Part VIII
Pathologies

Phenomenology and Psychopathology

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Introduction

As the systematic project of investigating the structures of subjective experience, phenomenology may also be considered the foundational science for psychopathology. Though it methodically suspends any assumptions about causal explanation, it provides a rich framework for the analysis of subjectivity and its disturbances in mental disorders, thus also leading to testable hypotheses about the underlying neurobiological mechanisms. Whereas the first movement of phenomenological and existential psychiatry – mainly derived from European, particularly German and French sources – came to a certain conclusion in the 1970s (marked by Spiegelberg's synopsis in 1972), the last two decades have seen an international revival of phenomenological psychopathology which also entered into a constructive dialogue with cognitive neuroscience (Parnas and Bovet 1995; Mishara et al. 1998; Fuchs 2002a).

Present phenomenological psychopathology has gained new ground by emphasizing the roots of mental illness in the patients' prereflective experience. Drawing on the advances of phenomenological research in general, it relates psychopathology to the basic structures of consciousness such as self-awareness, embodiment, spatiality, temporality, intentionality, and intersubjectivity. In order to investigate these dimensions, the phenomenologist will start with questions such as:

– What is it like for the patient to be in a certain mental state (e.g. to feel depressed or to hear voices)? What is the personal meaning of that state?[1]

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[1]To take an example mentioned by Stanghellini (2007): What exactly does a patient mean e.g. when he says 'I feel depressed'? – Some patients may use the word 'depressed' to describe themselves as feeling sad and downhearted, discouraged by a setback or another adversity, corresponding to a reactive depression. Others may use it to mean that they feel dull, empty, dysphoric and bored, as is often the case in Borderline patients. Others may denote that they are unable to feel, that they have lost the affective resonance with others, like being petrified – corresponding to the 'feeling of loss of feelings' in endogenous depression. Finally, some patients may try to convey their sense of inner void, lack of inner nucleus or of identity, feelings of being anonymous or non-existent, as occurring in the prodromal phases of schizophrenia..

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- How does the patient experience his or her world? How does he or she express, move, and define space as an embodied subject?
- What is the subject's experience of existential time? Is there a sense of continuity over time, or are there breaks or fadings of self-awareness?
- Does the patient feel effective as an agent in the world, or rather as only being exposed to the world?
- Is there a tendency to take an external perspective to one's body, actions, and self? Do the knowing and the feeling subject coincide or diverge?
- How is the patient's ability to empathize with others, to take their perspective? How does he/she experience his or her relationships?

In this way starting with first-person accounts, phenomenology proceeds to the constitutive processes that build up subjective experience, such as the formation of perceptual meaning, temporal continuity or implicit bodily action. This also allows for the detection of the critical points where the constitution of self and world is vulnerable and open to deviations or derailments. Particularly in psychotic disorders, the subject may lose its ground in the lived body as the ensemble of dispositions and habitualities, its anchoring in temporal continuity and in intersubjective common sense (Stanghellini 2004; Fuchs 2005a). On the other hand, despite the erosion of the constitutional processes, the patients still strive for a coherent world view, though this may only be possible in the form of delusion or autistic withdrawal. Accordingly, the phenomenological psychopathologist also explores the modes by which the patients try to make sense of the basic disturbances and to re-establish some form of coherence.

Phenomenology does not consider subjectivity as an object to be described but as a medium allowing the world to manifest itself. Therefore it aims at grasping not the content or object, but rather the *form and structure* of conscious experience. It is likely that the altered form is, pathogenetically speaking, closer to the biological substrate, whereas content is more contingent or idiosyncratic. However, phenomenology does not consider symptoms of mental illness in isolation, i.e., as disconnected manifestations of localized brain dysfunctions, but in relation to the subject and the whole of consciousness in which these symptoms emerge. Thus, the phenomenological approach creates an *intermediate level* that relates the level of molecular dysfunctions as studied by experimental neuropsychology (e.g. deteriorated working memory, executive control functions, attentional disturbances, etc.) to the molar level of descriptive psychopathology and its nosological syndromes. The micro-dysfunctions may be integrated into a comprehensive account of altered self-experience.

This also applies to the level of diagnosis: Diagnostic entities are seen by phenomenology not as statistically relevant clusterings of symptoms, but rather as certain *typical modes of human experience and existence*, reflected in their invariant phenomenological structures – independent from nosological classification or epidemiological data on comorbidity. What phenomenology is looking for instead are the "psychopathological organizers" that connect the single features, for example, affective depersonalisation in melancholic depression or autism in schizophrenia.

Thus it helps to define mental disorders on the basis of their structural experiential features, linking apparently disconnected phenomena together.

The basic assumption guiding the phenomenological approach is that human subjectivity and intersubjectivity are characterized by an inherently vulnerable structure which may lead to the derailments, alienation and disintegration found in psychopathology. The multiple synthetic processes necessary for constituting the sensory-motor and temporal unity of conscious experience are amenable to a variety of possible disturbances. Moreover, self-alienation as the hallmark of mental illness is prefigured in the dialectical, precarious and unstable condition of the human subject which by being self-conscious relates to itself, but always escapes itself at the same time. This creates a tension or fracture which bears the germ of alienation, and which has to be constantly bridged by the subject's engagement in the world. Existence as self-transcendence is the continuous movement driven by this basic instability, by a self-alienation *in statu nascendi,* as it were, that we have to overcome continuously. As Karl Jaspers put it in his *General Psychopathology*: "For man, his uncompleteness, his openness, his freedom and illimitable possibility itself becomes the cause of illness."[2]

In this chapter, I will consider three aspects of human subjectivity that are particularly vulnerable to disintegration and alienation: (1) embodiment with its basic antagonism of subject-body and object-body, (2) temporality with its antagonism of past- and future-orientation, and (3) intersubjectivity with the complex dialectics of perspective-taking and self-other-distinction. As a framework for these analyses, I will first give a short phenomenological account of self-experience on the basic, pre-reflective and on the extended, reflective or narrative level.

Dimensions of Self-experience

Since all major psychiatric disorders involve a more or less pronounced disturbance of the self in its relation to the world, the phenomenology of self and self-awareness is of essential importance for psychopathology as well. Referring to the concepts currently discussed in phenomenology, developmental psychology and cognitive neuroscience, we may distinguish the *minimal or core self* from the *extended or narrative self* (Damasio 1999; Gallagher 2000a; Rochat 2004; Zahavi 2005).

