

The Embodied Mind: a domain of second-person psychophysical experts

C R E A

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Organized by Rachel Zahn in association with Michel Bitbol



Presentation

Francisco Varela and his colleagues launched a challenge to the entire field of Cognitive Science in 1991 with *The Embodied Mind: Cognitive Science and Human Experience*¹. The aftershocks from that challenge came as a relief for some but were felt as a betrayal of rigorous objective science by others. Twenty years later, the term *embodied mind* is now part of any serious debate about the nature of the mind.

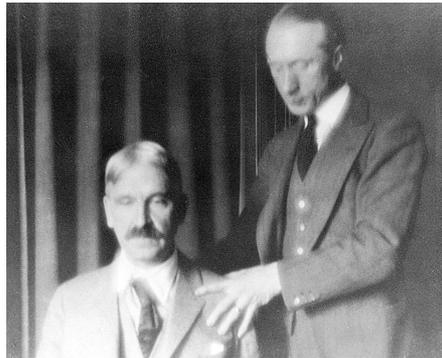
Though the void left after Varela's untimely death in 2001 remains, a multi-disciplinary following responded to his challenge and Varela's *neurophenomenology* continues to give credence to scientists seeking to examine their own first-person experience and to philosophers needing to test their theories of mind with scientifically verifiable methods. However, there is a challenge that has not yet been addressed at its most practical level: Varela's insistence (1999) that a second-person expert in the particular "first-person methodology" being examined is required to mediate between first-person subjects and third-person laboratory scientists to insure accurate interpretation.

This model for a three-day interdisciplinary experimental workshop is a response to Varela's second-person challenge, and we have selected teachers of the Alexander Technique to fill the role of second-person experts. Why choose the second-person expertise of an Alexander Technique (AT) teacher? Essentially because the AT has already entered the *embodied mind* debate. In Varela and Shear's *View from Within*, Carl Ginsburg² referred to F.M. Alexander as the

¹ Varela F., Thompson E., and Rosch E. (1991) *The Embodied Mind: Cognitive Science and Human Experience*. Cambridge, Massachusetts: The MIT Press.

² Ginsburg, C. "Somatic Insight" in Varela F. and Shear J. (eds.) (2000) *The View From Within: First-person approaches to the study of consciousness*. UK: Imprint Academic. p.82.

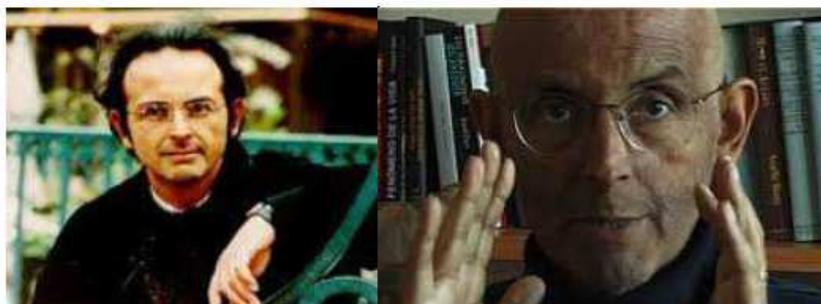
earliest of “a pioneering group of thinker-explorers of the twentieth century who were interested in finding practical ways of furthering human development.” The American philosopher Richard Shusterman³ (2008) was similarly inspired at Collège de France, where he introduced FM Alexander as the father of somatic education and explained the influence of the AT on John Dewey’s philosophy. The Alexander Technique was also the model for psychophysical re-education favored by Sir Charles Sherrington, William James, John Dewey, Raymond Dart, Karl Popper, Nikolass Tinbergen, Benjamin Libet, and by many successful musicians and actors.



