

Schizophrenia and intersubjectivity.
An embodied and enactive approach to psychopathology and
psychotherapy

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Abstract:

Current phenomenological approaches consider schizophrenia as a fundamental disturbance of the embodied self, or a *disembodiment*. This includes (1) a weakening of the basic sense of self, (2) a disruption of implicit bodily functioning, and (3) a disconnection from the intercorporeality with others. As a result of this disembodiment, the pre-reflective, practical immersion of the self in the shared world is lost. Instead, the relationship of self and world is in constant need of being reconstructed by deliberate efforts, leading to the growing perplexity and hyperreflexive ruminations that are found in schizophrenia patients. The paper distinguishes different levels of self-experience and relates them to the psychopathology of schizophrenia, taking particularly into account disturbances of self-awareness, perception, action, and intersubjectivity. On this background, psychotherapeutic approaches based on body awareness and movement techniques are outlined that are suited to foster self-management and enable patients to re-establish a more stable and coherent sense of self.

Key words: schizophrenia – disembodiment – self-coherence – intersubjectivity – self-management

Introduction

Schizophrenia is a mental disorder that calls the mineness of one's own sensations, thoughts and actions into question and threatens the person with a loss of self. In order to understand this illness in its essence, an approach based on phenomenological psychopathology is therefore indispensable. Conversely, disorders of the self in schizophrenia should be of crucial interest for any philosophy of subjectivity in order to test its concepts of self-awareness, personhood and intersubjectivity by reference to empirical phenomena.

Contemporary neurobiological concepts of schizophrenia predominantly emphasize the importance of impaired integration of somatosensory inputs into stable central-nervous representations ("disconnectivity syndrome"), resulting from a complex interplay of genetic and environmental factors. Current neuropsychological theories similarly attribute the core disturbances in schizophrenia to higher order cognitive processes such as "Theory of Mind" or "meta-representation" (Frith 1992, 2004; Brüne 2005). According to these concepts, impaired self-referential processes result in disturbances of self-awareness and a general loss of familiarity with self and others, leading further to an impaired sense of agency, disturbed mentalizing processes and cognitive decline.

Insert Figure 1 in here:

Figure 1: Contemporary neuropsychology of schizophrenia

In contrast, phenomenological approaches locate the main disorder in schizophrenia on a lower level, regarding it as a fundamental disturbance of the embodied self, or a *disembodiment disorder*. The pre-reflective, practical immersion of the self in the world normally mediated by the body is impaired or lost. This results in functional psychopathology that includes (1) a weakening of the basic, pre-reflective sense of self, (2) a disruption of implicit bodily functioning in the dimensions of perception and action, and (3) disturbances of the intercorporeality with others, with subsequent disconnection from the social environment.

In the last decades, phenomenological psychopathology has contributed subtle analyses of the pre-reflective self- and world-experience, which is fundamentally altered in schizophrenia often already many years before the onset of acute psychosis (Blankenburg 1971, Sass u. Parnas 2003, Stanghellini 2004, Fuchs 2000, 2005a, Röhrich & Priebe 2004, Röhrich 2011). From this point of view, it is not the so-called productive symptoms of the acute phase (i.e. delusions and hallucinations) which are crucial for understanding the illness, but rather the insidious erosion of bodily self-awareness, perception and action which may often date back even to the patients' early childhood.

Research focusing on body awareness has shown that patients suffering from schizophrenia often display a range of abnormal bodily sensations (see e.g. Fisher 1970, 1986, Kolb 1975, Röhrich & Priebe 1996, 1997, Priebe & Röhrich 2001, Jenkins & Röhrich 2007). The most frequently described findings are:

- qualitatively unusual, abnormal bodily sensations (cenesthesias)
- desomatization/depersonalization corresponding to boundary loss, subjectively experienced as fear of body disintegration, and resulting in reconstructive behavioural efforts (e.g. mirror exposure, compulsive rituals)
- loss of control over one's own body (i.e. somatic passivity phenomena)
- body schema centralisation: distorted size perception of peripheral body parts (underestimation of lower extremities connected with the feeling as if the body is unusually small)
- stereotypical movements with repetitive self-contact, self-stimulation through clapping hands or tapping body parts against objects (Du Bois 1990; Joraschky 1983).

