Disordered Self in the Schizophrenia Spectrum
Parnas, Josef; Henriksen, Mads Gram

Published in:
Harvard Review of Psychiatry

DOI:
10.1097/HRP.0000000000000040

Publication date:
2014

Document Version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Disordered Self in the Schizophrenia Spectrum: A Clinical and Research Perspective

Josef Parnas, MD, PhD, and Mads Gram Henriksen, PhD

Learning Objectives: After participating in this activity, learners should be better able to:
1. Assess anomalous self-experience as a core feature of schizophrenia spectrum disorders.
2. Evaluate current and historical research regarding disorders of self-experience in schizophrenia.

Abstract: This article explores the phenomenological and empirical rediscovery of anomalous self-experience as a core feature of the schizophrenia spectrum disorders and presents the current status of research in this field. Historically, a disordered self was considered to be a constitutive phenotype of schizophrenia. Although the notion of a disordered self has continued to appear occasionally over the years—mainly in the phenomenologically or psychodynamically oriented literature—this notion was usually considered as a theoretical construct rather than as referring to concretely lived anomalous experiences. Empirical research on the disorders of self-experience in schizophrenia can be traced back to the US-Denmark psychopathological collaboration in the well-known adoption and high-risk studies, which aimed at identifying trait or phenotypic vulnerability features. This research was later followed by clinical work with first-admission schizophrenia patients. We offer clinical descriptions of anomalous self-experience and outline the phenomenological structures of subjectivity that are needed for grasping the nature of these anomalous experiential phenomena. What appears to underlie these experiences is an instability of the first-person perspective that threatens the basic experience of being a self-coinciding, embodied, demarcated, and persisting subject of awareness. We summarize a series of empirical studies targeting self-experience in schizophrenia performed prior to and after the construction of a phenomenologically oriented psychometric instrument for assessing anomalies of self-experience, the Examination of Anomalous Self-Experience (EASE). These empirical studies support the classic clinical intuition that anomalous self-experiences form a central phenotype of schizophrenia. Implications for diagnosis and research are briefly discussed.

Keywords: empirical studies, Examination of Anomalous Self-Experience (EASE), phenomenology, schizophrenia, self-disorders

The purpose of this article is to review recent phenomenologically oriented research that focuses on certain characteristic anomalies of self-experience (i.e., self-disorders) in schizophrenia spectrum disorders. This research has implications for the nosology of schizophrenia and for efforts to identify etiologically relevant phenotypes, and it has potentially important clinical consequences regarding early diagnosis, differential diagnosis, and therapeutic approaches to the disease.

In addition to reviewing the empirical literature, we emphasize the clinical and scientific roots of this particular research efforts and also their evolution and conceptual continuity with both classic and more recent, phenomenologically oriented empirical studies of schizophrenia. This research is also a product of interdisciplinary collaboration between psychopathology, philosophy of mind, and phenomenology. The interdisciplinary and mixed clinical and scientific background means that the research also is relevant to the current debate on the status of psychiatry as a science and a profession. This heated debate, triggered most recently by the release of the Diagnostic and Statistical Manual of Mental Disorders (DSM)-5 and the preparations for the International Classification of Diseases (ICD)-11, has been fueled by a widespread disappointment with psychiatry’s lack of etiological and therapeutic progress—a lack partly attributed to the DSM’s rigid “diagnostic silos.”

The Harvard Review of Psychiatry offers CME for readers who complete questions about featured articles. Questions can be accessed from the Harvard Review of Psychiatry website (www.harvardreviewofpsychiatry.org) by clicking the CME tab. Please read the featured article and then log into the website for this educational offering. If you are already online, click here to go directly to the CME page for further information.

This is an open-access article distributed under the terms of the Creative Commons Attribution NonCommercial-NoDerivatives 3.0 License, where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially.

© 2014 President and Fellows of Harvard College
DOI: 10.1097/HRP.0000000000000040
HISTORICAL BACKGROUND
The earliest—and quite sophisticated—psychopathological descriptions of anomalous self-experience appeared in French psychiatry at the turn of the twentieth century, but they were never associated with dementia praecox or schizophrenia because these latter concepts emerged only later in the French classification of mental disorders. By contrast, explicit references to a disordered self, considered as the fundamental phenotype of schizophrenia, are present in nearly all foundational texts on the disease, though using various terms and with varying clarity. For example, Kraepelin considered “disunity of consciousness” to be the core feature of schizophrenia. To grasp the link between selfhood and “unity of consciousness,” consider the following example. My current field of consciousness, as I am typing this essay, comprises heterogeneous dimensions, including thinking, perception, movement, and visual, tactile, and proprioceptive stimuli. Their coherence, or “unity,” is established by the fact that they are all my experiences; that is, they all appear in a single field of awareness, that of a single subject—namely, me.

Eugen Bleuler listed the experiential “ego disorders” among the “complex fundamental” (diagnostic, or almost pathognomonic) schizophrenic symptoms. Karl Jaspers observed that for the patient with schizophrenia, the sense of self-presence was fundamentally weakened: “Descartes’ ‘cogito ergo sum’ (I think therefore I am) may still be superficially cogitated but it is no longer a valid experience” (emphasis added). Kurt Schneider considered a “radical qualitative change” of the field of consciousness to be a generative matrix of the first-rank symptoms: “[Certain] disturbances of self-experience show the greatest degree of schizophrenic specificity. Here we refer to those disturbances of first personal givenness (Ich-heit) or ‘mineness’ (Meinhaftigkeit).”