John Dewey and FM Alexander (1917)

The AT teacher remains highly focused on his/her own psychophysical practice while stimulating the student’s receptivity to both the philosophy and the praxis with which he/she will develop first-person expertise. The three-years of training necessary to transform the first-person psychophysical expertise into a second-person psychophysical expertise is what differentiates the AT from other somatic education or therapies. The teacher’s first-person consciously lived experience of his/her congruent use determines the success of the lesson. Thus, the AT version of the second-person mediator is a perfect research model for “first-person methodologies”. Ten AT teachers will participate in the experiment from the USA, Scotland, England, Canada, France, Italy, Switzerland, and Denmark. The three-day workshop is designed to provide an opportunity for the teachers to discuss the AT with some of today’s best scholars and researchers, who will interpret what they learn about the AT in the light of the latest neurophysiological discoveries and recent philosophical debate on *conscious embodiment*.

Francisco Varela’s Challenge 1991-2000



“The blind spot in the cognition sciences of the twentieth century is that we do not have a method of properly accessing experience.”⁴

³ Shusterman, R. (September 22, 2008), Collège de France, “Le corps en acte et en conscience” at *Le corps en acte, Colloque A l’occasion de centenaire de la naissance de Maurice Merleau-Ponty (1908-1961)*.

⁴ Varela, F. <http://www.presencing.com/presencing/dol/interviews/Varela-2000.shtml>

The “Hard Problem” in Cognitive Science (Varela 1996) ⁵:

“The nature of “hard” becomes reframed in two senses: (1) it is hard work to train and stabilize a new method to explore experience, (2) it is hard to change habits of science in order for it to accept that new tools are needed for the transformation of what it means to conduct research on mind and for training of the next generations.”.

“...experience in human practices is the privileged entry point for *change* mediated by professional interventions of all kinds, such as education and learning, sports training, and psychotherapy. In all these domains there is abundant evidence not only that the realm of experience is essential for human activity and life involving the use of one’s mind, but that the experiential domain can be explored, as we see in transformations mediated by specific practices and human interactions in prescribed settings (training course, sports coaching, psychotherapeutic sessions).” (p. 4)

... Second-person

“The establishment of a method then requires the creation of a means to go beyond these difficulties. Again, each tradition has come up with different means, and they vary substantially. All of them, however, share a common discovery, namely, that in any case the progress in becoming familiar with a particular method requires mediation. By mediation we mean here another person(s) who provides a curious intermediate position between first and second position, whence the name *second-person* position. A mediator is eccentric to the lived experience...but nevertheless takes a position of one who has been there to some degree, and thus provides hints and further training.” (p 8)

Invited Research Participants

Michel Bitbol (confirmed) is a Senior Researcher at CNRS and CREA, École Polytechnique. He holds a Doctorate of Medicine, a Ph.D in Physics, and a Habilitation in Philosophy. His research interests are the history and philosophy of physics in the twentieth century. He studied in particular the intellectual process of Erwin Schrodinger, and formulated a neo-kantian interpretation of quantum mechanics. His research also includes the relations between the philosophy of physics and the philosophy of mind (having worked in close collaboration with Francisco Varela). Currently, he focuses on the issue of Emergence, the status of consciousness, and the epistemology of first-person knowledge. **Paris**

Rachel Zahn (confirmed) is an American psychophysical specialist with more than 40 years of experience as a trainer, psychotherapist and coach. She specializes in the psychophysical process of 'high performance' training for actors, musicians, athletes, and original thinkers (including the rehabilitation from physical and psychological trauma). In parallel, she began her early studies in Cognitive Science with Margaret Mead, R.D. Laing, Milton Erickson, and Humberto Maturana in the United States. Her French research actually began as a result of an invitation from the singer Barbara Hendricks to participate in a peace mission to Dubrovnik on behalf of the French government. Once in France, she sought out Maturana's co-author, Francisco Varela, and soon after discovered Michel Bitbol's course at the Sorbonne. At Michel's suggestion, she later entered the University of Paris 1 and is now completing a Doctoral thesis under his supervision: *Psychophysical Practice and the Mind-Body Problem: a first- and second-person perspective*. **Paris.**

⁵ Varela F. and Shear J. (Eds.) (1996) ‘Neurophenomenology: A methodological remedy for the hard problem’. In *Journal of Consciousness Studies: Special Issues on the Hard Problems*. 3, 4, June 1996, 330-344.