Subjectively, patients often describe these disintegrative processes as difficulties of differentiating between self and non-self aspects, typically using phrases such as: „I am losing it“, „I

have this fear of disappearing“, or „there is just no me any more“. This alienation of the self often results in existential fear accompanied by a range of unpleasant bodily sensations, emotions and thoughts. The patients display behaviours described as negative symptoms such as social and emotional withdrawal from the world but also from aspects of their own bodily self.

In order to describe this fundamental alteration of experience adequately, a differentiation of the concept of the self is first required that is particularly capable of grasping the pre-reflective strata of experience. On this basis, we will then give an overview on the concept of schizophrenia as a disorder of basic self-awareness (“ipseity”) and disembodiment, with a special emphasis on the intersubjective dimension and the supportive empirical evidence available to date. On this background, body-oriented psychotherapeutic approaches are outlined that are suited to foster self-management and enable patients to re-establish a more stable and coherent sense of self.

Self and self-awareness

Referring to the concepts currently discussed in phenomenology, developmental psychology and cognitive neuroscience, we may distinguish the *basic, pre-reflective or core self* from the *extended, reflective or personal self* (Damasio 1999, Gallagher 2000, Rochat 2004, Zahavi 2005).

(a) Basic or bodily self

The basic self is characterized by an implicit, pre-reflective self-awareness that is present in every experience without requiring introspection. Thus, any sensation, perception or action directed towards an object implies a tacit self-awareness; it is given immediately, non-inferentially as mine. This first-personal givenness of all experience may also be called ‘mineness’ or *ipseity* (from the Latin *ipse* = ‘self’ or ‘himself’; Sartre 1943, Henry 2000, Zahavi 1999). Ipseity is even preserved when autobiographical memory is lost, as in amnesia or dementia, or when a long-term sense for the future is missing, as in certain frontal brain damages.

On the other hand, the basic self should not be conceived as an abstract, disengaged ego, but as involving the dimensions of *self-affection*, *embodiment* and *intercorporeality*. Ipseity is bound to the background feeling of the body, mediated by proprioceptive and kin-aesthetic awareness, and implies a basic auto-affection which could also be called the feeling of being alive (Fuchs 2012b). Moreover, it involves the sensory-motor relation to the world mediated through the body with its habitual or implicit capacities. By being embodied and thus structurally coupled with a complementary environment, the basic self becomes an “ecological self” (Neisser 1988). It is embedded into its *lived space* and *world* that presents itself as a field of possibilities, affordances, barriers or obstacles (Fuchs 2007).

Looking at the developmental aspect, these dimensions of embodied self-awareness date back very early in life. Whereas the ecological self is formed in the early interactions with the environment in general, a basic *intercorporeal self* develops in the interactions with others in the first months after birth. Newborns are already able to imitate facial expressions of others, that means, they experience the other’s body as akin to their own. This enables a bodily resonance with others, particularly with the mother, which soon develops further into shared affective states, emotional attunement or *interaffectivity*. The infant acquires an implicit knowledge of how to interact with others, to share one’s joy, elicit the other’s attention, avoid overstimulation etc. Thus, intercorporeality and self-awareness are closely connected, constituting an additional, social dimension of the basic self.

(b) Extended, reflective or personal self

Primary self-awareness does not arise from self-reflection or from a social attribution; it is always already given with any experience, dating back into prenatal life and further developing in the first year of life. The *extended or personal self* begins to shape in the second year of life. It is based on a number of emerging capacities that are closely interrelated:

- the capacity for a higher-order awareness of one's own conscious states, i.e. *introspective or reflective self-consciousness*;
- the capacity to understand others as intentional agents and to take their perspective, i.e. *self-transcendence*;
- the capacity to understand and issue verbal reports about one's own or others' feelings, thoughts and intentions, i.e. *narrativity*;
- the capacity to form a conceptual and autobiographical knowledge of oneself, i.e. a *self-concept*.

The extended self is constituted through the ongoing relation to others, as the 'social self' or 'me', which includes seeing oneself 'in others' eyes', internalizing their attitudes toward oneself and gradually adopting the roles offered by the community. Taking the perspective of others implies a shift from ego-centric to allo-centric space and a concept of oneself and others as intentional agents. Despite this complex and dialectical structure, the extended self always remains based on pre-reflective self-awareness: Only a being with the constant sense of mineness is able "to form concepts about herself, consider her own aims, ideals, and aspirations as her own, construct stories about herself, and plan and execute actions for which she will take responsibility" (Gallagher & Zahavi 2005). Disturbances of basic self-awareness are therefore bound to affect the extended self as well. Both dimensions of self-experience have to be constituted by a complex interaction of biological, psychological and social processes. Hence, the coherence of the self is a constant achievement of self-constitution and self-affirmation – an achievement that may be disturbed in manifold ways.