The interest in disorders of the self in schizophrenia persisted in phenomenological psychiatry (e.g., Minkowski, Ey, Laing, Kimura, Sass) and in psychodynamically oriented theoretical contributions and case studies. The ICD-8 and diagnostic prototypes, valid until 1992, described schizophrenia as a “fundamental disturbance of the personality, which involves its most basic functions, those that give the normal person his feeling of individuality, uniqueness, and self-direction” (emphasis added). Note that the ICD-8/9 term “personality,” borrowed from the writings of Karl Jaspers and Kurt Schneider, actually originated in nineteenth-century psychiatry and psychology, where it signified what we today tend to call the “self” or “subjectivity,” and not the contemporary concept of personality, which refers to temperamental and habitual characterological dispositions.

Despite continuing interest in the self and its experiential distortions in schizophrenia, research that was systematic and empirical remained largely absent through the end of the twentieth century. The only notable exception is the recent work (1995) by the Swiss psychiatrist Christian Scharfetter, who developed self-rating scales for measuring the psychotic alteration of the sense of self—using dimensions of selfhood originally proposed by Jaspers—over the symptomatic course of the schizophrenic psychosis.

The publication of DSM-III in 1980, which completed the so-called operational revolution in psychiatry, involved a behavioristic, subjectivity-aversive stance that emphasized “observable features, demanding only a minimum of inference,” and that radically privileged reliability over validity. The issue of subjectivity or self vanished from the canonical discourse on the nature of schizophrenia and from the research agendas. That is not to say, of course, that the notion of self completely disappeared from the literature on schizophrenia. It continued to appear occasionally, though not as an anomalous experience accessible to description or study, but as a theoretical construct, a metaphor, or a meta-cognitive locus in cognitive science. Consequently, we stress that the research discussed in this article relates not to an abstract or inferred construct of the self but to an experientially disordered self—that is, a concretely lived, experiential phenomenon (phenotype) that is accessible to empirical and phenomenological observation and analysis.

CLINICAL AND RESEARCH BACKGROUND
The contemporary Copenhagen research on self-disorders in schizophrenia has its roots in the collaborative US-Denmark studies on adoption, high-risk populations, and linkage. These research projects focused on detecting characteristic, phenotypic traits that represent the psychopathological features of schizophrenia spectrum disorders. The diagnostic portion of these studies employed various standard semi-structured interviews, and the psychiatrists performing these interviews were all senior, consultant-level clinicians who were trained in the tenets of psychiatric phenomenology and in phenomenological interview methods.

The adoption studies demonstrated the role of genes in the etiology of schizophrenia and led to the emergence of the “spectrum” concept, reviving the old concept of “schizoidia” and thereby providing the empirical foundation for the diagnostic category of schizotypal disorders, which was introduced in DSM-III. The US-Denmark high-risk prospective longitudinal study (involving 207 offspring of schizophrenic mothers) identified the following adolescent (age 15) premorbid predictors adult diagnostic outcome on the schizophrenia spectrum (i.e., schizophrenia; other nonorganic, nonaffective psychosis; and schizotypal disorders): deficient interpersonal emotional rapport, eccentric appearance or behavior, subtle formal thought disorder, social isolation, and interpersonal difficulties. These results seemed to fit into Bleuler’s and Meehl’s intuition that the (autistic) “fundamental traits” in schizophrenia are manifest in the expressive, interpersonal, and communicative-symbolic space. These traits were considered as the phenotypic core of vulnerability to schizophrenia in the diathesis-stress models of the illness—a model articulated in 1927 by Eugene Minkowski, a French psychiatrist and a pupil of Eugen Bleuler.
The notion of schizophrenia as a mental disease can be decomposed into two factors of different order. First, the schizoidia [the clinical core], which is a constitutional, highly specific, and temporally enduring factor, and, second, a nonspecific noxious factor of environmental evolutive nature. This noxious factor, acting upon the [vulnerability of] schizoidia, transforms the latter into schizophrenia...

Independently, writing in 1962, Paul Meehl presented a new version of this diathesis-stress model, in which schizophrenia was considered a severely decompensated schizotypal disorder influenced by environmental stressors and polygenetic factors. In his account the core schizotypal features (i.e., ambivalence, social aversiveness, cognitive slippage [formal thought disorder], and anhedonia) were considered to be proximally tied to the neural substrate of the illness. Likewise, the Copenhagen High-Risk Project indicated affinities between these core features and the notion of "schizophrenic autism," a concept from Bleuler but subsequently rearticulated by phenomenological psychiatry in a clinically more useful and adequate way. On that view the core of schizophrenic autism is not a defensive withdrawal to inner fantasy life (as Bleuler seemed to suggest) but a lack of a basic, automatic, and nonreflective attunement to the individual's self-, other-, and world-relation. In addition to manifesting itself as a series of "external" or behavioral signs, this lack of attunement invariably entails a profound change of subjective experience. Blankenburg's famous patient, Anne, presents the following frequently quoted complaint that dramatically illustrates this personal milieu (which Blankenburg interprets as a "crisis of common sense" or "lack of natural self-evidence"):...