(1) The *minimal self* is characterized by an implicit, prereflective self-awareness that is present in every experience without requiring introspection. Thus, any sensation, any 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 be regarded as a general medium in which specific modes of experience are articulated. As the most basic form of selfhood, it may also be called 'mineness' or *ipseity* (from the Latin *ipse* = 'self' or 'himself'; Henry 2000; Zahavi 1999). Ipseity is preserved even

[2] "Dem Menschsein ist seine Unfertigkeit, seine Offenheit, seine Freiheit und seine unabschließbare Möglichkeit selber Grund eines Krankseins" (Karl Jaspers, *Allgemeine Psychopathologie*, p. 8).

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 *temporality*. Ipseity or 'mineness' is bound to the background feeling of the body, mediated by proprioceptive and kinaesthetic awareness, and implies a basic self-affectability or auto-affection (Henry 2000). Moreover, it involves the sensory-motor relation to the world mediated through the body with its particular constitution and its habitual background 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 *lived world* which presents itself as a field of possibilities, affordances, barriers or obstacles (Fuchs 2007a). Finally, prereflective self-awareness also implies a basic *temporal continuity* as analyzed by Husserl in his phenomenology of inner time consciousness: The continuous intertwining of succeeding moments by 'retentions' and 'protentions' includes an intrinsic awareness of my ongoing experience *as* mine (see Section on Disturbances of Temporality below). Thus, the phenomenological analysis of the temporal structure of consciousness is capable of accounting for "… self-identity through time, without actually having to posit the self as a separate entity over and above the stream of consciousness" (Gallagher and Zahavi 2005).

(2) The *extended or narrative 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 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 emerges in the course of early socialisation, depending on the acquisition of autobiographical memory, concepts and language. Its fundamental structure is intersubjective and reciprocal: It is constituted through the ongoing relation to others, as the 'social self' or *'me'* conceived by G. H. Mead (1924), 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 who are responsible for their actions. This is not only a cognitive achievement, but gives rise to a number of 'self-reflective emotions' such as shame, embarrassment, feelings of guilt or pride which all depend on the internalized, evaluating 'gaze of the other' (Seidler 2000; Fuchs 2002b). Any narrative only makes sense for a real or an implicit other as well. There is an inner witness in most of our actions and intentions, to whom we

could give an account of what we did, and justify what we are doing. In relating to herself, the person lives immersed in narratives, at the intersection of different stories already begun but not yet completed.

Despite this complex and dialectical structure, the extended self always remains based on prereflective 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 and Zahavi 2005). Disturbances of basic self-awareness are therefore bound to affect the extended self as well. Both dimensions of self-experience, however, are not present a priori, but have to be constituted by a complex interaction of biological, psychological and social processes. The coherence of the self is a constant achievement of self-constitution and self-affirmation – an achievement which may be disturbed in manifold ways.

Disturbances of Embodiment

Corresponding to the levels of basic and extended self-experience, phenomenologists usually distinguish between (a) the body that I prereflectively live as an incarnated subject, i.e. the *subject-body (Leib),* and (b) the physical body that I can perceive or that is perceived by others, the *object-body (Körper)*.[3]

(a) Originally, the body functions in a tacit or implicit way, as the very center and medium of subjective experience. It constitutes the zero-point that permits my perceptual view on the world, while it is itself not perceived; it operates in every action and interaction with others, without requiring explicit attention. This operative intentionality of the body (Merleau-Ponty 1945) is based on the "passive syntheses"[4] of sensory-motor functioning that link elements of perceptions and movements into higher-order schemas or *Gestalten*, thus forming the background texture of the field of experience. In this way, my body represents my situatedness, my perspective as well as my potentiality within the world.[5]

(b) Normally, the body tends to efface itself in our world-directed activity (Leder 1992). However, it appears as an object of conscious attention particularly when it is inadequate for a task to be performed, be it by a lack of capacity, fatigue or illness; and whenever it becomes an object for others to whom I feel exposed. In these cases, the body's performance is made explicit and may often be disturbed. Thus the body has a double or ambiguous experiential status: both as a 'lived body', implicit in one's ongoing experience, and as an explicit, physical or objective body. The subject-body means my openness to a future, my general capacity or potentiality, and constantly surpasses the object-body

[3] See, for example, Husserl (1973, p. 57), Merleau-Ponty (1945), Plessner (1981).

[4] 'Passive synthesis' is the term Husserl used to denote a synthesis that is not brought about by a conscious act but is intrinsic to consciousness itself (Husserl 1966).

[5] The German term '*Befinden*' ('situatedness', 'condition', 'well-' or 'ill-being') aptly denotes the background feeling of the body as well as 'finding oneself in a certain situation'.

which is only present in retrospection, as my body-past. An ongoing oscillation between these two bodily modes constitutes a fluid and hardly noticed foundation of all experiencing. The philosopher Helmut Plessner (1981) coined the term *'excentric position'* to characterise the ambiguous status of the embodied human person between being inside of her body, in the center of her world, and being outside of it, in reflective distance from pure centrality.

A closely related distinction is the one between *body schema* and *body image*. The body schema means a complex interplay of sensory-motor systems (e.g. the visual, vestibular, proprioceptive, kinesthetic system) regulating bodily posture and movement in relation to the environment – in short, the non-conscious performance of the body. The body image, on the other hand, signifies a "system of perceptions, emotional attitudes, and conceptual beliefs that pertain to one's own body" (Gallagher and Vaever 2004, p. 119 2004a, p. 119), or the conscious awareness of one's body. The one corresponds to an *implicit and egocentric*, the other to an *explicit and allocentric* perspective.

On this basis, disturbances of embodiment may be classified

(a) As primarily affecting the *subject-body* or prereflective embodied sense of self
(b) As being related to the *body image or explicit body awareness*

In what follows, I will give an overview on different types of disturbances of embodiment.

Disturbances of the Subject-Body

Schizophrenia as a Disembodiment

Current neuropsychological theories attribute the core disturbances in schizophrenia to higher order cognitive processes such as "theory of mind" and self-monitoring or "meta-representation" (Frith 1992, 2004). In contrast, phenomenological approaches, in accordance with research on basic symptoms by Huber and Klosterkoetter (Gross et al. 1987), locate the essence of the schizophrenic syndrome in disturbances of prereflective self-awareness and embodiment. This includes: (1) a weakening of the basic sense of self or ipseity (Sass and Parnas 2003) and (2) a disruption of implicit bodily functioning in the dimensions of both perception and action. As a result, the prereflective, embodied and practical immersion of the self in the world is fundamentally disturbed.