Amy Cohen Varela (confirmed) is a clinical psychologist and psychoanalyst. She is the author of *One Idea: On the Path of F.J. Varela* and *Conclusion: "Opening"*. She is an active member of the Mind and Life Institute. **Paris.** (see: <http://www.mindandlife.org/about/mind-life-international/>)

Shaun Gallagher (confirmed) holds the Chair of Excellence in Philosophy at the University of Memphis, Research Professor of Philosophy and Cognitive Science at the University of Hertfordshire, UK, Honorary Professor of Philosophy at the University of Copenhagen, and affiliated research faculty member at the Institute of Simulation and Training at the University of Central Florida. He is the author of *Brainstorming; The Phenomenological Mind* (with Dan Zahavi); and *How the Body Shapes the Mind*. **Memphis, Tennessee.** (see <http://www.ummos.org/>).

Jonathan Cole (confirmed) is Honorary Senior Lecturer in Clinical Neurosciences at the University of Southampton and a professor at the University of Bournemouth. He is the author of *Pride and a Daily Marathon* (the story of a man who lost all proprioception), and is the narrator of the BBC television documentary, *The Man Who Lost His Body*. More recent works include *Still Lives: Narratives of Spinal Cord Injury* and *About Face*, which explores accounts of individuals with Mobius Syndrome. **Poole, UK.** (see <http://www.cogric.reading.ac.uk/biographies/Cole%20Jonathan.pdf>).

Alain Berthoz is Honorary Professor at Collège de France where he is Director of the Laboratoire de physiologie de la perception et de l'action (LPPA). He has written *The Brain's Sense of Movement*, *Neurobiology of "Umwelt": How Living Beings Perceive the World*, *Emotion and Reason: The cognitive neuroscience of decision making, the Physiology and Phenomenology of Action* (with Jean-Luc Petit). **Paris.** (see: <http://www.college-de-france.fr/chaieres/chaire8/EN/>)

Massimo Bergamasco (confirmed) is a founder and Professor of Applied Mechanics at the Percro Laboratory, Scuola Superiore S. Anna in Pisa, where he leads the research group on mind sciences. Percro specializes in robotics and brain-computer interface engineering. He is also a co-founder of the Enactive Network. **Pisa, Italy.** (see: <http://www.percro.org/research.html>)

Claire Petimengin (confirmed) is Professor at the Institut National des Télécommunications and is a researcher associated with CREA, École Polytechnique/CNRS. Since her doctoral thesis of 1998 (under the direction of Francisco Varela), her research has focused on pre-reflective lived experience, the methods enabling us to become aware, describe it, and to detect experiential generic structures. She is also interested in the process of mutual guidance and refinement of first-person and third-person analyses in the context of neuro-phenomenological projects. She is the editor and an author of *Ten Years of Viewing from Within: The Legacy of Francisco Varela*. **Paris.** (see: <http://claire.petimengin.free.fr/topic/index.html>).

Jean-Luc Petit is a professor-researcher associated with the Laboratory of Physiology of the Perception of Action, Collège de France. He is co-author with Alain Berthoz of *the Physiology and Phenomenology of Action* (see: <http://jlpetit.chez.com/>).

Neil Roberts (confirmed) holds the Chair of Medical Physics and Imaging Science at the University of Edinburgh. He is also a teacher of the Alexander Technique. **Edinburgh, UK** (see <http://www.thelearningpartnership.com/prof-neil-roberts-23615-0.html>)

Susan Stuart: (confirmed) is a Senior Lecturer in Philosophy at the University of Glasgow. Her current research interests are focused on developing a notion of pre-theoretical, affective co-engagement which she describes as 'enkinaesthesia'. She intends to develop a neuro-phenomenological enquiry into the nature of the anticipatory affective dynamics which characterises enkinaesthetic engagement. **Glasgow, UK.**
(see <http://www.gla.ac.uk/departments/philosophy/Personnel/susan/>)

Kevan Martin (confirmed) is a Professor of System Neurophysiology and a Director of the Institute of Neuroinformatics, a joint Institute of the University of Zurich and the Swiss Federal Institute of Technology, Zurich, Switzerland.
(see http://www.neuroscience.ethz.ch/research/neural_basis/Martin).