What is it that I am missing? It is something so small, but strange, it is something so important. It is impossible to live without it. I find that I no longer have footing in the world. I have lost a hold in regard to the simplest, everyday things. It seems that I lack a natural understanding for what is matter of course and obvious to others... Every person knows how to behave, to take a direction, or to think something specific... [A]ll these involve rules that the person follows. I am not able to recognize these rules are. I am missing the basics... I don't know what to call this... It is not knowledge... Every child knows these things... Another aspect of this disordered self is a typically deficient sense of "mineness" of the field of awareness, as in "my thoughts are strange and have no respect for me." This phenomenon is often closely related to various distortions of the first-person perspective; for example, "my point of view seems to tremble slightly, moves backwards...". Patients also frequently describe a hyper-reflective attitude to their own experiences: thoughts, feelings, or sense impressions are regarded or inspected from afar as objects of awareness rather than simply "lived through." One patient distinguished between "being thoughts," when these thoughts were permeated by her sense of self, and "having thoughts," when thoughts were experienced as introspective, thing-like objects. There may also be different forms of disembodiment (e.g., "there is a split between my mind and my body" or "it feels as if my body does not really fit") and quasi-solipsistic experiences, usually with a fleeting sense of being at the center of the world or that one's experiential field is the only extant reality.

The disorders at the subject- or self-pole of experience are typically also associated with deformations at the "world pole," as vividly described by Blankenburg's patient Anne: the lack of immersion in the surrounding world; the questioning of what others consider obvious or self-evident (often reflected in questions such as "why is the grass green?" or "why do people say 'hello' to each other?"); varieties of derealization; and alienation from the social world. In phenomenological terms, the basic or foundational pre-reflective articulation of the subject-object intentional relation has gone astray. Self-disorders, as described above, are sometimes enacted through altered or strange existential patterns, including solipsistic grandiosity, bizarre attitudes and actions, "double bookkeeping" (i.e., the capacity to inhabit...
both the psychotic and real worlds at once), mannerist behaviors, or a search for a new existential or metaphysical meaning (e.g., adherence to sectarian political or religious groups).\textsuperscript{43–45}

A few additional clinical observations merit attention here.

First, anomalous self-experiences (self-disorders) have mainly a persisting, trait-like character. The notion of trait phenotype is usually applied to persistent expressive or behavioral features (e.g., persistent subtle formal thought disorder or inadequate affective modulation). In the case of experiential (subjective) phenomena such as self-disorders, the trait-like character of the anomalous self-experiences lies in their tendency to articulate themselves as a constant or recurring infrastructure of the patient’s conscious life—an infrastructure that determines more the form of experience (the \textit{how} of experience) than the particular contents of experience (the \textit{what} of experience). For example, what is distinctive about thought pressure is not that the patient has particular thoughts at a given moment but that the patient frequently experiences, say, several thematically unrelated trains of thought occurring chaotically at the same time and without his or her control. In sum, self-disorders are to a large extent structural aspects of subjective life that are, based on what the patients describe, never far away (as a potentiality) from their ongoing stream of experience. Very often, patients report that self-disorders date back to childhood or early adolescence. By the same token, at the time of patients’ first admission, many self-disorders have become almost indistinctly interwoven into patients’ mode of experiencing. At least partly for this reason, patients seldom seem to experience their initial self-disorders as “symptoms” of an illness (parallel to severe abdominal pain as a potential symptom of pancreatitis) but rather as intrinsic features of their existence and how they experience themselves, others, and the world—which might present a new framework for understanding poor insight into illness in schizophrenia.\textsuperscript{43} Moreover, self-disorders not only precede the onset of psychosis but also seem to persist after remission of a frank psychotic episode.

Second, we are not dealing here with psychotic phenomena. Self-disorders, no matter how strangely they are experienced, do not simply become elaborated at a psychotic level, although the articulation of psychosis in schizophrenia is related to the initial self-disorders.\textsuperscript{45} Self-disorders are typically verbally reported with the “as if” qualification (e.g., “it feels as if I am without a soul” or “I feel as if the thoughts aren’t really coming from me”). That is, the reflective reality judgment is still intact.

Third, many patients whom we have interviewed over the years seem to consider self-disorders as the very core of their illness and as contributing more to their suffering than the symptoms of psychosis.\textsuperscript{41} Frequently, patients are surprised to learn that the psychiatrist is familiar with their experiences, and they may become profoundly relieved after realizing that others also have similar experiences. Patients with an antecedent psychiatric history often express surprise that nobody ever asked them the necessary questions about their subjective life and way of experiencing. In this context it is worth noting that the alleviation of the feeling of existential solitude—albeit only partial or temporary—that comes to patients when they address their self-disorders may itself be of therapeutic value.

Finally, we emphasize that this kind of information about patients’ experience of their self-disorders cannot be obtained by a series of structured questions on a checklist. Rather, it requires a phenomenologically adequate interviewing approach that seeks to establish rapport and trust, and in which the active inquiry into the concrete phenomena, including examples and self-descriptions, is adequately and smoothly integrated into the patient’s own narrative.\textsuperscript{46} It is clinically important to recognize that the patient’s initial complaints are often in the nature of vague or nonspecific clichés that may be a shorthand for more specific complaints. Blankenburg termed this phenomenon the “non-specific specificity.”\textsuperscript{37,47} Often, only when the patient is asked for a concretely lived example of his (nonspecific) complaint does a more characteristic (and specific) configuration of anomalous experience emerge. For example, a patient complaining of “fatigue” may, upon prompting, report the constant, oppressive burden of a reflective, energy-consuming effort to decode and understand the meanings of ordinary, everyday conversations (in this case “fatigue” covers anomalous self-experiences, including loss of common sense, perplexity, and hyper-reflection). Another patient, complaining about “concentration difficulties,” may, upon request, describe these difficulties as rooted in several thematically unrelated and chaotic trains of thought that occur at the same time and that he can neither stop nor control, thus making it almost impossible to concentrate on something else. The psychiatrist’s acquaintance with the phenomenon of “non-specific specificity”\textsuperscript{37,47} is, in our view, extremely important in the context of early diagnostic assessment, especially of patients presenting with a vague, unelaborated picture of maladjustment, underperformance, chronic malaise and dysphoria, negative symptoms, or hypochondriac preoccupations.