1. According to the phenomenological theory put forward by Parnas and Sass, schizophrenia involves a diminishment of basic self-awareness, a feeling of a pervasive inner void or lack, and an increasing anonymity and depersonalization of the field of awareness (Parnas and Sass 2001, Sass and Parnas 2003). The loss of vital contact with reality may be expressed in complaints about a certain unclarity or opacity of consciousness ("living like in a fog", "feeling surrounded

by invisible walls"), but also in a general feeling of being alien to the world. Disorders of basic self-awareness have recently come to be explored in detail by means of an extensive, phenomenologically based interview (EASE, Examination of Anomalous Self-Experience, Parnas et al. 2005).

2. The disturbance of ipseity is accompanied by a loss of automatic processing on the level of 'passive syntheses', leading to an increasing fragmentation of perceptual and motor Gestalt schemas, and to a 'pathological explication' of the implicit functions of the body (Sass 2000; Fuchs 2005a). Thus, otherwise tacit sensory-motor processes become available for introspection. I will describe this in more detail.

In *perception*, the dissolution of passive syntheses normally organising the perceptual field manifests in an impaired capacity to recognize familiar patterns or *Gestalten* (Wiggins et al. 1990; Wiggins and Schwartz 2007). Patients often experience an overload of details separated from their situational context, without grasping the scene's overall meaning. With growing alienation, even *the act of perceiving itself* may come to awareness; then the patients are like the spectators of their own perceptive processes.[6] This disembodiment and alienation of perception turns the objects into mere appearances or phantoms; hence the artificial, enigmatic alteration of the environment experienced especially in the early stages of psychosis (Fuchs 2005a). At the same time, new saliencies may emerge, i.e. expressive qualities, strange features of persons and faces, or hypersignificant objects standing out from the incoherent background. Over the course of time, these noncontextualized fragments are reorganized by emerging delusions that provide a new but rigid coherence of the perceptual field by sacrificing some features while preserving others. In experimental studies, schizophrenic patients show an impairment of sensory processing, in particular deficits in the grouping of stimulus elements into coherent object representations; this is reflected in reduced phase synchrony of neural responses (EEG gamma-waves; Uhlhaas and Mishara 2007). Thus, we find a convergence of evidence from phenomenology and experimental research.

A similar alienation concerns bodily functioning in *movement and action*. Schizophrenic patients often speak of a split between their mind and their body, of feeling detached from their lived performance like a machine or a robot. In particular, they may experience a disintegration of habits or automatic practices, 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 a pathological explication and hyperreflexive awareness of normally tacit aspects of everyday behaviour (Sass and Parnas 2003). In advanced stages, the *sense of agency* for one's actions (i.e. the sense that I am the one initiating the movement) may be disrupted, finally leading to delusions of alien control. On the neurological

[6] Thus, a patient reports "I become aware of my eye watching an object" (Stanghellini 2004, p. 113), or "I saw everything I did like a film-camera" (Sass 1992, p. 132).

level, this may be caused by a dysfunction of forward comparator processes in premotor and prefrontal cortices as well as in the supplementary motor area which normally serve as a neuronal 'who' system for distinguishing self-initiated actions from actions observed in others (Georgieff and Jeannerod 1998). However, the *sense of mineness or ownership* for these actions is preserved, since they are experienced as still belonging to one's own body. The sense of ownership probably depends on sensory feedback mechanisms that are intact in schizophrenia (Gallagher 2000b, 2004a).

In sum, schizophrenia implies a disembodiment of the self in the sense of losing one's habitual bodily performance, and with it the prereflective, questionless being-in-the-world that is mediated by the body. The basic disturbance may also be regarded as a loss of "common sense", i.e. the tacit knowledge and familiarity with the world and with others (Polanyi 1967; Blankenburg 2001; Stanghellini 2007). Common sense is the way that past experience implicitly informs our current perceptions and actions. It provides a fluid, automatic and context-sensitive pre-understanding of everyday situations, thus connecting self and world through a basic habituality and familiarity. In schizophrenia, patients experience a "loss of natural self-evidence" (Blankenburg 1971), a lack of tacit attunement to other people and situations. They report feeling isolated and detached, unable to grasp the "natural", everyday meanings of the common world. Thus, 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 schizophrenic patients (Sass 2000).[7]

Melancholic Depression as "Hyperembodiment"

A different disturbance of embodiment is found in melancholic depression. Here, the body loses the fluidity and mobility of a medium and turns into a heavy, solid body which puts up resistance to the subject's intentions and impulses. Its materiality and weight, otherwise suspended in everyday performance, comes to the fore and is experienced as a leaden heaviness, oppression and ridigity (e.g. a feeling of a tyre around the chest, pressure in the head, or as general tightness and anxiety). Thus, instead of giving access to the world, the body stands in the way as an obstacle, separated from its surroundings: The phenomenal space is not embodied any more. However, this is not only due to psychomotor inhibition (as, for example, in Parkinson's disease). Rather, the *conative dimension* of the body, i.e. its seeking for satisfaction, is missing. Normally, it is this dimension which opens up the peripersonal space as a realm of possibilities, 'affordances' and goals for action. In depressive patients, however, drive

[7] On the neurological level, these analyses may be correlated with concepts of schizophrenia as a neurodevelopmental disorder (Marenco and Weinberger 2000). A lack of intermodal integration due to faulty maturation of cortico-cortical connectivity could result in an impaired development of the "ecological self" and its perceptual, cognitive and emotional ties with the natural and social environment (Parnas et al. 1996, 2002).

and impulse, appetite and libido are reduced or lost, no more disclosing potential sources of pleasure and satisfaction. Confined to the present state of bodily restriction, the depressive person cannot *transcend* her body any more. With growing inhibition, her sensory-motor space is restricted to the nearest environment, culminating in depressive stupor. Thus, melancholia may be described as a reification or 'corporealization' of the lived body, a 'hyperembodiment' (Fuchs 2002a).

At the same time, there is a more subtle loss of the bodily resonance or affectability that mediates emotional experience and the affective attunement with others. Since the corporealized body loses its capacity of emotional resonance, the patients feel inanimate, detached from their emotions, and complain of a "feeling of not feeling". They are no longer capable of being moved and affected; the attractive and sympathetic qualities of their surroundings have vanished. Since loss of feeling means a diminished prereflective sense of self, *affective depersonalisation* is the clinical core-feature of severe melancholic episodes (Kraus 2002; Stanghellini 2004; Fuchs 2005a). In some cases, the depersonalisation culminates in the so-called nihilistic delusions or Cotard's syndrome (Enoch and Trethowan 1991). Patients then claim that they have already died, and their body has turned into a corpse. They may even deny their own existence or the existence of the world. This can be understood as a separation of the "pure", unaffected consciousness from the corporealized body, whose heaviness now changes to the opposite, i.e. a feeling of lightness or even to a complete loss of bodily sensations: Proprioception, taste, smell, the sense of warmth or pain may be missing. Thus, the sense of bodily ownership or auto-affection is severely disturbed, while the sense of agency is still present.

