all of this? Firstly, Martiny's radical proposal consists in researchers individually coming to master techniques and theories from first-, second- and third-person methodologies, and who employ their research "performatively," i.e., to benefit those they work with and society at large. Secondly, Martiny argues that more people should conduct

their work in this way. I believe there are certain indications that things are moving in this general direction,² but I do not think all researchers in cognitive science should become so radically open, as this could jeopardize monodisciplinary rigor. The practical solution to find this balance could be the construction of cognitive science research centers, where some members of the research community would work in accordance with Martiny's suggestion. Yet they would collaborate with others with a monodisciplinary background. An open exchange between two such groups would be of mutual benefit and ensure radically open, yet theoretically and methodologically rigorous research.

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2| Going to conferences such as the recent "HerbstAkademie" at the University of Heidelberg on "Embodied Aesthetics," <http://www.upd.unibe.ch/research/symposien/HA19>, I find an increasing number of young scholars who from the perspective of neuropsychology are trying to bridge into phenomenology and inversely of philosophers of mind trying to embrace second-person methods.

The Reflective Science of Ethnography and Its Role in Pragmatic Design

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> **Upshot** • Analyses of the epistemological premises of modern ethnography suggest that "opening up" cognitive science is problematic, caught between a theoretically impossible "translation" of another world view or culture and reverting to an autobiography. Rather, an ethnography might be viewed as a "poetic" expression of interpersonal experiences, whose writing is a new experience contributing to ongoing conversations with ethical value. In particular, one can adopt an instrumental perspective in which an ethnography is a tool for engineering design; thus the "opening" is manifest as applied science within a design collaboration.

Introduction

« 1 » Kristian Martiny provides an incisive, constructive analysis of Francisco Varela's proposal to embody and open up cognitive science, illustrated by using the phenomenological interview; he argues for an even more radical reflective method.

« 2 » Martiny's analysis focuses on neuropsychology, following Varela (1996: 347), which specifically addresses the study of consciousness:

“This research programme seeks *articulations* by *mutual constraints* between the field of phenomena revealed by experience and the correlative field of phenomena established by the cognitive sciences.”

« 3 » Martiny's thrust throughout and challenge to the community is to "open up the cognitive sciences" in general, in accord with the broader analysis of *The Embodied Mind* (Varela, Thompson & Rosch 2016) and the subsequent initiatives of Thomas Metzinger and Jennifer Windt (§§2f).

« 4 » In the broader critique of methods in cognitive science, the radical proposal is