**PHENOMENOLOGY OF DISORDERED SELF**

The empirical studies on self-disorders, which we review in detail below, jointly point toward an instability of the very basic sense of self in schizophrenia spectrum disorders (i.e., schizophrenia and schizotypal disorders). This instability does not, however, equal a lack or dissolution of the self (which perhaps may only occur in severe cases of catatonia). Thus, a patient suffering from a disordered sense of self continues to be a subject of awareness and to affirm himself or herself with the first personal pronoun “I.” In other words, patients experience self-disorders within an overarching experiential-existential perspective that constitutes their being-in-the-world; no matter how vulnerable the patients may be or how many self-disorders they are exposed to, their lives remain full and complete forms of human existence. The terms “instability” or “dis-order” indicate, however, that the normally tacit, taken-for-granted, pre-reflective, and
pre-conceptual sense of being a subject of awareness no
longer saturates one's experiences in the usual, unproblematic
way. Rather, in schizophrenia spectrum disorders the basic
sense of self appears to be fragile, threatened, and oscil-
ating. But what does this basic sense of self more specifically
amount to? To answer this question, psychiatry must go
beyond its own confines and draw on resources particularly
from philosophy of mind and phenomenology. Grasping
consciousness is not like grasping a spatial object or thing.

The basic sense of self signifies that we each live our
conscious life as a self-present, single, temporally persistent,
bodily, and demarcated (bounded) subject of experience.

To articulate the most basic or irreducible di-
mension of selfhood, phenomenology and the cognitive sci-
cences operate with the notions of a "minimal" or "core"
self; that is, a necessary structure that must be in place in
order for any experience to be experienced as someone's
experience (in contrast to, say, the experience existing in a
sort of free-floating state and only post hoc appropriated by
the subject in an act of reflection). The basic (or minimal)
sense of self is experientially, but pre-reflectively, manifest.
It refers to the first-person articulation of experiencing,
typically called "mineness," "myness," "for-me-ness," or
"ipseity." The term "ipseity" (in Latin, ipse = self) conveys that all experiences are tacitly or pre-reflectively lived as my experiences—that is, from my first-person perspective. Yet the notion of a mere or pure perspective does not exhaust the sense of ipseity. This notion also has a more substantial aspect in which the sense of "I-me-myself" persists over time and across different and changing modalities of conscious life. It is immediately, pre-reflectively, and non-inferentially given or present as a founding stratum of our experiential life. This sense of "I-me-myself" is property-less; that is, it cannot be further described with a series of adjectives or attributes. We may even say that "if intelligibility is grasping properties, then the 'myself' . . . eludes our grasp." From a phenomenological perspective, ipseity or the self does not "show up" in our experiences as a sort of object or quasi-object toward which we may direct our attention. Thus, ipseity is not a product of reflection, introspection, or meta-representational mental activity but a passively emerging first-person configuration of experience.

Iipseity has been compared to a flame that enlightens its sur-
rroundings and thereby itself. In other words, ipseity cannot be defined or grasped independently from the stream of consciousness in which it manifests itself as a specific structural configuration of that stream.

Iipseity is a precondition of more rich and complex feelings of identity. It signifies that I am always already aware of my-
self and that I therefore have no need for introspection, self-
observation, or self-reflection to assure myself of being myself or being the one who entertains these thoughts or undergoes these experiences. Ipseity conveys a foundational, immutable core that is necessary for our sense of existing as a self-present, bodily, demarcated, and persisting subject of awareness. Thus, ipseity exhibits a paradoxical nature; it may be considered as a general, universal form of consciousness, while also, notwithstanding its lack of properties, serving as the most intimate, individualized core of our personal identity. Ipseity thus needs to be distinguished from fuller, more complex notions of the self (e.g., the so-called narrative, extended, or personal self). And our central claim is that schizophrenia spectrum disor-
ders involve a selective disturbance of ipseity, though it may also, in turn, influence those more complex levels of the self. By contrast, personality disorders outside the schizo-
phrenia spectrum seem, in our view, to reflect disturbances at the more complex, self-representational or narrative levels of selfhood, leaving ipseity largely unaffected.

Today, various approaches—including the phenomeno-
logical, existential, psychoanalytical, and metacognitive—as well as autobiographical reports suggest that schizo-
phrenia involves a diminished sense of self. The meaning of the term "self," however, and how it may be "diminished" in schizophrenia seems to differ markedly from one author to the next. To elucidate the distinctness of our own hypo-
thesis, we will briefly compare it to another theoretical proposal: the so-called dialogical model of the self (as developed by Paul and John Lysaker). On that model, a "sense of self involves a disclosure of the self-as-X," where the "X" refers to what is termed (1) a "character-position" (e.g., self-as-citizen), (2) an "organism-position" (e.g., self-as-hungry), or (3) a "meta-position" (e.g., self-as-
fortunate). According to Lysaker and Lysaker, a sense of self emerges from a dynamic interplay (or "dia-
logue") between these three self-positions. On this model, the diminished sense of self in schizophrenia results from a relative loss of an ordered, interanimating play among these three self-positions, each of which has its own attributes. This approach contrasts sharply with the view we have presented here, according to which schizophrenia spectrum disorders involve a disturbance of ipseity—an instability of the normally tacit, pre-reflective, and pre-predictive founding stratum of our experiential life that is property-
less and that resists further qualification. Our proposal and the proposal by Lysaker and Lysaker target different dimen-
sions or levels of self-experience.