Daniel N. Stern is a prominent psychiatrist and psychoanalytic theorist, specializing in infant development, on which he has written a number of books - most notably *The Interpersonal World of the Infant* (1985). He is well known as an expert researcher of early affective mother-child bonding. Daniel N. Stern is an honorary professor in Psychology at the University of Geneva.
(see http://en.wikipedia.org/wiki/Daniel_Stern_%28psychologist%29).

Roger Russell (confirmed): is Educational Director of the *Feldenkrais®* Zentrum Heidelberg. He is a specialist in the Proprioceptive Intelligence in Children. His research interests are in understanding the scientific knowledge behind the psychophysical methodologies. **Heidelberg, Germany.**

Guenter Edlinger is the co-founder of G.tec Guger Technologies OEG in Graz, Austria. This company specializes in leading edge brain computer interface technology for biomedical application. He focuses his research on robotics for the handicapped and the future of home environment control. **Graz, Austria.** (See: <http://www.newscientist.com/article/mg21128195.200-control-your-home-with-thoughtalone.html>)

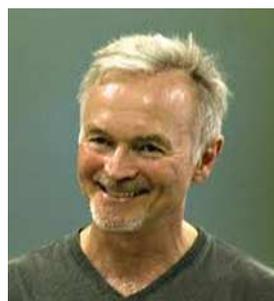
2nd person psychophysical experts in The F.M. Alexander Technique



Giora Pinkas: is the Founder and Director of the Alexander Technique Teachers Training Program, Alexander Educational Center, Walnut Creek, California.

He is a Guest-teacher and training consultant at teacher training programs in Israel, Basel, Freiburg, Berlin, Hamburg, Heidelberg, Vienna, Galway, and Budapest.

Walnut Creek, California.



John Nicholls: has directed Alexander teacher training programs in Melbourne, Australia, in Brighton, England, and now in New York. He has held the Chair of the Society of Teachers of the Alexander Technique (STAT) in the UK.

He is the recent Founder and Director of the Alexander Technique Teacher Training Program, Alexander Technique-NYC

New York, USA

Program

All participants, researchers and AT teachers will be sent a preparatory dossier with the program, biographies and published articles of each participant, a briefing note on the history, philosophy and practice of the Alexander Technique, pertinent features of anatomy, a DVD on the research of participants (ex: Jonathan Cole: BBC Special: *The Man Who Lost His Body*), and a form on which to write down a research question that would be useful for the group to answer.

This three-day investigation in first-, second- and third-person methodologies will be interactive. During the investigation participants will be invited to serve in the different roles: first-person (AT student), second-person (instructor), and third-person (objective observer). Participants may decline any invitation at any time. Each participant will be asked to contribute a written commentary or evaluation of the experiment for the proceedings of *The Embodied Mind: a domain of second- person psychophysical experts*. In order to see AT movement patterns which are often so subtle as to seem invisible, the interactive experiment will be filmed for documentary, research and archival purposes. Each participant may direct the cameraman to focus on a particular interest and replay will be available. Each participant will have the right of consent or refusal to use their image in the final editing of the film. The final version will be archived in the private collection of the French INA for researchers.

Saturday, February 25, 2012

9:00-9:30 Welcome “Petit Déjeuner”

(Technical preparation)

9:30-10:15 **Michel Bitbol and Amy Cohen Varela:** Introduction to Francisco Varela’s CREA.

10:15-10:45 **Rachel Zahn:** Background to the experiment.

10:45-11:45 Introduction to research group and AT trainers phase I with research questions.

11:45-12:00 Coffee Break

12:00-12:30 Introduction to research group phase II with research questions.

12:30-12:45 Introduction of AT teachers (trainees).

12:45-13:15 **Rachel Zahn:** the Alexander Technique first- and second- person philosophy.

13:15-14:30 Lunch served at CREA

14:30-15:00 Break-out discussion groups I.

15:00-15:15 **John Nicholls** AT definitions of qualities of intention.