To summarize, the person affected by melancholia collapses into the spatial boundaries of her own solid, material body. Instead of transcending the physical body, she becomes completely identified with it: Unable to detach herself from the experience of bodily failure, she feels worthless, guilty or decaying. While this may be termed a 'hyperembodiment", in the nihilistic culmination of melancholia the self disconnects from the corporealized body; by this, however, it loses the sense of being alive. Similar types of disembodiment may occur in other depersonalization syndromes, where the affective sense of self is disintegrated and the body is experienced as an object among others.

Disturbances of the Body-Image (Object-Body)

In contrast to disturbances of prereflective embodied self-awareness, other kinds of disorders originate from the explicit relation of the subject towards his or her body, i.e. from *body-image*. Thus, the situation of being shamefully exposed to others' gazes may give rise to disorders such as social phobia or body dysmorphic disorder, while a more complex combination of affective, conceptual and social aspects of the body image is involved in hypochondriasis, somatoform disorders and anorexia nervosa. As examples, we will have a closer look at *body dysmorphic disorder* and *anorexia*.

Body Dysmorphic Disorder

The potential self-alienation that arises from becoming aware of oneself in others' eyes has been famously analyzed by Sartre (1943). Exposed to their gazes, my prereflective embodied being is turned inside-out, as it were, and my world is decentralized. The lived-body becomes a body-for-others, i.e. an observed, unprotected or denuded object-body, exposed to potential evaluation or rejection. This is the origin of several self-reflective emotions, in particular, of embarrassment and shame. In shame, one is painfully affected by centripetal directions, that is, by piercing gazes or pointing fingers which one tries to escape in vain. The ashamed person becomes the focus of felt attention, paralyzed and reified through the others' gazes, and loses her natural centrality and self-confidence. Thus, shame is of particular importance for the pathologies of the body image (Fuchs 2002b). They typically manifest themselves for the first time in adolescence, when the body changes and gains a new external aspect through sexual maturation.

Body dysmorphic disorder is characterized by overvalued fears of an assumed ugliness or deformity of actually inconspicuous body parts. The patients complain of a huge nose, a misshapen form of the mouth or other parts, excessive hair in the face, swelling or reddening of the complexion, etc. Often the body part concerned is felt as prominent and as bigger than before. Thus, the reification of the body through the other's gaze focuses on one part as *'pars pro toto'*. Body dysmorphic shame is increased by the patient's egocentristic and hyperreflexive stance. Fear of visual exposure and feelings of being constantly observed, stared or laughed at by the others may culminate in paranoid ideas of reference (Pinto and Phillips 2005). Cosmetic surgery is often sought, but as a rule does not alter the severe lack of self-esteem the disorder is based upon. The 'body-for-others' now dominates the lived-body and leads to sociophobic avoidance.

Patients with body dysmorphic disorder are mostly characterized by sensitive, dependent, ambitious or narcissistic tendencies (Phillips 2000). They are especially threatened by set-backs, humiliations or failures in the interpersonal sphere. Thus, the pathology of the body image is caused by a disturbance in their social relationships which, however, remains hidden to themselves. The patient's bodily appearance stands only vicariously for an insufficiency of his or her basic self-esteem (Phillips et al. 2004; Buhlmann et al. 2007). Feeling his own self-devaluation in the other's gazes, the patient is overwhelmed by their perspective on himself, unable to gain an independent point of view. The lived body becomes conscious as corporeal body, and with it, the patient's thinking constantly revolves around the body part. Since self-awareness is thus fixed on the isolated body-object, the vicious circle of reification and shameful self-awareness can no more be interrupted.

Anorexia Nervosa

In anorexia nervosa, the dialectic between *being* a body-subject and *having* one's body as an object becomes the core of the disorder. The anorectic patient refuses

the dependence on the prereflective, natural body with its uncontrollable and obscure becoming, its threatening impulses and cravings – in particular hunger and sexual desire – which may only be quenched by external supply. This self-willed, appetent body now becomes an alienated, repulsive object that may even arouse disgust. Swallowing food is experienced as the incorporation of a foreign substance that stuffs the body and causes it to bulge. The anorectic patient rejects her hungry, dependent body, but also denies the maturation of her female, swelling and sexual body. Gaining independence from it, and turning it into an object of control and mastery, becomes a source of grandiose triumph (Walter et al. 2007). Thus, the implicit sense of bodily ownership is replaced by an explicit appropriation of the body aimed at perfect control and maximal suppression of need and desire.[8]

Though distortions of the body image, such as feelings of fatness and unattractiveness, overestimation of body size and weight[9], play an important role, these external aspects of the body image constitute only ostensible motives, not the primary source of the addictive starvation. Rather, seeking to compensate for a lacking sense of identity and autonomy, the patients gain a feeling of accomplishment by rigorously subjugating and modelling their body: "I do not feel hunger any more; I am self-sufficient and don't need anything from outside" (Dignon et al. 2006). Similarly, the cessation of menstruation and loss of sexual desire renders the anorectic independent both from her body and from others. Thus, the body expresses a particular disturbance of the patient's relationships: her appearance and comportment cannot fail to reject those around her. "To look at her is awkward; she looks like a dying person. To hug her is uncomfortable; she feels hard and skeletal" (Jacobson 2007). Moreover, to eat with an anorectic is alienating and tormenting. In withdrawing from eating, she is also expressing a rejection of sociability – literally, of sharing bread with others.

In sum, for the anorectic patient, being in control over her body becomes synonymous with being in control of her life. By turning the fluid lived body into a rigid object body she also blocks the everyday intercorporeal contact with others. Certainly, cultural influences on the body image, i.e. the promotion of thinness as the ideal female form in Western nations, play an important role. However, for the patients slenderness is not aimed at sexual attractiveness, but rather constitutes an esthetic ideal of a seraphic, asexual and self-contained body. Thus, in anorexia the self is alienated from its prereflective embodied being; the inevitable ambiguity of being and having a body is turned into a sharp dualism, reminiscent of Platonic and Christian traditions of the body as "the soul's dungeon".

[8] "Anorexia" is derived from the Greek *"órexis"* which means "desire", "striving".

[9] Recent reviews of research suggest that the distortion is not a perceptual problem, but one of how the perceptual information is evaluated by the affected person (Skrzypek et al. 2001, Benninghoven et al. 2007).