Finally, we note that our proposal is not necessarily at
odds with brain- or metacognitive-based models of the self in schizophrenia. The difference is that the latter tend to posit disruptions of the self as resulting from failures of higher-
order capacities, whereas we suggest that the sense of self in schizophrenia is often diminished at the level of immediate, first-order experience.

EARLY EMPIRICAL STUDIES

Data-collection instruments in the early (pre-2005) self-
disorders research included the forerunners of the Bonn
Scale for the Assessment of Basic Symptoms (BSABS) and
the final, published version of the BSABS (translated into
Danish), which had been expanded to include a few items
<table>
<thead>
<tr>
<th>Study</th>
<th>Sample</th>
<th>Purpose</th>
<th>Instrument to assess anomalous self-experience</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parnas et al. (1998)(^40)</td>
<td>ICD-10:</td>
<td>To explore anomalous self-experiences in the schizophrenic prodrome</td>
<td>Semi-structured BSABS (shortened version) interview with additional items concerning anomalous self-experience</td>
<td>Varieties of anomalies of self-experience were found in 70% of the schizophrenia spectrum patients</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia (n = 21)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schizotypy (n = 6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delusional disorder (n = 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Møller &amp; Husby (2000)(^41)</td>
<td>DSM-IV (all first-admission patients):</td>
<td>To identify core experiential and behavioral dimensions of the schizophrenic prodrome</td>
<td>Naturalistic case study design Qualitative interviews (5–8 hours, with patients and families about prodromal experiences and behaviors)</td>
<td>Two core prodromal experiential dimensions (i.e., disturbance of the sense of self; extreme preoccupation by, and withdrawal to, overvalued ideas) were identified</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia (n = 19)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parnas et al. (2003)(^61)</td>
<td>DSM-IV:</td>
<td>To test the specificity of certain anomalous self-experiences</td>
<td>BSABS—Danish version(^6) interview items were grouped into 7 a priori subscales (see Table 1 in Parnas et al. [2003])</td>
<td>Schizophrenia diagnosis was predicted by high scores on the subscales of perplexity, self-disorders, and perceptual disorders</td>
</tr>
<tr>
<td></td>
<td>Residual schizophrenia (n = 21)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychotic bipolar disorder in remission (n = 23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parnas et al. (2005)(^6)</td>
<td>ICD-10 (all first-admission patients):</td>
<td>To examine the distribution of anomalous self-experiences in Group 1 vs. schizotypal disorder and in the schizophrenia spectrum (Group 1 + schizotypal disorder) vs. non-spectrum disorders</td>
<td>BSABS—Danish version(^6) + additional items concerning anomalous self-experience (the psychometric scales are listed in Table 1 in Parnas et al. [2005])</td>
<td>Group 1 and schizotypal disorder group were indistinguishable in terms of anomalous self-experience High scores on the subscales of perplexity, self-disorders, and perceptual disorders discriminated schizophrenia spectrum diagnoses (Group 1 + schizotypal disorder) from non-spectrum diagnoses</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia and other nonaffective, nonorganic psychosis (n = 51) [Group 1]</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schizotypal disorder (n = 50)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other nonpsychotic disorders (n = 50)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vollmer-Larsen et al. (2007)(^6)</td>
<td>18 hospitalized patients:</td>
<td>To test the reliability of BSABS</td>
<td>Cohen’s kappa</td>
<td>Good interrater reliability can be achieved using BSABS</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia (n = 8)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schizotypal disorder (n = 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Personality disorder (n = 4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Affective disorder (n = 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Sample</td>
<td>Purpose</td>
<td>Instrument to assess anomalous self-experience</td>
<td>Results</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Raballo &amp; Parnas (2011)</td>
<td>218 members of 6 extended multiplex families, initially assessed in the Copenhagen Schizophrenia Linkage Study (see Matthysse et al. [2004])</td>
<td>To test (1) the distribution of anomalous self-experiences among the subgroups, (2) the effect of anomalous self-experiences on the risk of belonging to the different subgroups, and (3) the effect of experimental grouping and concomitant psychopathology (negative symptoms and sub-psychotic formal thought disorder) on the risk of experiencing anomalous self-experiences</td>
<td>BSABS + abbreviated Personality Disorder Examination&lt;sup&gt;66&lt;/sup&gt;</td>
<td>Compared to the reference group (no mental illness), anomalous self-experiences were associated with schizotypal personality disorders, other personality disorders, and no mental illness with schizotypal traits. The relative risk increases from no mental illness with schizotypal traits to other personality disorder to schizotypal personality disorder. The odds of anomalous self-experiences increased as a function of the diagnostic category, independently of sociodemographics and concomitant psychopathology.</td>
</tr>
<tr>
<td>Raballo et al. (2011)&lt;sup&gt;67&lt;/sup&gt;</td>
<td>305 members of 6 extended multiplex families, initially assessed in the Copenhagen Schizophrenia Linkage Study (see Matthysse et al. [2004])&lt;sup&gt;65&lt;/sup&gt;</td>
<td>To examine the distribution of anomalous self-experiences in the four diagnostic groups</td>
<td>BSABS (sections C + D)</td>
<td>Diagnosis of schizophrenia and schizotypal personality disorder predicted higher levels of anomalous self-experiences. Anomalous self-experiences discriminated schizophrenia spectrum from non-spectrum mental illness and no mental illness.</td>
</tr>
<tr>
<td>Parnas et al. (2011)&lt;sup&gt;68&lt;/sup&gt;</td>
<td>ICD-10: Schizophrenia and other nonaffective, nonorganic psychoses (n = 51) Schizotypal disorder (n = 50) Other nonpsychotic disorders (n = 50)</td>
<td>To examine if baseline scores of anomalous self-experiences in patients, initially diagnosed with nonpsychotic disorders at first-admission,&lt;sup&gt;62&lt;/sup&gt; predict later schizophrenia spectrum diagnosis at 5-year follow-up</td>
<td>All interview components were repeated at follow-up (see Parnas et al. [2005])&lt;sup&gt;62&lt;/sup&gt;</td>
<td>High scores on the subscales of self-disorders and perplexity predicted subsequent schizophrenia spectrum diagnosis in the patient group initially diagnosed outside the schizophrenia spectrum.</td>
</tr>
</tbody>
</table>
that were explicitly designed to target anomalous self-experience. The BSABS is a comprehensive, semi-structured interview scheme that assesses various anomalies of experience (affective, volitional, cognitive, perceptual, and bodily), each illustrated by patient-derived prototypical statements. The empirical studies during this early period are presented in Table 1. The BSABS, used in many of those studies, has been found to have satisfactory reliability.63