15:15-16:00 **Giora Pinkas** AT first-person practice: awareness, spatial orientation compared with everyday the “norm” that we take for granted: simple distinctions.

16:00-16:20 Group discussion

16:20-16:45 Coffee Break

16:45-17:15 **Giora Pinkas and John Nicholls** will introduce AT second-person student and teacher practices. Concepts: “End-gaining” and Buber’s “I-thou”.

17:15-17:45 Break-out discussion group II.

17:45-18:00 Questions and answers.

To be decided (Host suggestions, transport care and technical security)

Sunday February 26, 2012

9:00-9:30 “Petit Déjeuner”

10:00-10:45 Roger Russell (invited speaker) “Proprioceptive intelligence of children”

10:45-11:15 Giora Pinkas and John Nicholls: proprioception and the AT.

11:15-11:45 Researchers and AT teachers set up an experiment with cameras. Comparison of cognitive task via first- and second-person student positions.

11:45-12:00 Coffee Break

12:00-12:30 Break-out discussion groups decide questions and suggestions

12:30-13:00 Break-out groups put questions to appropriate persons

13:00-14:15 Lunch served at CREA

14:15-15:00 The deeper implications of AT philosophy and practice

15:00-15:15 Questions and answers.

15:00-15:15 Break-out discussion groups: implications for embodied education

15:15-15:30 Break-out groups put questions to appropriate persons

15:30-15:45 Evaluation of our psychophysical states.

16:00-16:30 Experiment: Cognitive process with and without AT second-person intervention.

16:30-17:00 Coffee Break

17:00-17:30 Group discussion: researchers and AT teachers consider definitions: *embodied*, *disembodied* or *re-embodied mind*?

17:30-18:00 Researchers refine their experiment with AT teachers and cameras

18:00-18:15 Break-out discussion groups: *embodied* or *re-embodied mind*?

18:15-18:45 Group discussion.

18:45-19:00 Summary of where we are and definition of group goals for Monday

20:00 Group dinner? How many? Where? Host recommendations.

Monday, February 27, 2012

Psychophysical Congruence as a livable, thinkable and psycho-emotional practice

9:30-10:00 “Petit Déjeuner”

10:00-10:30 Confirmation of group goals for the last day

Suggested plan:

10:30-11:30 Training methods for second-person position. Half of the research group (volunteers) will experience first- and second-person positions; half will remain in the third-person observer position

11:30-11:45 Second half of the research group (volunteers) will experience first- and second-person positions and the previous volunteers return to third-person observer positions

11:45-12:00 Group discussion: definitions of *experience* first-, second- and third person positions.

12:00-12:15 Coffee Break

12:15-12:30 Training methods for second-person psychophysical expertise: half research group (volunteers) will experience the second-person trainee position; half of the research group will remain in the third-person observer position

12:30-12:45 Second half of the research group (volunteers) will experience the second-person trainee position and the previous volunteers will return to the third-person observer position

12:45-1:15 Evaluation of our psychophysical states. Discussion of the second-person trainee experience and questions: How can you use what you have learned?

Monday continued:

13:15-2:15 Lunch served at CREA

14:15-15:00 Group discussion: What would you want to do if we had a seven-day residential workshop with access to laboratories?

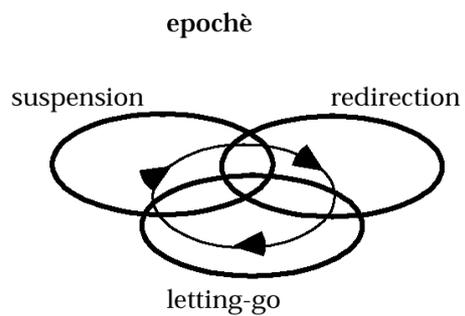
15:00-16:00 AT lessons (for those who wish to have them)

16:00-16:15 Evaluation of psychophysical states

16:15-17:30 Where can we go from here? Request for written proceedings

17:30-18:00 Brief reminder of first-, second- and third-person practice position

Acknowledgements and thank you



(2000) Depraz N., Varela F, Vermersch, P.