

Review of Sabine Koch, Thomas Fuchs, Michela Summa, and Cornelia Müller (Eds.) (2012).

“Body memory, Metaphor and Movement”. Amsterdam: John Benjamins.

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How the fingers fly over the keyboard while I just think of the idea I want to convey, how I drive home without even noticing the passing intersections and turns, how rising the eyes to the sky and adopting an upright posture make me feel optimistic, are all phenomena that fall under the heading of “body memory”, which is the focus of this book. The book is the result of an interdisciplinary collaboration between phenomenologists, cognitive scientists, and therapists, and aims to explore the concept of body memory, its scientific usefulness, and its possible therapeutical applications.

The book is organized in three sections. The first section (six chapters) contains contributions from phenomenology, a field of philosophy that emphasizes the use of a subjective, experiential perspective to explore how individuals apprehend the world and make sense of it. The second section (nine chapters) includes contributions from the cognitive sciences, ranging from psychology to anthropology and neuroscience. Part three comprises 11 chapters written by practicing therapists involved with approaches that emphasize the use of the body as part of the healing process. All this content is wrapped up by a general introductory chapter and a final concluding chapter where the contributions of each approach to the overall topic of body memory are summarized.

The book does not leave the reader wanting for insights, although it falls short of the high expectations established in the introductory chapter:

“From phenomenology as well as from movement therapy, there has been some previous writing, thinking, and predefining the topic, not so for the cognitive sciences. A treatise on body memory from the perspective of the cognitive sciences is an innovative jump into a non-existing field” (p. 5).

Body memory turns out to be basically a new name for implicit memory. The study of implicit memory enjoys a long tradition in the cognitive sciences, and the process of automatization of skill and the interplay between conscious attention versus automatic unconscious control in the learning process are well described. Prime examples are studies on the acquisition of arbitrary keypress sequences that follow different kinds of underlying grammars, studies of perceptual

learning, and more generally, studies on the acquisition, perception and production of skills such as spoken, written and typed language. The neuroscience of implicit memory is also well established, as some of the reviews included in the book make clear. So, in itself, the concept is not at all new. However, this new name brings along some interesting twists.

What I find more newsworthy in the concept of body memory is how it forces us to realize the wider implications of implicit memory, as well as the emphasis it places on social interplay and, most importantly, emotion. This is brought up very clearly by phenomenological definitions of body memory:

Different from explicit memory, implicit body memory does not represent the past by means of an act of recollection. Through body memory, rather, the past impacts the subject's present and future, it is enacted in his/her performances, and it informs the unfolding of the subject's experience without him/her being explicitly aware of this process [...] Body memory [...] entails the totality of acquired perceptual and behavioral subjective dispositions. (Summa, chapter 2, p. 23).

The consequences of this reenactive memory for our understanding of the whole individual are further illustrated by the types of body memory distinguished by Fuchs (chapters 1 and final): 1) *procedural memory* (all kinds of well-practiced habits, both motor and perceptual); 2) *situational memory* (perceptual and motor habits linked to whole situations, leading to a sort of atmospheric impression); 3) *intercorporeal memory* (habits linked to the interaction, coordination, and communication with others, many of them acquired very early in life through interactions with caretakers); 4) *incorporative memory* (habits adopted from others by means of imitation and identification, which underlie feelings of social inclusion and identity); 5) *pain memory* (habits linked to painful situations, generating avoidance tendencies); and 6) *traumatic memory* (habits inscribed in memory by extremely traumatic experiences such as abuse, rape or torture, which often are denied and even forgotten at an explicit level).

The view of the individual that emanates from current studies of implicit memory in the

cognitive sciences is that of a skilled person who, through extended practice, has been able to significantly extend her potential. In comparison, the concept of body memory makes evident that implicit memory underlies the most basic aspects of our personality, identity, self, social behavior, and the emotional colouring of our experiences. Implicit memory is essential in all aspects of the psychological functioning (and malfunctioning) of the individual, and this is emphasized by the concept of body memory. This idea is a welcome addition to the cognitive sciences.