On this basis, let us now turn back to the specific issues relevant for schizophrenia.

Schizophrenia as a disorder of the embodied self

We are now going to investigate in more detail how the disturbance of the self in schizophrenia manifests itself within the domains of basic self-awareness, perception, action and intercorporeality. Its overall phenomenological presentation can be regarded as a connection of disembodiment and subsequent ego-disintegration (Scharfetter 1995, Röhrich 2000, 2011).

Insert Figure 2 in here:

Figure 2: Disembodiment in schizophrenia

Disembodiment of self-awareness

According to the concept mainly developed by Sass and Parnas, schizophrenia involves a diminishment of basic self-affection or *ipseity*, that means, a "decline in the fundamental sense of existing as a subject of awareness and action" (Sass & Parnas 2003, cf. also Parnas 2003). This draws on Minkowski's (1927) concept of schizophrenia as implying essentially a *loss of vital contact with reality*. Patients describe a feeling of a pervasive inner void or lack of presence; it may also be expressed in complaints about a certain opacity of consciousness (feeling like "in a fog" or "surrounded by invisible walls"), an alienation of one's body or a general existential feeling of being foreign to the world. This disturbance of pre-reflexive self-awareness permeates all areas of experience:

"I constantly have to ask myself who I actually am. It is hard to explain ... most of the time I have this very strange thing: I watch myself closely, like how am I doing now and where are the 'parts' ... I think about that so much that I cannot do anything else.

It is not easy when you change from day to day. As if you were a totally different person all of a sudden” (de Haan and Fuchs 2010, 329).

In vain, the patient tries to banish his existential fear of losing himself by constantly observing himself, resulting in what Sass has called hyperreflexivity (Sass 2000). The loss of basic self-awareness may also manifest itself in a vague suspiciousness, a loss of trust in the reliability of a constant world, or a feeling that “things can no longer be taken for granted”. Patients in these early prodromal stages struggle to cope with the growing alienation of their personal world.

Disorders of the embodied self have been explored in detail by means of extensive, phenomenologically based interviews such as the *Ego Pathology Inventory* (Scharfetter 2005) or the *Examination of Anomalous Self-Experience* (EASE, Parnas et al. 2005). Moreover, in a study on abnormal bodily experiences (ABEs) in first episode schizophrenia, Stanghellini et al. (2012) identified a high percentage of patients who reported ABEs (N=30 or 76.9 % in a group of 39 patients). The authors differentiate two main categories of ABEs, namely “dynamization of bodily boundaries and construction”, and “morbid objectivization/devitalization”. The results can be interpreted in the context of other studies that identified disturbances of body boundaries or ego-demarcation as predictors of poor treatment response in paranoid schizophrenia (Röhrich & Priebe 2004).

Disembodiment of action and perception

The disturbance of basic self-awareness in schizophrenia is accompanied by a loss of sensorimotor coherence, leading to an increasing fragmentation of perceptual and motor schemas, and to a ‘pathological explication’ of the implicit functions of the body. Thus, otherwise tacit sensorimotor processes become available for introspection.

(a) Let us have a look at *action* first. Patients frequently experience a disintegration of habits or automatic performances, a “disautomation”. Instead of simply dressing, driving, walking, etc., they have to prepare and produce each single action deliberately, in a way that could be called a “Cartesian” action of the mind on the body. Thus, the units of meaningful actions are fragmented, resulting in hyperreflexive awareness of normally tacit aspects of everyday behaviour (Sass & Parnas 2003).

“If I do something like going for a drink of water, I’ve to go over each detail - find cup, walk over, turn tap, fill cup, turn tap off, drink it” (Chapman 1966, 239).

“At times, I could do nothing without thinking about it. I could not perform any movement without having to think how I would do it” (excerpt from an EASE interview of a patient with schizophrenia, Heidelberg).

