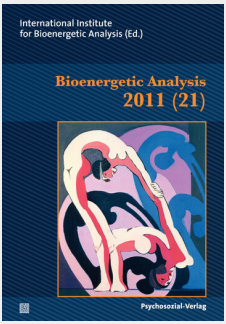
Margit Koemeda-Lutz

Book Review of: Mirror Neurons and Body Psychotherapy



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Mirror Neurons and Body Psychotherapy

Margit Koemeda-Lutz

The second book by Bauer that fascinated me was "Warum ich fühle, was du fühlst – Intuitive Kommunikation und das Geheimnis der Spiegelneurone" (Why I feel what you feel – intuitive communication and the mystery of mirror neurons; transl. M.K.). It was published in 2005.

It answers questions like, why do we intuitively understand what others feel and why can we empathize with others' joys and sorrows?

Bauer elaborates on the far reaching consequences of Rizzolatti's and coworker's discovery of the mirror neurons in the premotor area of the cortex (1996, 2001, 2002, 2003) One of the decisive starting points was the observation that people unconsciously react to gestures and imitate facial expressions while in communication with each other. They also focus their attention on the same objects (joint attention). Moods, feelings and body postures seem to be contagious. Moreover, when we observe another person we can to a certain degree intuitively predict some of his/her consecutive actions, an ability which can be life saving in dangerous situations. From a glance at another person we can tell his/her feelings, wishes and intentions.

Action plans are represented in the premotor area of the cortex. Here, evoked potentials can be traced, 100–200 ms before motor neurons that innervate our muscles actually fire.

Bauer reports on the experiments that Rizzolatti et al. conducted to find out that action plans are represented in these premotor areas of our brains. These experiments also demonstrated that these same neurons also fired when a monkey only watched another monkey execute one such action (e.g. grasped a coconut). This proved that resonance does have a neurobiological basis. Mirror neurons involuntarily simulate what others do while we watch them (including the subjective perspective of what this feels like).

Sometimes the observation of only a fragment of a whole action pattern is sufficient to convey an anticipation of what the other person is about to do (p. 31 Umiltá et al. 2001). This is not only true for actions but also for feeling and thinking patterns.

Intuition needs to be supplemented by rational analysis (which is

slow). Fear, stress and tension significantly reduce the signal ratio of our mirror neurons.

By observing others we acquire potential action patterns (software for action). If compatible motivations are added, a person will act.

From our third year in life till about 16 years inhibiting factors prevent individuals to imitate everything they observe. But resonating mirror neurons increase the readiness to act.

Behavior is connected to needs. While planning motor behaviour, humans most of the time try to anticipate the consequences of such behaviour. Proprioceptive simulations help with this by furnishing input to the sensoric cortex.

In the inferior parietal cortex we generate sensoric images. In the insula, general body sensations, especially of our inner organs (e.g. feelings of disgust) are represented. Mirror neurons in the Gyrus Cinguli are nerve cells for empathy and compassion (p. 49).

On the basis of such neuroscientific findings, Bauer delineates a functional model for empathy: 1) The primary visual cortex is part of the occipital lobe; starting from this area optical impressions are composed to perceived pictures; 2) In the Sulcus temporalis inferior (STS) which is part of the temporal lobe, behaviour of an observed person is interpreted; 3) the premotor cortex in the frontal lobe contains representations of complex behavioural motor patterns and 4) the inferior part of the parietal lobe contains representations of how it feels to behave as planned in 3). **Mirror neurons have been found in 2), 3) and 4).**

Mirror neurons use neurobiological mechanisms of the observer to simulate what happens in the observed person. They are the neurobiological basis for intuitive, spontaneous comprehension and the basis of what we call the Theory of Mind (TOM).

The right hemisphere stores sensations that belong to and are to be expected in interpersonal situations. As soon as the person becomes active the LH also gets activated.

Mirror neurons are the neuronal basis of a superindividual, intuitively accessible, shared realm of comprehension (p. 106).

Social attention and attunement increases the release of neurotransmitters and hormones (opiods, dopamine, oxytocin). Receiving a minimum of resonance is a crucial biological need.

Infants exposed to long lasting deficits in caregiving and attunement will exhibit an increased sensitivity in their stress genes (p. 107).

Empathy is learned behaviour (i.e. it is a skill that requires training). And there is healing power in mirroring and empathic reactions by therapists to the patients' narratives about trauma, neglect or abuse.

Unfortunately, Bauer (see pp. 140ff.) does not seem to know much about body psychotherapeutic modalities. Maybe a new and fermenting dialogue can begin at the San Diego conference in 2011.

Margit Koemeda-Lutz: "Intelligente Emotionalität" (Intelligent Emotionality)

Angela Klopstech

For a number of years, I have made the case that the viability of Bioenergetic Analysis – definitely in the sense of survival but also in the sense of thriving – will require that it more fully attempts to enter the mainstream with its attendant opportunities and dangers, albeit without loosing its roots and core. Among other things, this means re-evaluation of old and integration of new concepts. It particularly means casting a curious eye on the research from contemporary neuroscience and its effect on the understanding of the world of human emotions while maintaining the essence of the bioenergetic understanding of emotions. In her recently published book "Intelligente Emotionalität", which is not primarily intended for professionals, but for a broad readership, Margit Koemeda, the past editor and current co-editor of this journal, straddles this divide gracefully and competently. Unfortunately, at this point in time, the book is only available in German. The appropriate English translation would be "Intelligent Emotionality", and it can only be hoped that an English translation will be on the market soon.

Margit Koemeda is known within the bioenergetic community as a faculty member, board member of the scientific committee, and as a writer and editor. In her home country of Switzerland, beyond the boundaries of her own bioenergetic society, she is intensely involved