Disturbances of Temporality

Basic and extended self-awareness are also associated with two different levels of phenomenological time: (a) a *basic or implicit temporality* of conscious experience, and (b) *explicit or autobiographical temporality*.

(a) Basic, prereflectively lived temporality is not a psychological category, but an intrinsic feature of conscious experience. Lived time runs with the movement of life, unfolding through the processes of embodied activity. Even in its most basic forms, consciousness is constituted as the duration or extension of awareness that spans succeeding moments and thus establishes a fundamental continuity. According to Husserl's analyses of 'internal time consciousness' (Husserl 1991), there is a constant 'passive synthesis' of an impressional present with its predecessors being retained (retention), and with its successors being intended at the same time (protention). The now does not exist in isolation but as the "temporal fringe" or "temporal field" spanned by retentions and protentions. Thus, a melody is not the mere succession or sum of single tones, but their integration into a temporal *gestalt.* This constant integration is equivalent to the continuity of the basic self: At the same time that I am aware of a melody, I am co-aware of my ongoing experience of the melody; self-awareness is implicit in my experience of intentional content (Gallagher and Zahavi 2005).

According to Merleau-Ponty (1960), this basic temporal structure constitutes the 'intentional arc' or the operative intentionality of embodied subjectivity. It is operant in every perception (as being based on comparison and detection of changes) as well as in every action (as being based on motivational and sensory-motor anticipation of the goal). Fuster has related this temporal integration to the functions of the prefrontal cortex comprising the tripartite functions of *working memory* (related to the past), *interference control* (related to the present) and *preparatory set* (related to the future). "Integration across time is a basic function of the prefrontal cortex and the basis of its cardinal role in the temporal organization of behaviour" (Fuster 2003). Thus, the readiness potential in the premotor cortex may be seen as a neural indicator of intended actions. The inhibitory interference control protects the *gestalt* of actions or behaviour from interfering influences or impulses. Obviously this is also necessary for any selective attention. Moreover, time estimation studies have pointed out that the distributed interaction of the prefrontal cortex with the cerebellum, the basal ganglia and the inferior temporal lobe is essential for temporal information processing in the brain (Vogeley and Kupke 2007).

(b) Whereas in prereflective (implicit) temporality future and past do not stand out against the pure presence of 'becoming', *explicit or autobiographical temporality* arises when the individual becomes aware of her own past and future, her origins and her finitude, and realizes that life is not merely given, but a life to be lead, or even a task to be performed. Explicit temporality is based on a sense of personal continuity over time, of being a person with certain abilities, character traits, interests, goals and convictions. It manifests

itself particularly in the ability to make plans and promises, to pursue one's goals even against resistance, and thus to project oneself into the future. It also implies the constant attempt at a meaningful integration of one's life history, using the narrative models and accounts prevalent in one's cultural environment (Taylor 1989; Philipps 2003). Thus, temporality, narrativity and coherence of identity are closely intertwined.

Disturbances of Basic Temporality

Disturbances of basic temporality may affect, on the one hand, the motivational and energetic dynamics of mental life. Affective disorders typically present alterations of the experienced velocity of time flow, with acceleration in mania and retardation in depression. Time estimation studies have mostly found a distension of subjective time experience in depression, and an abbreviation in hypomanic or manic episodes (Mezey and Knight 1965; Bech 1975; Kitamura and Kumar 1982; Münzel et al. 1988; Mundt et al. 1998). This corresponds to phenomenological conceptions of affective disorders as disturbances of self-temporalization (Tellenbach 1980; Fuchs 2001a).

Whereas the basic temporal structure is preserved in these disorders, schizophrenic experiences such as thought disorder, loss of agency or delusions of control may at least in part be explained by a disturbance and fragmentation of internal time consciousness (Fuchs 2000, 2007; Gallagher 2005; Vogeley and Kupke 2007). As is well known, schizophrenic patients show impaired attentional spans, difficulties in planning, initiating and coherently performing action or speech, as well as disruptions of experiential continuity. Moreover, disturbances of the temporal sequencing and synchronisation of cognitive, perceptive and motor functions have been described in schizophrenia, leading to the concept of "cognitive dysmetria" as a basic disturbance (Andreason et al. 1998). A hypothetical disconnection syndrome in cortico-cerebellar-thalamic circuits could result in a failing coordination of mental and motor activity. In phenomenological terms, these disturbances correspond to a fragmentation of the intentional arcs of thought, action and perception.

A closer analysis, based on Husserl's concepts, points to an impairment and intermittent failure of the *protentional* function of consciousness as the cause of this fragmentation (Gallagher 2000b; Fuchs 2000, pp. 144ff., 2007; Mishara 2007). Because schizophrenic patients still experience disrupted thoughts or actions as belonging to themselves, the retentional function which may be related to the sense of ownership seems to be effective. However, a weakening of protentions would not only lead to a reduced attentional span or thought disorder, but also to a disturbance of *agency*. Gallagher has proposed that agency is generated precisely in the processes that anticipate the thought or action. If these anticipatory, preparatory or protentional processes are disturbed, unfitting associations or movements may intrude, but can only be experienced in the retentional mode. The subject is then no more actively directed towards the future, but is left with focusing on what just turned up in his consciousness, or on the sensory feedback of his just-past

movement. This *delayed or retroactive consciousness* is captured in the following description of a schizophrenic patient:

> My feeling of experience *as my own experience* only appears a split second delayed (Parnas 2005, p. 245).

This kind of delay may be regarded as a decisive basis of psychotic self-disorders: Since the retentional-protentional structure implies a tacit self-awareness as well (see above), a fragmentation of this structure causes a disruption of self-continuity. Consequently, the unintended and unforeseen events of thinking or acting are experienced as alien to the self, i.e. as thought insertions, auditory hallucinations or alien control of action.

Neuropsychological evidence links these analyses to disturbances of working memory and of executive control functions mainly located in the prefrontal cortex (Fuster 1997; Harrington et al. 1998; Manoach 2003), in particular, with the timing or sequencing component of mental activity. Patients with schizophrenia show marked deficits of working memory which sometimes manifest themselves as formal thought disorders (Vogeley et al. 1999). Further, they may exhibit a retardation and disturbance of sequential finger movements (Jirsa et al. 1996), a reduced ability to discriminate stimuli in close temporal vicinity (Braus et al. 2001), and abnormally long latencies in estimating time intervals (Mishara 2007). This is in accordance with the phenomenological account: If events occur faster than anticipated, the protentional function would be 'overwhelmed', and perplexity would result when the patients try to interpret the meaning of what intrudes on them. Finally, the emergence of delusions may be regarded as the formation of a fixed framework that integrates the nontemporalized fragments in a preconceived, rigid schema of meaning, at the price of a circumscribed closure of the future as a dimension of open possibilities.