In such cases, the implicit sensorimotor couplings of the body break down and must be replaced by targeted attention and action of the will. The patients no longer manage to carry out a unified arc of action or use their body naturally for this. The tacit “mineness” of one’s own movements is weakened, and the units of meaningful actions are deconstructed. The “disautomation” of action may culminate in a loss of agency, rendering the patients incapable to willfully release an action they intend to perform. As a result, they experience a severe anxiety of a degree and nature that can be best termed an “existential fear” (see below).

(b) In *perception*, the disembodiment manifests in an impaired capacity to recognize familiar patterns or *Gestalten* which in turn leads to an overload of details:

“Everything I see is in bits. You put the picture up bit by bit into your head. ... If I move there’s a next picture that I have to put together again” (McGhie & Chapman 1961).

“He can no longer read at all. He becomes attached to a word, a letter, and does not attend to the meaning of the sentence. He examines whether all the ‘i’s have dots over

them, whether there are accents where needed, whether all the letters have the same form” (Minkowski & Targowla 2001).

In all these cases, the single elements of the perceptual field lose their function as carriers of intentional meaning and stand out separately. With growing alienation of perception, the act of perceiving itself may come to awareness; then the patients are like spectators of their perceptive processes:

“I become aware of my eye watching an object” (Stanghellini 2004, 113).

“I saw everything I did like a film camera” (Sass 1992, 132).

“For me it was as if my eyes were cameras, and my brain was still in my body, but somehow as if my head were enormous, the size of a universe, and I was in the far back and the cameras were at the very front. So extremely far away from the cameras” (de Haan and Fuchs 2010, 329f.).

The perceiving subject gets into a position external to the world; he becomes a homunculus who looks on his own perceptions like pictures. The distortion of perception is also the core of the peculiar experience at the beginning of acute psychosis which Jaspers (1968) described as “delusional mood.” The alienated perception turns the objects into mere appearances or phantoms. There is an artificial, enigmatic and uncanny alteration of the environment, connected with a loss of the overall sense of the meaning of the situation (Fuchs 2005b). At the same time, new, idiosyncratic salencies may emerge, i.e. expressive qualities of the environment, strange features of persons and faces, hypersignificant objects standing out from the background, or bodily sensations developing into abnormal perceptions (cenesthesias).

A final stage is reached when the dissolution of the intentional arcs of perceiving, acting or thinking is so far advanced that the remaining fragments of perception, movement or thought take on a strange, object-like character and appear to be imposed on the patient from the outside:

“I could no longer think the way I wanted to. It was as if one could no longer think oneself, as if one were prevented from thinking oneself. As if the ideas came from outside. . . . I began to wonder am I still that person or am I an exchanged person” (Klosterkötter 1988, 111).

As mentioned above, these experiences are intensely anxiety-provoking, particularly given the partially intact self-reflective abilities, leading to a sense of “I am losing it”, “somebody is taking over”, and finally to the delusion of an alien force trying to destroy the core self. This may lead to further withdrawal of the attentional focus from the external world and body periphery in an attempt to preserve at least core aspects of the self (see above: centralised body schema).

Disembodiment of intercorporeality and loss of ‘common sense’

Considering the intersubjective dimension of schizophrenia, one has to take into account that it is the lived body that conveys the practical knowledge of how to interact with others, how to understand their expressions and actions within the given context of a common situation. Thus, we are involved in a sphere of primary “intercorporeality” (Merleau-Ponty 1960). This tacit or enacted knowledge is also the basis of ‘common sense’: It provides a fluid, automatic and context-sensitive pre-understanding of everyday situations, thus connecting self and others through a basic habituality and familiarity.

If this embodied involvement in the world is disturbed as in schizophrenia, it will result in a fundamental alienation of intersubjectivity: the basic sense of being-with-others in a shared lifeworld gives way to a subtle “loss of natural self-evidence”, as Blankenburg (1971) has described it. Patients report that they feel isolated and detached from others, unable to grasp the natural, everyday meanings of the common world.

“When a child, I used to watch my little cousin in order to understand when it was the right moment to laugh or how they managed to act without thinking of it before ...

It is since I was a child that I try to understand how the others function, and I am therefore forced to play the *little anthropologist*” (Stanghellini 2004, 115).

Thus, the behaviour of others comes to be observed from a distant or 3rd person point of view instead of entering 2nd person embodied interactions. As a result, interpersonal relationships are in constant need of being constructed by deliberate efforts, leading to constant stress in complex social situations and finally to some kind of quasi-autistic withdrawal.