A central, joint finding of the empirical studies was that self-disorders aggregated selectively among the first-admission patients diagnosed with ICD-10 schizophrenia and schizotypal disorder as compared to patients with other psychiatric diagnoses.62 In a five-year follow-up of this particular clinical sample, high levels of self-disorders at baseline in patients with a first-admission diagnosis outside the schizophrenia spectrum predicted subsequent diagnostic transition into the schizophrenia spectrum; by contrast, the Positive and Negative Syndrome Scale scores on the canonical dimensions of schizophrenia symptomatology were unpredictable.68 In another study, which compared a group of patients with residual/remitted schizophrenia to a group of remitted psychotic bipolar patients, a significant aggregation of self-disorders was found in the former group.61 The selective aggregation of self-disorders within the schizophrenia spectrum was replicated in a large population sample comprising six extended families at high genetic risk for schizophrenia.65 The individuals with DSM-III-R schizophrenia or schizotypal personality disorder proved to have higher levels of self-disorders than the individuals with other psychiatric diagnoses or those with no clinical diagnosis.64 Most interestingly, when the healthy control group (note that all subjects were related to a schizophrenia proband) was later divided into those individuals exhibiting one or few schizotypal features (but without qualifying for any psychiatric diagnosis) and those completely free of schizotypal traits, it was found that the former group scored significantly higher on the self-disorders scale—a finding consistent with the view of self-disorders as an aspect of vulnerability.67

Finally, Parnas and colleagues69 applied the concept of self-disorders to the data from the Copenhagen High-Risk Project—in particular, by selecting the items from the premorbid Minnesota Multiphasic Personality Inventory assessment that, if voiced as a complaint in a clinical context, would trigger an in-depth assessment of a corresponding EASE-item (see next section). This MMPI-derived self-disorder scale (Cronbach's alpha > 0.9) successfully discriminated a lifetime diagnostic outcome of schizophrenia spectrum disorders (i.e., schizophrenia and schizotypal personality disorder) versus no mental illness among the genetically predisposed individuals.

### Table 1

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample</th>
<th>Purpose</th>
<th>Instrument to assess anomalous self-experience</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parnas et al. (2014)69</td>
<td>Children from the Copenhagen High-Risk Project, with high genetic risk for schizophrenia</td>
<td>To assess predictive value of MMPI-derived, rational self-disorder scale with respect to lifetime diagnosis of schizophrenia spectrum vs. no mental illness</td>
<td>MMPI-derived, self-disorder scale</td>
<td>Self-disorder scale significantly predicted schizophrenia spectrum outcome</td>
</tr>
</tbody>
</table>

EASE-BASED EMPIRICAL RESEARCH

In 2005, a semi-structured psychometric instrument for a qualitative and quantitative assessment of the anomalies of self-experience—the Examination of Anomalous
Self-Experience (EASE)—was published. Senior psychiatrists from three European countries collaborated in constructing the EASE, which also included conceptual input from philosophy of mind and phenomenology. The selection of the scale items was based on the combined experience of clinical units for first-admitted patients, reflected detailed reviews of English, French, German, and Scandinavian psychopathological literature, and took into account the data collected in the available pre-EASE empirical studies (see Table 1). The construction process also included the authors’ joint discussions of videotaped psychopathological assessments, conducted individually by the EASE’s Danish authors, of 40 selected patients with potential self-disorders.

The EASE contains 57 main items, sometimes divided into subtypes. Each item is briefly defined and illustrated by prototypical examples of complaints. The items are aggregated into five rationally cohesive sections: (1) Cognition and Stream of Consciousness, (2) Self-Awareness and Presence, (3) Bodily Experiences, (4) Demarcation/Transitivism, (5) Existential Reorientation. The EASE exhibits high inter-rater reliability among trained and experienced psychiatrists or clinical psychologists.

Several studies have now explored the association of EASE scores with psychiatric diagnoses (see Table 2). In samples comprising patients with ICD-10 or DSM-IV schizophrenia, schizotypal disorder, and other non-spectrum disorders.