In sum, there is increasing evidence for a structural homology between phenomenology and cognitive neuroscience in time consciousness. Empirical data and theoretical models relate the postulated disturbance of time consciousness in schizophrenia to a dysfunction of the prefrontal cortex and its connection with cerebellar and thalamic functions necessary to establish common time frames for integrated tasks (Vogeley and Kupke 2007).

Disturbances of Autobiographical (Explicit) Temporality

Disturbances on the higher level of autobiographical temporality are common in many psychopathological conditions. As an example, I will describe what may be called a *fragmentation of the narrative self* in Borderline personality disorder (BPD).

While basic neuropsychological functions of temporality are intact in BPD, the *rapidly changing affects and moods* conspicuous in these patients result in an incoherence of self-related states and self-concepts. Extreme affective oscillations make them feel almost like different people, each defined by a particular mood state. The result is a shifting view of oneself, with sharp discontinuities, rapidly changing roles, goals and relationships, and an underlying feeling of inner emptiness.

There is no sense of personal continuity over time and across situations, no concept of self-development that could be projected into the future, but only an endless repetition of the same affective states, creating a peculiar atemporal mode of existing (Westen and Cohen 1993; Fuchs 2007c). Borderline individuals, as it were, *are* only what they are experiencing at a given moment, in an often intense, and yet empty present; for it lacks the fulfillment which originates from the integration of past experience and anticipated future.

Similarly, the well-known phenomenon of *splitting* (Kernberg 1975; Kernberg et al. 1989) signifies that borderline individuals are unable to integrate positive and negative aspects of the self and others into coherent perceptions. Depending on the present state of affect, the other is either totally good or totally bad, ideal or devalued; the self is either noble or mean, grandiose or corrupt etc. This results in a failure to form a coherent, over-arching self-concept. Though identity disturbances can be found in other types of personality disorders as well, they are typically associated with BPD and present in the majority of cases (60–90%; Wilkinson-Ryan and Westen 2000). Patients describe a painful sense of incoherence and inauthenticity; they feel as if they were only pretending to be what they are, as if they cheated others into believing them. In fact their personality often changes dramatically depending on whom they are with. Even their sexual identity may be unstable and shifting.

The fragmentation of identity is connected to an *incoherence of autobiographical memory* to be found in borderline individuals. They have marked difficulties in recalling specific autobiographical experiences, and often their narrative accounts show large gaps or inconsistencies (Startup et al. 1999; Wilkinson-Ryan and Westen 2000). These difficulties are closely related to the patients' tendency to *dissociate*. Dissociation may be regarded as a failure to integrate perception, affect, memory, and identity into a coherent sense of consciousness and self. There is accumulating evidence that susceptibility to dissociation is, at least in part, the result of traumatic experiences and adverse early environments (Van Ijzendoorn and Schuengel 1996). Dissociated states first manifest themselves when traumatic experiences are initially stored in memory as sensory fragments without a coherent narrative. Dissociation as well as over-general autobiographical recall may serve as a strategy to avert trauma-related distressing emotions. On the other hand, they additionally undermine the coherence of the life narrative. Thus, BPD particularly demonstrates the vulnerable constitution of autobiographical self-coherence.

Disturbances of Intersubjectivity

All mental disorders imply more or less profound disturbances of intersubjectivity, that is, a restricted freedom of behaving and interacting with others in the common life-world. However, the concepts of intersubjectivity currently prevailing in clinical psychology and psychopathology are mainly based on a mentalistic approach that locates the disorder inside the patient. They assume a fundamental strangeness and inaccessibility of the other whose hidden mental states, thoughts or feelings

may only be indirectly inferred from his external bodily behaviour by using a 'Theory of Mind' (ToM), 'mentalizing' or 'mindreading'. On this view, disorders of intersubjectivity e.g. in autism or schizophrenia are derived from a faulty development or functioning of ToM modules. From a phenomenological point of view, however, intersubjectivity is primarily based on a prereflective, immediate relationship of self and other in an emergent bi-personal field. Instead of a theory deficit, autistic and schizophrenic patients rather suffer from a basic disturbance of being-with-others which they try to compensate by a 'morbid rationalism', i.e. precisely by hypothetical constructs and assumptions about the world of the others. Hence, at least two levels of intersubjectivity should be distinguished: (a) *primary intersubjectivity* or 'intercorporeality' (Merleau-Ponty 1960), and (b) *secondary intersubjectivity*, culminating in the achievement of a 'self-other metaperspective' (Laing et al. 1966).

(a) *Primary intersubjectivity* (Trevarthen 1979) develops in the first year of life. Imitation of facial expression starts from birth on, that means, infants are already able to transpose the seen facial expressions of others into their own proprioception and movement (Meltzoff and Moore 1977, 1989). This bodily resonance is supposedly mediated by the mirror neuron system in the premotor cortex (Gallese 2001). Moreover, familiar patterns of interaction and affect attunement are laid down as interactive schemas in implicit memory. Thus, long before the age of 4, the supposed age for acquiring a ToM, the infant already gains a basic understanding of others through common practices. In embodied and empathic interaction, the other is not assumed to be located 'behind' his action, but he enacts and expresses his intentions, and in seeing his expressive movements and actions embedded in their specific context, "… one already sees their meaning. No inference to a hidden set of mental states is necessary" (Gallagher and Zahavi 2008, p. 185). Thus, phenomenology denies the principal divide between the other's mind and body assumed by current theories of social cognition. Bodily behaviour is intentional and meaningful in its context, and as such it is beyond the artificial distinction of internal and external. It constitutes a sphere of primary 'intercorporeality' as the basis for all forms of intersubjectivity.

(b) Around the age of one year, infants increasingly go beyond the mutual resonance of intercorporeality and begin to refer to the common context explicitly, namely by joint attention, gaze-following and pointing. By noticing how others interact with the world, they learn the usage and meaning that objects have for them, and they recognize others' goals and intentions in uncompleted actions (Baldwin and Baird 2001; Meltzoff and Brooks 2001). Thus, the dyadic interaction opens out towards objects in the surrounding field. At the time, triangulating interactions with others emerge – typically, the mother–child dyad is augmented by the father's involvement (Fivaz-Depeursinge and Corboz-Warnerey 1999). Through this '*secondary intersubjectivity*' (Trevarthen and Hubley 1978), infants begin to perceive others as intentional agents whose actions and mutual interactions are meaningful in pragmatic contexts. In the course of cooperative actions, they also experience themselves as being perceived as intentional agents by others, in a common social space that gradually assumes a symbolic structure.