This alienation can also be felt when interacting with the patient, namely in what has been termed *praecox feeling* by the Dutch psychiatrist Rümke (1941/1990). It means the sense of an interpersonal atmosphere of unnaturalness, characterized by a lack of mutuality, responsiveness, or attunement:

“I felt trapped by a peculiar kind of distress, as if, in contact with my patient, something broke within me” (Minkowski 1933).¹

“Even after a very brief mental state examination it becomes clear to the psychiatrist that his [the patient’s] empathy is lacking ... it is impossible to establish contact with his personality as a whole” (Rümke 1941/1990, 336).

In the intercorporeal encounter, the patient’s emotional expressions and verbal utterances do not seem to correspond to each other or to the context (*parathymia*). Bodily movements and expressions are not integrated to form a harmonious whole through which the person could manifest itself. As a result, others will experience the schizophrenic patient more as an object-body than as a lived body, which corresponds to the overall disembodiment of the person with schizophrenia. Thus, Dimic et al. (2010) explored Rümke’s notion on the *praecox feeling* in a clinical study and tested whether patients with schizophrenia and depression differed in their non-verbal behaviour. They found a significant pattern of initial ‘flight’ or avoidance behaviour (i.e. more looking down or away, crouching and freezing) in patients with schizophrenia.

Transitivity

The disturbance of basic self-awareness in schizophrenia does not only affect primary intersubjectivity, but also the higher level of self-other distinction or self-demarcation, resulting in phenomena termed *transitivity* by Bleuler (1911):

„When I look at somebody my own personality is in danger. I am undergoing a transformation and my self is beginning to disappear” (Chapman 1966).

“The others’ gazes get penetrating, and it is as if there was a consciousness of my person emerging around me ... they can read in me like in a book. Then I don’t know who I am any more” (Fuchs 2000, 172).

Such reports show that ‘being conscious of another consciousness’ may threaten the schizophrenia patient with a loss of his self. Once the primary embodied sense of self or *ipseity* is disturbed, then becoming aware of others as being aware of oneself will become precarious: while grasping the other’s perspective, patients are no longer able to maintain their own embodied center.

Normally, every interaction with others implies a continuous oscillation between the central, embodied perspective and a decentered perspective from which I am aware of the other as being aware of me. It is this dialectical tension between two perspectives that the schizophrenic patient cannot maintain anymore. The perspectives of self and other are confused instead of being integrated, resulting in a sense of being invaded and overpowered by the other (see also below ‘existential fear’). Interestingly, in tests with the so-called Rubber Hand Illusion schizophrenia patients experience a stronger illusory shift of their felt bodily sense into the artificial hand, suggesting a more unstable body representation and weakened sense of self (Thakkar et al. 2011). In healthy samples, similar tasks eliciting an illusory shift of sense of self into an alien face have shown that a lack of interoceptive sensitivity for one’s own bodily states results in an increased blurring of self-other boundaries (Tajadura-Jiménez

¹ Quoted in Neeleman’s preface to Rümke 1941/1990, p. 331.

& Tsakiris 2014). The experience of transivism or confusion of perspectives could thus be due to the disembodied sense of self or lack of body-ownership in schizophrenia.

This short-circuit of perspectives may also lead to the experience of thought-broadcasting: All the patient's thoughts are known to others; there is no difference between his mental life and that of others any more. Thus, he is entangled in a disembodied, self-referential and delusional view from the outside (Fuchs 2005b). It is for this reason that the first episode of schizophrenia frequently occurs in situations of social exposure and emotional disclosure, that means, when the affirmation of one's own self against the perspective of the others is at stake: e.g. when leaving the parents' home, starting an intimate relationship or entering working life. In such situations, the patient may lose his embodied perspective and start to feel observed, persecuted and permeated from all sides. Thus we find again the feature of disembodiment, caused by a loss of self in the dialectical process of intersubjective perception. We shall explore this theme also in the context of so-called 'negative symptoms' (see below).

Delusions

Instead of reifying delusion as a 'state in the head' of the patient, an enactive approach regards it as a *disturbance of intersubjectivity*, arising in a social situation that is always constituted by two or more interaction partners.