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample</th>
<th>Purpose</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haug et al. (2012)⁷⁵</td>
<td>DSM-IV (all first referrals for adequate treatment): Schizophrenia spectrum psychosis (n = 57) Bipolar psychosis (n = 21) Other psychotic disorders (n = 13)</td>
<td>To test the discriminatory power of EASE with respect to schizophrenia and non-schizophrenia spectrum psychosis</td>
<td>Anomalous self-experiences, measured by the total EASE score, discriminate schizophrenia spectrum psychosis (mean EASE = 25.3) from bipolar psychosis (mean EASE = 6.3) and other psychotic disorders (mean EASE = 11.5)</td>
</tr>
<tr>
<td>Raballo &amp; Parnas (2012)⁷¹</td>
<td>ICD-10 (all first admissions for suspected psychotic condition): Schizophrenia (n = 19) Schizotypal disorder (n = 8) Non–schizophrenia spectrum disorders (n = 9)</td>
<td>To test the discriminatory power of EASE with respect to schizophrenia and non-schizophrenia spectrum disorders⁷⁴</td>
<td>Anomalous self-experiences, measured by the total EASE score, discriminate schizophrenia (mean EASE = 21.4) and schizotypal disorder (mean EASE = 17.0) from non–schizophrenia spectrum disorders (mean EASE = 5.7)</td>
</tr>
<tr>
<td>Nordgaard &amp; Parnas (2014)⁷²</td>
<td>DSM-IV (all first-admission patients): Schizophrenia spectrum psychosis (n = 46) Schizotypal personality disorder (n = 22) Other mental disorders (n = 32)</td>
<td>To test (1) the discriminative power of EASE with respect to schizophrenia spectrum (schizophrenia spectrum psychosis and schizotypal personality disorder) and non-spectrum disorders, and (2) the difference in EASE scores of schizophrenia spectrum psychosis and schizotypal personality disorder</td>
<td>Anomalous self-experiences, measured by the total EASE score, discriminate schizophrenia spectrum disorders (schizophrenia spectrum psychosis and schizotypal personality disorder) from other mental disorders (mean EASE = 8.1) No difference was found between the total EASE scores of schizophrenia spectrum psychosis (mean EASE = 19.6) and schizotypal personality disorder (mean EASE = 17.8)</td>
</tr>
</tbody>
</table>

| a Schizophrenia, schizophreniform, and schizoaffective disorder. | b Bipolar disorder I and bipolar disorder NOS. | c Delusional disorder and psychosis NOS. | d Various affective disorders. |

DSM, Diagnostic and Statistical Manual of Mental Disorders; EASE, Examination of Anomalous Self-Experience; ICD-10, International Classification of Diseases, 10th rev.; NOS, not otherwise specified.
Table 3

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample</th>
<th>Purpose</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Škodlar et al. (2010)76</td>
<td>DSM-IV and ICD-10: Schizophrenia (n = 25)</td>
<td>To test the correlation between EASE scores and suicidality</td>
<td>A correlation was found between EASE domain 2 scores and suicidal plans and ideation, and solitude and inferiority feelings</td>
</tr>
<tr>
<td>Møller et al. (2011)71</td>
<td>25 first-episode psychosis patients</td>
<td>To estimate the internal consistency, overall interrater correlation, and item interrater agreement of EASE</td>
<td>The EASE had good to excellent internal consistency across the two raters and an overall interrater correlation above .80. The average kappa of the EASE was .65, ranging from .51 to .73 over its five domains; kappa values at an item level were very good in 9 items, good in 20 items, moderate in 11 items, and fair in 4 items.</td>
</tr>
<tr>
<td>Haug et al. (2012)77</td>
<td>DSM-IV (all first-admission patients):</td>
<td>To test if EASE scores are correlated with suicidality in first-episode schizophrenia spectrum disorders and if such a correlation is mediated by depression</td>
<td>A correlation was found between suicidality, depression, and anomalous self-experiences. The effect of anomalous self-experiences, measured as the total EASE score, on current suicidality was mediated by depression.</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia (n = 38)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schizoaffective disorder (n = 9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schizophreniform disorder (n = 2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haug et al. (2012)78</td>
<td>DSM-IV (all patients in early phase of treatment):</td>
<td>To explore cross-sectional correlation patterns between EASE scores and neurocognitive functions (psychomotor speed; working, visual, and verbal memory; and executive functions)</td>
<td>A correlation was found between the total EASE score and verbal memory (i.e., high total EASE scores were associated with impaired verbal memory). No other significant correlations were found.</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia (n = 57)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nelson et al. (2012)74</td>
<td>49 patients with ultra-high risk for psychosis and 52 healthy controls</td>
<td>To (1) compare the distribution of anomalous self-experiences in ultra-high-risk patients vs. controls, and (2) test if baseline EASE scores in the ultra-high-risk group were predictive of later transition to psychosis at follow-up (mean = 569 days)</td>
<td>Anomalous self-experiences aggregate in the ultra-high-risk patients (EASE mean = 42.02) but not in the control group (EASE mean = 2.37). At follow-up, 13 ultra-high-risk patients had transitioned to psychosis (26.5% of the original sample); the total EASE score, the EASE domain 1 score, and the EASE domain 2 score were found to predict transition to a psychotic disorder.</td>
</tr>
<tr>
<td>Study</td>
<td>Sample</td>
<td>Purpose</td>
<td>Results</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Raballo &amp; Parnas (2012)⁷³</td>
<td>ICD-10 (all first admissions with a suspected psychotic condition):</td>
<td>To test the psychometric properties of EASE</td>
<td>The EASE was found to have good to excellent (.85–.90) internal consistency across the diagnostic groups and an overall excellent alpha (&gt;-.90) in the sample. Correlations between EASE total score and single domain scores, as well as inter-domain correlations, ranged from moderate to very strong.</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia (n = 19)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schizotypal disorder (n = 8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Non–schizophrenia spectrum disordersb (n = 9)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Koren et al. (2013)⁷⁹</td>
<td>82 help-seeking, nonpsychotic adolescents (aged 14–18 years)</td>
<td>To test the correlation between EASE scores and subclinical prodromal symptoms assessed with the Prodromal Questionnaire⁸⁰</td>
<td>The EASE was found to be moderately correlated to the Prodromal Questionnaire's positive and negative symptom scales, and modestly to its disorganized scale.</td>
</tr>
<tr>
<td>Nelson et al. (2013)⁵⁴</td>
<td>42 patients with ultra-high risk for psychosis</td>
<td>To test the correlation between EASE scores and borderline personality pathology</td>
<td>No correlation was found between EASE scores and borderline personality pathology.</td>
</tr>
<tr>
<td>Haug et al. (2014)⁸¹</td>
<td>DSM-IV (all referred for first adequate treatment):</td>
<td>To assess cross-sectional correlation patterns between several psychopathological and social-function measures</td>
<td>Correlations were found between EASE scores and social dysfunction.</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia spectrum psychosis⁹ (n = 56)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bipolar psychosisd (n = 20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nordgaard &amp; Parnas (2014)⁷²</td>
<td>DSM-IV (all first-admission patients):</td>
<td>To test correlations between EASE scores and other measures of psychopathology, IQ, and duration of untreated psychosis and illness</td>
<td>Positive correlations were found between EASE scores and positive and negative syndromes, formal thought disorders, and disturbances of perception. No correlation was found between EASE scores and duration of untreated psychosis, duration of illness, or IQ (Cronbach’s alpha of EASE = .903).</td>
</tr>
<tr>
<td></td>
<td>Schizophrenia spectrum psychosis (n = 46)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Schizotypal personality disorder (n = 22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other mental disorders (n = 32)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

