Toward a Phenomenological Pragmatics of Enactive Perception

Tom Froese and Adam Spiers

CSRP 593

November 2007

ISSN 1350-3162



Cognitive Science Research Papers

1. Introduction

The enactive approach to perception, which holds that perception consists in perceptually guided action, was first proposed by Varela and colleagues in the early 1990s as an important contribution to the embodied-embedded and dynamicist movement in the cognitive sciences (e.g. Varela, Thompson & Rosch 1991). Since its inception it has inspired a range of related approaches such as the sensorimotor contingencies approach (O'Regan & Noë 2001), Noë's (2004) enactive approach to perception, and the dynamic sensorimotor hypothesis (Hurley & Noë 2003). While there are certainly important differences between them (cf. Thompson 2005), we will refer to these approaches as "enactive" to the extent that their overall concern "is not to determine how some perceiver-independent world is to be recovered; it is, rather, to determine the common principles or lawful linkages between sensory and motor systems that explain how action can be perceptually guided in a perceiver-dependent world" (Varela, Thompson & Rosch 1991, p. 173).

One important source of evidence supporting this enactive approach to perception is the data generated by experiments with subjects who have mastered the skillful use of a "sensory 3

2003)? Or is it, perhaps, the constitution of an entirely new perceptual modality (e.g. Lenay *et al.* 2003)?

The arguments are generally based on two sources of evidence: (i) the experimenter's descriptions of the *abilities* of the subjects who master the skillful use of the apparatus (e.g. to explore their environment while avoiding obstacles), and (ii) the experimenter's descriptions of the *verbal reports* which the subjects provide of their experience. Since both of these sources provide third-person data, this debate about the character of a subject's experience is consistent with one popular third-person approach to the scientific study of conscious experience, namely Dennett's *heterophenomenology* (cf. Dennett 2003; Dennett 1991).

1.2 Outline of the paper

In this context the aim of this paper is twofold: (i) to argue that the current debate in the literature provides a good example of why such a purely third-person approach is not sufficient to achieve clarity on these kinds of first-person issues, and (ii) that in order to promote a *phenomenological pragmatics* (cf. Depraz, Varela & Vermersch 2003; Varela 1997; Varela & Shear 1999) of enactive perception, namely a research program which goes beyond a purely third-person approach in a principled manner, PS devices need to be standardized and made readily available to the general research community.

Accordingly, the current third-person approach to the phenomenology of TVSS use is critically reviewed (section 2), the development of a first-person approach is motivated

Block (2003), on the other hand, argues that "there is doubt as to whether the phenomenology of TVSS is exclusively visual" and that "perhaps TVSS is a case of spatial perception via tactile sensation". Similarly, Prinz (2006) seriously doubts whether subjects experience anything visual: "My best guess is that prosthetic vision devices simple allow subjects to make automatic inferences about where objects are located in space as a result of tactile information". Again, it appears that the published reports are not sufficient to settle this issue.

So far the problem of determining the qualitative nature of the experience associated with TVSS use has been limited to the interpretation of descriptions of behavioral or physiological data and verbal reports, and evidently without much success. Can this issue be resolved by these sources of evidence? This would seem to be the hope for anyone advocating a purely third-person approach to a science of human consciousness such as heterophenomenology. However, even if it is assumed that such an approach can be made internally consistent, an assumption which will be questioned below in section 2.2, there remains a practical problem. It is all too easy to be content with simple textual interpretation when the principled analysis of first-person experience is not assigned any explicit role (Varela 1997).

This seems to be the case in the current debate about the phenomenology of TVSS use, where a scientific investigation has slowly been turned into an open-ended debate about mere interpretations of interpretations. Indeed, there is no evidence that any of those involved in the debate have had experience with a TVSS themselves. In this respect Prinz (2006) has to be commended for at least making this issue explicit. He openly discloses that he has not used Bach-y-Rita's apparatus himself, and therefore admits being forced to venture a "best guess" on what its use could be like. It is doubtful that a consistently third-person approach could ever go beyond postulating such educated guesses while at the same time remaining true to its foundational principles.