According to the enactive approach to cognition, organisms do not passively receive information from their environment, which they then translate into internal representations; rather, they constitute or *enact* the world through their sensorimotor interactions with the environment (Varela et al. 1991; Thompson 2005, 2007). For human beings this constitution is not a solitary activity but always means an intersubjective co-creation of meaning. We live in a shared life-world because we continuously create and enact it through our coordinated activities and "participatory sense-making" (De Jaegher & Di Paolo 2007). This applies in particular to the domain of the social world, that means, to the processes of mutual understanding, negotiation of intentions, alignment of perspectives and reciprocal correction of perceptions.

In social interactions, shared meanings are produced by circular processes of action and mutual perception according to the following pattern: a person A makes an utterance, anticipating a certain reaction of his partner B. Now B interprets A's utterance, thus at least implicitly taking A's perspective, and then gives a corresponding reply, anticipating a certain reaction of A. Now it is A's turn to interpret B's reaction, to compare it with his own anticipation, and then to make a second, affirming, modifying or correcting utterance. B compares this with his expectation, now in turn modifies or affirms his own reply, etc. This yields an ongoing *circle* or *spiral of interactions*, leading to shared or participatory sense-making.

It is important to note that there is an *implicit background* to this process which consists of all the common sense assumptions about how an interaction works, what kind of reactions are adequate, what presuppositions may be taken for granted, and the overall view of the world. One most important element of this background, however, is a basic sense of *trust* – the underlying assumption to live in a world with shared values, with mutual expectations and obligations, and with reliable rules of the social game. Following Erikson (1959) and others (Stern 1985, Trevarthen & Logotheti 1989), we may assume that a sense of basic trust and affective attunement normally develops in the first year of life, as a presupposition for being related to and learning from others, thus being socialized into the human community.

However, if there are constraining boundary conditions to the circular interactive processes, then the joint negotiation of meaning will be disturbed and mutual understanding will fail. This is the case in the prodromal stages of psychosis, where the alienation of perception and the loss of familiar significances particularly extend to the social sphere. The faces, the gazes and the behaviour of others become highly ambiguous, and the interactive circles with others are fundamentally disturbed. In the *delusional mood* arising from this ambiguity (Jas-

pers 1968, Fuchs 2005b), the basic trust in others breaks down. For the schizophrenia patient the normally irrelevant background elements of a given situation begin to adopt a meaningful, sinister and threatening character.

Now the patient feels being observed by gazes from the background, being spied at from out of anonymous cars, or secretly tested in well-prepared situations. The co-constitution of a shared world fails and is replaced by the new, idiosyncratic coherence of the delusion. Hence, delusions are not mere products of a deranged brain. For their essence is not a faulty representation of the world, but the failure of co-constituting the world through mutually taking and aligning one's perspectives.

Negative symptoms

In chronic schizophrenia, patients often present with what is commonly referred to as 'negative symptoms' such as emotional and social withdrawal or motor retardation. These patients often display features of an abnormal relation to their own bodies, both in terms of how their bodies move, their actual body experiences and their verbal reflections on this. Consequently, their social behaviour is dominated by attempts at achieving a balance between, on the one hand, a necessary minimum of interaction with others, and on the other hand, a protection of core self-stability in the face of threatening disintegration: patients' movements tend to be slow and lethargic, eye contact and emotional rapport are limited.

Röhrich & Priebe (1996, 1997, Priebe & Röhrich 2001) conducted studies on the phenomenology of body experience in paranoid schizophrenia and identified a specific pattern of body image disturbances as well as a centralized body schema. They found negative symptoms (BPRS-subscale anergia) to be associated with disturbed body size perception. The literature on self-experience in schizophrenia introduced above suggests applying an approach of functional psychopathology while rejecting the positive-negative symptom dichotomy. Replacing the deficit model of psychosis by a systematic description of self-experiences as motives for coping strategies has profound therapeutic implications and is very much in keeping with a recovery model of mental health care (e.g. Warner 2010).