⁷³ The high mean EASE total score of the ultra-high-risk group reflects, most likely, a methodological approach different from the one used in the other EASE studies reported in this table. In the latter studies, only main EASE items were included and analyzed (i.e., when sub-items occurred, they were collapsed into their main items), and all “questionably present” items were systematically recoded as “not present.”

⁷⁹ Various affective disorders.

⁹ Schizophrenia, schizophreniform, and schizoaffective disorder.

⁹ Bipolar disorder 1 and bipolar disorder NOS.

DSM, Diagnostic and Statistical Manual of Mental Disorders; EASE, Examination of Anomalous Self-Experience; ICD-10, International Classification of Diseases, 10th rev.; NOS, not otherwise specified.
conclusions are of a different kind than the self-related problems characteristic of borderline personality disorder and perhaps also other personality disorders outside the schizophrenia spectrum. Sass and colleagues conducted an interesting theoretical-comparative study of the similarities and differences between selected literature reports on depersonalization and the anomalous self-experiences identified through the EASE. They concluded that erosion of the first-person perspective appeared specific to schizophrenia.

CONCLUSIONS AND IMPLICATIONS
The presented research supports the notion of disturbances of specific structures of consciousness as important phenotypes of the schizophrenia spectrum disorders, thus corroborating the clinical intuitions of those who first identified them. A self-evident conclusion is that much empirical and conceptual work lies ahead of us. Most importantly, the temporal stability of self-disorders and their trait-like status need systematic longitudinal investigations. In our view, the central issues concern the nosological status and the diagnostic boundaries of schizophrenia and schizotypal conditions, along with the consequences of understanding how important self-disorders in understanding these phenomena. For many years, we have witnessed a rebirth of a unitary view of psychosis, collapsing schizophrenia and psychotic affective illness into one disorder. This assumption is typically legitimized by findings of certain genetic and neurocognitive commonalities, and it is supported by the graded distributions of positive and negative symptoms (assessed by standard checklists), with absent “points of rarity.” As we have recently argued at some length elsewhere, however, the original prototypical (found) definition of schizophrenia was not based on a number of specific psychotic symptoms but rather relied on the identification of a characteristic trait or gestalt, predominantly marked by peculiarities or strangeness in the expressive, communicative, and symbolic spaces. Many metaphors were employed or even invented to describe this particular gestalt—for example, discordance, intra-psychic ataxia, autism, loss of vital contact with reality, and cognitive dysmetria. This gestalt is intrinsically elusive and resists any simple, straightforward attempt to define it.

In characterizing a phenotypic gestalt for schizophrenia, we need not only to take into account its expressive, external features or signs, but to grasp a certain whole that is jointly constituted by its “outer” and the “inner” aspects. We must recognize that the patient’s structures of subjectivity are profoundly different, even though we may not be able to verbalize this difference in precise terms. In other words, we not only register the external signs but also sense an inner change (what might be called the symptoms). What we sometimes perceive as incomprehensible or strange in the interaction with such a patient is therefore not solely due to a disorder of expressivity, operating as a somewhat autonomous series of signs (e.g., inappropriate affect). Rather, the perceived strangeness is also reflective of, and codetermined by, the altered structures of subjectivity. It is in this particular context that a phenomenologically coherent notion of a disorder of the self, itemized into its multiple empirical aspects in the EASE scale, permits a more focused, targeted, and explicitly articulated (and therefore reliable) investigation and description of the psychopathological aspects of the schizophrenic gestalt. Until now, these dimensions of the gestalt have been dismissed as too “atmospheric,” “intuitive,” or “subjective” to be useful either scientifically or clinically. The notion of self-disorder, however, presents a more specific, articulated, and robust demarcation of the schizophrenia spectrum disorders. Not only is this demarcation based on central psychopathological considerations, but it can play a crucial role in etiological and pathogenetic research. The diagnostic notion of self-disorder also has important implications clinically—for
Finally, it seems to us that psychotherapeutic approaches that are intimately informed about the specific nature of the patient’s suffering are likely to have better therapeutic success.90

Declaration of interest: The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the article.

REFERENCES