Symbolic interaction is already present in pointing and cooperative action, but reaches its crucial stage in *language*. Verbal narratives then become the presupposition for more sophisticated modes of understanding that develop in the third and fourth year of life (Gallagher and Hutto 2008). By engaging in story-telling practices, children learn to understand others in a meaningful way, to imagine their goals and intentions as underlying a certain course of actions. Narrative competency allows the child to develop the capacities of taking the other's perspective, of pretend playing and role-taking, and, finally, for certain predictive capacities underlying the usual ToM-tasks (e.g. the 'false belief' test). Interpersonal perception in its full senses is based on the ability to freely oscillate between an egocentric, embodied perspective on the one hand, and an allocentric or decentred perspective on the other. This decisive step of human development may be summarized as reaching an 'excentric position' (Plessner 1981) or as adopting a 'self-other metaperspective' (Laing et al. 1966)

In the following, pathologies of both levels of intersubjectivity will be pointed out, taking autism and schizophrenia as paradigm conditions.

Disturbances of Primary Intersubjectivity in Autism

As a paradigm developmental disorder of intersubjectivity, autism has increasingly become a topic of discussion in phenomenology as well as in cognitive neuroscience. The present psychopathology of autism is still dominated by a cognitive and modular approach, assuming a faulty development of ToM-modules that leads to a disturbed capacity to attribute mental states to others (Baron-Cohen 1995; Frith 1989). In recent years, however, criticism has been raised by phenomenological psychiatrists and philosophers (Hobson 1993, 2002; Gallagher 2004b), arguing that the deficit already involves failures of early interaction and interaffectivity. This is supported by the fact that many autistic symptoms such as lack of emotional contact, anxiety or agitation are already present in the first years of life, i.e. long before the supposed age to acquire a ToM. Moreover, between 15% and 60% of autistic individuals are able to pass false belief tests successfully, pointing out that the disorder can hardly be due only to a lack of ToM (Reed and Paterson 1990). From a phenomenological approach, autism should rather be conceived as a *disorder of primary or embodied intersubjectivity*. This includes disturbances in (a) sensory-motor integration, (b) imitation and affect attunement, and (c) holistic perception.

(a) There is evidence that autistic children show a variety of basic sensory-motor abnormalities on the neurological level (Vilensky et al. 1981; Mari et al. 2003). In studies of videotapes such abnormalities could already be found in the first year of life in children who were later diagnosed as autistic (Teitelbaum et al. 1998), e.g. problems in righting, sitting, crawling and walking, or abnormal motor patterns. This points to a *deficient integration* of visual, kinesthetic, vestibular and tactile sensations into a common experiential space. Infant research has shown that early dyadic interactions are particularly based on the integration of sensory, motor and affective experience (Stern 1985). In other words, there is a close connection

between the *'sensus communis'* (intermodal integration) and social attunement or *'common sense'*. Hence, faulty intermodal integration may significantly interfere with the development of embodied social cognition in autistic children.

(b) A particular aspect of disturbed integration concerns the sensory-motor feedback loops involved in *imitation*. Based on the mirror neuron system and shared self-other representations of movement (Decety and Sommerville 2003), imitation serves as a major instrument for early social cognition (Meltzoff 2002). The literature shows a consistent finding that people with autism do not readily imitate the actions of others (Smith and Bryson 1994; Hobson and Lee 1999). There is also increasing evidence for a mirror neuron dysfunction in autism spectrum disorders (Oberman et al. 2005; Dapretto et al. 2006). Problems with imitation might then lead to a cascade of impairments in early intercorporeality, affect attunement, joint attention, pretend play and, finally, acquisition of a ToM.

(c) Moreover, autistic children show problems in establishing *perceptual and situational coherence:* They focus on single parts or elements rather than perceiving the Gestalt of objects, and they tend to treat things as decontextualized, thus missing their particular meaning provided by the situation as whole (Frith 1989; Happé 1995). While this failure of holistic cognition may have some positive effects such as remembering unrelated or non-sensical items, it significantly interferes with the development of social understanding. Thus, affect attunement is crucially based on perceiving emotional cues (gestures, facial expression, vocal intonations) as embedded in recurrent situations. Even more, secondary intersubjectivity depends on learning how to relate gestures and actions of others to the context in order to grasp their intentions. Correspondingly, eye tracking studies have shown that autistic children focus on inanimate and irrelevant details of interactive situations while missing the relevant social cues (Klin et al. 2003).

Although the question of reciprocal interaction between these different mechanisms is as yet far from being solved, it seems most likely that they converge to a fundamental disturbance of embodied social cognition very early in life. This disturbance is then bound to compromise the later stages of intersubjectivity; for these are not based on ToM modules that develop separately, but rather on a primary 'sensus communis' or 'social sense' that is subsequently extended by reference to the common context, by triangulating interactions and by understanding others as intentional agents like oneself. In sum, what autistic children lack is not a theoretical concept of others' minds; on the contrary, ToM-like strategies of mentalizing and inferring from social cues are rather employed by high-functioning autistic individuals as a compensation for the lacking capacities of primary and secondary intersubjectivity (Zahavi and Parnas 2003).

Disturbances of Secondary Intersubjectivity in Schizophrenia

According to currently dominant theories, schizophrenia should likewise be understood as involving some incapacity for meta-awareness, self-monitoring and theory

of mind. Frith (1992) has proposed that schizophrenia can be explained by impaired metarepresentation: Problems with monitoring one's own intentions to think or act result in symptoms such as thought-insertion or delusions of alien control. Moreover, the inability to correctly infer the mental states of others gives rise to paranoid delusions. A number of experimental studies have shown that patients with schizophrenia perform badly in theory of mind tasks (see Lee et al. 2004 for a review). However, studies on real life interactions could not confirm these results – in normal conversations even delusional patients showed intact theory of mind skills (Walston et al. 2000; McCabe et al. 2004). Obviously, the interpretation of the results depends on how one conceives the role of narrative and context versus abstract mentalizing abilities in understanding others (Gallagher and Hutto 2008).