This concept considers symptoms as a range of cognitive and behavioural consequences aimed at 'rescuing' core aspects of a coherent – even though compromised – self at the cost of diminished social interaction. "The observed behaviour of emotional and social withdrawal, psychomotor retardation and reduced affective reactivity (commonly described as the negative syndrome) ... may well be regarded as a dysfunctional coping/response strategy in relation to an otherwise overwhelming, unbearable range of external... and internal ...stressors/stimuli" (Röhrich et al. 2009, 28). In line with these considerations, ethological research (e.g. Troisi et al. 1998; Dimic et al. 2010) has identified a pattern of avoidant behavior, reduced expression and non-synchronicity in schizophrenia as compared to healthy controls. This is relevant for the development of new therapeutic approaches, particularly in the context of research findings indicating that affective states, memories and attitudes can be altered through changes in motor behaviour such as body posture, gestures and facial expression (e.g. Riskind 1984, Cacioppo et al. 1993, Niedenthal et al. 2007). The next section will therefore explore how body-oriented (enactive) intervention strategies can provide meaningful therapeutic answers to the phenomenology of disembodiment and disturbed intercorporeality, hereby contributing to improving self-management skills and capacities.

Insert figure 3 in here:

Figure 3: Subjective perspective: the suffering patient with schizophrenia

From phenomenology to psychotherapy - Fostering embodiment, self-consolidation and self-management through body psychotherapy

In mental health care three models of self-management are usually distinguished:

- Disease management model: putting patients (service users) in direct control of managing their conditions.
- Empowerment model: enabling the patient to cope in problem solving, goal setting, identifying triggers and indicators of deteriorating health and responding to these before relying on clinician-led intervention.
- Recovery model: shifting the focus from treating a condition/illness to enabling people to live with it.

For the purpose of this paper, the emphasis is on empowerment and recovery, outlining a therapeutic approach that diverts from the current predominant model of cognitive-behaviour therapy (CBT), whilst utilizing the above outlined phenomenological insights to develop new perspectives for psychotherapy of schizophrenia (e.g. Perez-Alvarez et al. 2011). In another paper written from a phenomenological perspective, Nelson et al. (2009, p. 283) introduced the argument that “CBT’s emphasis on cognitive reflection and challenging may encourage a core pathological process in these patients (hyper-reflexive awareness)”. They describe therapeutic alternatives that may be more suitable in addressing ipseity disturbance in patients with prodromal psychosis. Similarly, Skodlar et al. (2013) challenge the emphasis on cognitive appraisals in CBT treatment for schizophrenia and suggest developing novel psychotherapeutic strategies that emphasize the affective, experiential and behavioural processes.

Those aspects are central to the intervention strategy in body psychotherapy and self-consolidation: aiming to enable patients to reconstruct a coherent, functioning ego-structure, is the prime objective in body-oriented psychotherapy for schizophrenia patients (Röhricht & Priebe 2006, Röhricht 2009, 2014). Helping patients to anchor their experience in an embodied sense of self and being-with-others, the interventions are predominantly derived from the above described phenomenological analyses but also take into account findings from psychology and neuroscience, such as the close biological and experiential association of movement and emotional experience (Fuchs & Koch 2014). Close anatomical and functional links between the limbic system, particularly the extended amygdala, and the basal ganglia have been identified. Equally, the mirror neuron system appears to be a relevant biological background for the introduction of non-verbal interventions into the treatment of chronic schizophrenia, particularly regarding the impact of nonverbal mimicking for empathic understanding of others. Moreover, touch is known to be a relevant stimulus for Oxytocin secretion (Ishak et al. 2011), with significant positive effects on interpersonal and subjective well-being and attachment (Lee et al. 2009). Physical activity can facilitate and enhance social bonding and grooming through endorphines (Dunbar et al. 2011).

Against this background, body-oriented psychological therapy (BPT) is specifically aimed at addressing the fundamental processes and secondary consequences of disembodiment on social cognition and interaction. Given their non-cognitive nature, negative symptoms (emotional withdrawal, affective blunting and motor retardation) particularly lend themselves to body-oriented interventions that combine sensory awareness techniques and emotional movement stimuli, thus aiming at integrating self-experience across the domains of perception, emotion, cognition and motor action.