2.2 The third-person approach presupposes first-person data

Is a purely heterophenomenological approach even possible in the first place? It has been pointed out by Gallagher (1997) that any such third-person study of consciousness is not entirely free of phenomenological elements. We similarly claim that such studies are implicitly based on the first-person experience of the investigator herself in two fundamental ways: (i) first-person experience *in general* is presupposed by any (theoretical) activity, and (ii) first-person experience of the *particular* experiential phenomenon being investigated is presupposed by any meaningful interpretation of the third-person data.

Presupposition (i) is basically a reformulation of the irreducibility of consciousness as the necessary background which frames all of our activities (Varela, Thompson & Rosch 1991, p. 9-12). In this context it means that rejecting the existence of first-person experience in the researcher outright makes any attempt to understand first-person experience intrinsically self-refuting. It eliminates that which affords the possibility of the attempt itself – the authentic nature of awareness and purpose. Moreover, even if the investigator were such a hypothetical disembodied and purely rational intellect she could only (if it all) wonder why the objects under study make certain sound patterns and move in a particular way. It is because of *our own* first-person experience of being conscious subjects that it is possible for us to even conceive of investigating how other subjects undergo a certain experience and pick out the relevant third-person data. For a more detailed argument along these lines see Jonas (1966, pp. 127-134).

- Depraz, N., Varela, F.J. & Vermersch, P. (2003), On Becoming Aware: A pragmatics of experiencing, The Netherlands, Amsterdam: John Benjamins Publishing Co
- Gallagher, S. (1997), "Mutual enlightenment: Recent phenomenology in cognitive science", *Journal of Consciousness Studies*, **4**(3), pp. 195-214
- Heidegger, M. (1927), *Being and Time*, trans. by: J. Macquarrie & E. Robinson, Oxford, UK: Blackwell Publishing Ltd., 1962
- Hurley, S. & Noë, A. (2003), "Neural Plasticity and Consciousness", *Biology and Philosophy*, **18**, pp. 131-168
- Jonas, H. (1966), *The Phenomenon of Life: Toward a Philosophical Biology*, Evanston, Illinois: Northwestern University Press, 2001
- Lenay, C., Gapenne, O., Hanneton, S., Marque, C. & Genouëlle, C. (2003), "Sensory Substitution: Limits and Perspectives", in Y. Hatwell *et al.* (eds.), *Touching for Knowing: Cognitive psychology for haptic manual perception*, Amsterdam, The Netherlands: John Benjamins, pp. 275-292
- Noë, A. (2004), Action in Perception, Cambridge, MA: The MIT Press
- O'Regan, J.K. & Noë, A. (2001), "A sensorimotor account of vision and visual consciousness", *Behavioral and Brain Sciences*, **24**(5), pp. 939-1031
- Petitmengin, C. (2006), "Describing one's subjective experience in the second person: An interview method for the science of consciousness", *Phenomenology and the Cognitive Sciences*, **5**(3-4), pp. 229-269
- Prinz, J. (2006), "Putting the Brakes on Enactive Perception", Psyche, 12(1), pp. 1-19
- Spiers, A. (2004), "A Tactile Navigational Aid for Visually Impaired People", Unpublished B.Sc. Thesis, Department of Cybernetics, University of Reading, UK
- Spiers, A. & Harwin, W. (2004), "The Haptic Torch: A Torch for the Blind", Int. Conf. on Disability, Virtual Reality and Assistive Technology, June 2004, Oxford, UK
- Thompson, E. (2005), "Sensorimotor subjectivity and the enactive approach to experience", *Phenomenology and the Cognitive Sciences*, **4**(4), pp. 407-427
- Varela, F.J. (1997), "The Naturalization of Phenomenology as the Transcendence of Nature: Searching for generative mutual constraints", *Alter: Revue de Phénoménologie*, 5, pp. 355-381
- Varela, F.J. & Shear, J. (1999), 'First-person Methodologies: What, Why, How?', Journal of Consciousness Studies, 6(2-3), pp. 1-14
- Varela, F.J, Thompson, E. & Rosch, E. (1991), *The Embodied Mind: Cognitive Science and Human Experience*, Cambridge, MA: The MIT Press