The link between implicit memory and emotion is made even clearer by the connections to clinical work that abound throughout the book, and to which the third section is dedicated. The potential of body memory for therapeutic applications lies in the fact that explicit and implicit memories often dissociate in people that go through traumatic experiences. In extreme cases, the conscious mind may be disconnected from reality and the situation can be experienced in a depersonalized way. The situation may not even be accessible to conscious recollection later on. However, the experience leaves a strong imprint in implicit memory systems. In a high proportion of cases, those developing post-traumatic stress disorder (PTSD), the traumatic experience recurs uncontrollably and overwhelmingly, without warning. As the original memory was stored mostly at an implicit level, the retrieval cues are also of the same nature (e.g., a particular smell, movement or posture) and the person may find it difficult to identify them and exert conscious control over the raised memories.

The concept of body memory emphasizes the clinical potential of implicit cues, mainly based on motion, to activate those encysted memories and bring them to conscious awareness, where they can be worked out as part of the therapeutic process. Most clinical chapters in this book are written by experienced therapists who have been applying some form of body-based therapy (dance therapy, Authentic Movement, etc.) in their work with patients suffering from stress disorders, but also other pathologies. They illustrate personal cases, strategies for organizing and managing clinical sessions, and share the therapists' and patients' intuitions about the dynamics of their healing processes. The overall underlying idea is that explicit and implicit memories have

different dynamics. Against received approaches that focus mainly on helping the patient to build a verbal narrative of her problems, body memory approaches maintain that problems that lie within the domain of implicit memory should be treated by working directly with the body. Very interestingly, the way the body expresses its internal conflicts often takes the form of image schemas and conceptual metaphors. For example, during an improvised performance a patient decided to make room for herself and, instead of circling a closed space with a rope, placed several objects around it, leaving empty spaces between them. Metaphorically, it is argued, she was showing how she saw her body as a broken container where she could not feel safe and protected from external threats.

The present book suffers from a manifest lack of integration of the different approaches. In spite of claims to the contrary and the efforts of integration made by the editors in the introductory and closing chapters, the different chapters make hardly any effort to connect with the vocabulary, concerns, and methods of the research traditions that are presented in other chapters. An even more important caveat, however, concerns the excessive reliance on methodologies that do not provide a firm ground for the proposed ideas. The empirical basis of the great majority of chapters in the book is just the subjective impressions of the author (sometimes also of the patients). Those impressions are only backed up by consistency with other authors who are considered authorities in the field, but who in turn do not offer a more solid empirical grounding. There are some chapters in the book that are good examples of a scientifically sound way to proceed, with assertions firmly founded on well-controlled empirical observations (those by Bermeitinger & Kiefer, Jung & Sparenberg, Suitner et al, and Michalak et al, are the clearest cases), but the book as a whole is far from this ideal.

Moreover, some chapters which do present empirical studies suffer from important methodological flaws which turn them difficult or downright impossible to interpret. One example is the chapter by Kolter et al, who undertake an analysis of the expression of metaphors in gesture and speech. The analysis is based on the concept of activation of metaphoricity. Under this

framework, a conceptual metaphor (such as positive mood is up) is considered to have low activation when it only manifests in gesture (up and down vertical movements), a middle level of activation when it also appears in speech (“life goes up and down”), and a maximum level of activation when there are also metacommments on the gestures themselves (“it only goes from up to down, only I’ve just noticed”). I know of no independent evidence supporting this theoretical background, but it is an interesting hypothesis to test. The authors set to test it by videotaping 35 participants, but then analyze the gestures and speech of only one of them. (No indication is given as to how or why this participant was selected for analysis). Moreover, participants were explicitly instructed to first improvise aspects of their lives in silence during 10 minutes, then select one aspect of their movement sequence and repeat it several times, still in silence, and finally, repeat the movement sequence again and verbalize about it. Not surprisingly, they observe a progressive activation of metaphoricity in the gestures and speech of their only participant, such that up-down gestures were made with no accompanying speech at the beginning of the session and multimodal gesture-speech complexes appear toward the end. The authors themselves accept that the results could be an artefact of the instructions, but this does not refrain them from interpreting their results as support for the idea of activation of metaphoricity.

Overall, this book provides a welcome expansion on the implications of implicit memory for our view of the individual. It also constitutes a much needed attempt at connecting basic cognitive science and applied clinical work. However, its chapters often left me quite frustrated because of the methodological limitations that I have discussed above. If the expanded view of the individual that is afforded by the concept of body memory is to be accepted as a suitable object of scientific inquiry (and therefore as an integral part of cognitive science), it will have to stand on firmer ground.