The Californian dance therapist Trudi Schoop started to work with hospitalized schizophrenic patients in 1959, and her ‘body-ego technique’ aimed to focus patients’ “attention on body posture and movement, ... body-ego boundaries ... and reality contact” (May et al. 1963). A first clinical trial showed a significant improvement in patients treated with the

technique in regard to affective contact, motility and general functioning (Goertzel et al. 1965). Similarly, an RCT-study of movement and drama therapy versus supportive counselling in chronic schizophrenia achieved a significant improvement of social and motor behaviour in the BPT group (Nitsun et al. 1974). Based on findings of another randomised controlled pilot trial (Röhrich & Priebe 2006), it has been suggested that BPT is both feasible and effective in treating negative symptoms in out-patients with chronic schizophrenia, predominantly those symptoms relevant for expressive, pro-social interactive behaviours. The following themes emerged from another, naturalistic study of BPT in chronic schizophrenia (Röhrich et al. 2009):

- (1) Body and movement: At the beginning of therapy, movements were often observed to be disorganized, uncoordinated, and lacking energy, which changed towards a clearer differentiation of movement (e.g. expansion and contraction in all three dimensions).
- (2) Relationship to props, various activities as well as relationships with others: By the end of the therapy, patients became more positively engaged and began to utilize the playfulness of the interventions related to objects (e.g. balls, and body sculpturing).
- (3) Emotions: The main changes came about as an improved ability to identify, embody and express basic emotions.

Disconnection (disautomated processes, ego-splitting, breakdown in relationships), disintegration (lack of coherence and consistency) and desynchronisation (time, space, rhythm) are at the core of the schizophrenic process. BPT for schizophrenia focuses on such disintegrative tendencies and the features of disembodiment as described above. Its main objectives in chronic schizophrenia are:

1. to reconstruct a basic, coherent and embodied ego-structure, strengthen body-related self-referential processes and hence ipseity (“mine-ness”) as a prerequisite for safe social interaction as well as reality-testing;
2. to widen and deepen the range of emotional responses to environmental stimuli on the basis of enhanced contact with one’s own body;
3. to improve body-boundary and self-other demarcation;
4. to help patients explore a range of expressive and communicative behaviours in order to reduce emotional withdrawal and improve prosocial capabilities and affective modulation.

It is important to bear in mind that the direct reference to the body always constitutes a balancing act for schizophrenia patients. The body as the location of perceptive and affective experience serves not only as the basis of the relationship with the world, but is also the experiential site of conflictual, traumatic and threatening aspects. If this is taken into account, “psychotherapy may serve as a ‘dialogical prosthesis’ to help re-establish the lost connection between bodily feelings (emotions) and interpersonal situations” (Stanghellini & Lysaker 2007, p. 174).

Conclusion

Schizophrenia implies a disembodiment of the self in the sense of losing one’s habitual bodily performance, and with it the pre-reflective, unquestionable being-in-the-world that is mediated by the body. As a result, the relationship of self and world is in constant need of being reconstructed by deliberate efforts, leading to the growing perplexity and hyperreflexive ruminations that are found in schizophrenia patients. Moreover, the disintegration of core aspects of self-awareness results in states of existential fear. Since the sense of self is bound up with the sense of others, disembodiment of self and disturbance of intercorporeality mutually influence each other. Therefore the basic disturbance may also be regarded as a loss of “common sense”, i.e. the tacit knowledge and familiarity guiding the relations and interac-

tions with others. This finally results in disturbances of intersubjectivity on higher levels, reaching their climax in delusions.

The concept of the embodied self allows us to regard the manifold and often heterogeneous symptoms and experiences in schizophrenia from an integrative point of view. It may serve as a paradigm for a psychopathology which considers the relations between the person and the world to be mediated by the lived body on all levels. On that condition, mental illness may no longer be localized within an inner space, be it the psyche or the brain. Malfunctions of the neural system, possibly due to faulty neuronal maturation, certainly play a role in the fundamental disturbances found in schizophrenia. But these malfunctions act only as one of the factors, which contribute to the disturbance of enacting a coherent experience of the world and a shared environment. Mental illness is not just a brain disorder, but an *extended phenomenon*, a disturbance of the patient's lived body, lived space and relationships with others.

Therapeutic efforts should relate to these fundamental disturbances and are therefore preferably designed as body-oriented ego-consolidation strategies, aiming to support patients in their endeavor to develop and maintain their embodied sense of self, their intercorporeality and their quality of life. Such interventions are based on the results from phenomenological and embodiment research pointing to the close intertwining of bodily posture, movement, emotional experience, self-awareness and self-assertiveness. Group therapies are particularly suited to experience one's body in relation to others as well as in demarcation from them, or in other words: intercorporeality may serve as a remedy for the disembodiment in schizophrenia.

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