In contrast to meta-representational approaches to schizophrenia, phenomenological psychopathology, as we have seen, emphasizes disturbances of basic self-awareness and attunement to the social world. Pathologies of the prereflective, embodied self necessarily also impair the patient's ability to interact with others. What is lacking in schizophrenic autism, then, is not explicit knowledge, inferential or ToM abilities, but rather an implicit understanding of the 'rules of the game', a sense of proportion for what is appropriate, likely and relevant in the social context (Parnas et al. 2002). However, the disturbance of basic self-awareness does not only affect primary intersubjectivity, but also the higher level of self-other distinction or self-demarcation, resulting in phenomena termed *transitivism* 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 schizophrenic patient with a loss of his self. How could this be explained? – In current neurocognitive accounts, the sense of self is regarded as being generated by inferential self-monitoring processes. Corresponding explanation of symptoms such as transitivism, thought insertion, acoustic hallucinations or passivity experiences rely on the concept of *shared representations*, i.e. overlapping neuronal representations for the execution of an action and for the observation of the same action in others (Decety and Sommerville 2003). A hypothetical failure of the action attribution system (neuronal "who" system, Georgieff and Jeannerod 1998) then leads to self-other confusion and delusional misattribution.

However, such modular explanations miss the basic disturbance of self-awareness that precedes the acute psychotic symptoms often by years. From a phenomenological perspective, the self-other distinction is automatically constituted in every experience as an aspect of non-reflective self-awareness (Parnas 2003). If this primary sense of self or ipseity is disturbed, then taking a self-other metaperspective will become precarious. In grasping the other's perspective, the patients are no more able to maintain their own embodied center:

> A young man was frequently confused in a conversation, being unable to distinguish between himself and his interlocutor. He tended to lose the sense of whose thoughts originated

> in whom, and felt 'as if' the interlocutor somehow 'invaded' him, an experience that shattered his identity and was intensely anxiety-provoking. When walking on the street, he scrupulously avoided glancing at his mirror image in the windowpanes of the shops, because he felt uncertain on which side he actually was (Parnas 2003, p. 232).

Interpersonal perception, as we have seen, implies a continuous oscillation between the central, embodied perspective on the one hand, and the decentred or virtual perspective on the other. The same applies for perceiving oneself in the mirror. It is this dialectical tension of the "excentric position" that the schizophrenic patient cannot keep up any more. The perspectives of self and other are confused instead of being integrated. 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.[10] Thus, he is entangled in a disembodied, self-referential and delusional view from the outside (Fuchs 2002a, 2005a). It seems most likely that this short-circuit should also be mirrored in faulty activity of the neural systems representing self- and other-generated actions. However, the phenomenological approach would emphasize the precedent weakness on the level of basic self-awareness.

It is also for this reason that schizophrenia manifests itself often in situations of social exposure and emotional disclosure, 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 what may be called a *disembodiment,* caused by a loss of self in the dialectical process of intersubjective perception. There are two psychopathological outcomes of this alteration. First, schizophrenic *autism* may be caused by a withdrawal from the threatening intersubjective sphere. Second, *delusions* constitute a "locked reality" that protects the deluded person from being questioned and overwhelmed by the others' intentionality. In the last analysis, intersubjectivity can only be maintained at the price of a severe restriction of the patient's life world.

Conclusion

From a phenomenological point of view, mental illness is not something merely "mental" but manifests itself in dimensions such as self-awareness, embodiment, temporality and intersubjectivity, or in short, in an alteration of the patient's overall being-in-the-world. I have argued that these dimensions may each be characterized by a duality of levels: a basic, implicit level of primary experience, and an extended, explicit level of conscious relation to oneself and to others. On both levels as well as in their relation to each other disturbances may arise, and it is of essential diagnostic and therapeutic relevance to adequately attribute the actual illness to those

[10] A possible failure of the neuronal "who" system may then serve as a pathway, but not as the primary cause of the self-other confusion.

levels.[11] The symptoms that manifest themselves on the explicit and verbal level are not always suited to reflect the primary disturbances of experience. In contrast, phenomenology is capable of grasping the level of prereflective experience which is concerned particularly in psychotic disorders and whose alteration may secondarily generate the productive symptoms.

On the other hand, the patient's relation to himself is an essential component of psychopathology as well. For to a certain extent, mental illness always means a self-alienation. Something within me opposes me, escapes my control and dominates me, while I am in vain trying to regain my autonomy. Therefore the subjective side of the illness does not only consist in a secondary reaction to some basic physiological dysfunction as is the case in somatic diseases; it is inseparable from the illness itself. Thus, it may include, e.g. in depression, negative self-evaluations and thought patterns which, on their part, act as self-fulfilling prophecies and thus aggravate the depression. For disorders such as social phobia, hypochondriasis or anorexia it is even more obvious that they are grounded in the patient's self-relation. Finally, schizophrenia is not just a bundle of dysfunctions but involves a profound transformation of the self that includes particular forms of intentionality, struggling and coping with one's illness (Sass 2007). In any case, subjectivity as a self-relation implying the continuous necessity of taking a stance towards one's own state does not permit us to regard mental disorders as mere biological dysfunctions. This is also the presupposition for every psychotherapeutic intervention that addresses the patient as a self-relating subject.

Phenomenology further challenges core assumptions of present psychiatry by overcoming the narrow conception of the patient as an enclosed individual with a clearly defined brain dysfunction and by recognizing the ways in which the disorder in question is being shaped by the patient's intersubjective, socio-historical situation. Independent of its etiology, mental illness is always a disturbance of the person's relations to others. It is accompanied by various restrictions of one's freedom to respond to the social environment in a flexible and autonomous way. Thus, mental disorders may also be conceived as disturbances of *responsivity* (Fuchs 2007a). A person's social capacities are either inhibited by her illness or have primarily not developed in such a way as to enable her to regulate her relationships in a satisfying way. Therefore, a considerable part of psychopathology may not be assessed in the individual patient, let alone his brain, but only in his interactions with others. From this it follows that the simple bottom-up explanation of mental disorders as products of genetic or neurophysiological determinants is inadequate to the causal complexity involved. From an ecological or systemic perspective, the disorder should rather be regarded as the product of a *circular causality* of neurophysiological, subjective, environmental and social influences continuously interacting with each other.[12]

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[11]To take an example: ignoring the difference between primary and extended self has led to an industry of neuroimaging studies that claim to investigate the first-person perspective while only being able to access higher order self-referential judgments (Mishara 2007).

[12]Circular models involving negative feedback loops of primary symptoms, emotions, cognitions and social interactions have been developed e.g. for depressive, anxiety or Borderline Personality disorders (Linehan 1993; Grawe 2002).

Phenomenology regards the person as inseparable from their being-in-the-world and being-with-others. This is in correspondence with a systemic or ecological view of the brain as an organ that is embedded in, and continuously shaped by environmental relations. The increasing convergence of phenomenology and embodied or enactive cognitive neuroscience also applies for phenomenological psychopathology and systemic accounts of mental illness. The potentialities held out by a close cooperation between these approaches are just being discovered.

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