Doctoral Dissertation

Self-disorders and Psychopathology

A clinical-phenomenological exploration of schizophrenia spectrum disorders

Mads Gram Henriksen

Doctoral dissertation for the degree in medical science

Self-disorders and Psychopathology

A clinical-phenomenological exploration of schizophrenia spectrum disorders

Mads Gram Henriksen, PhD
Center for Subjectivity Research, Department of Communication, Faculty of Humanities, University of Copenhagen
Mental Health Center Amager, University Hospital of Copenhagen

The Faculty of Health and Medical Sciences at the University of Copenhagen has accepted this dissertation for public defence for the doctoral degree in medical science.

Copenhagen, September 13, 2022, Bente Merete Stallknecht, Dean of Faculty

The defence takes place on Friday, December 9, 2022, at 14:00, at the University of Copenhagen, Faculty of Humanities, Karen Blixens Vej 8, 2300 København, Room 23.0.49.

Leader of the defence
Professor Emeritus Erik Lykke Mortensen, University of Copenhagen

Assessment committee
Professor Sidse Arnfred, University of Copenhagen (chair)
Professor Thomas Fuchs, University of Heidelberg (1st opponent)
Professor Richard Bentall, University of Sheffield (2nd opponent)

ISBN 978-87-974265-0-0

Acknowledgement

This doctoral dissertation is a result of nearly a decade of interdisciplinary research in psychopathology. The research presented here was conducted between 2013-2021 at Center for Subjectivity Research, Faculty of Humanities, University of Copenhagen, and at Mental Health Center Hvidovre (2013-2017), Mental Health Center Glostrup (2017-2021), and Mental Health Center Amager (2019-2021), which are all university hospitals affiliated with the University of Copenhagen. After obtaining an extended master's degree in Philosophy, I was enrolled as PhD student in Psychiatry (2008-2011) and later as Postdoc (2013-2017) at the University of Copenhagen. From 2017 onwards, I worked as Senior Researcher at the university hospitals mentioned above, and, since 2018, as Associate Professor of Philosophy of Psychiatry at the Center for Subjectivity Research and the Philosophy Section, University of Copenhagen. In all these years, my positions have been divided between psychiatry and philosophy, teaching, supervising, and researching at both the psychiatric hospitals and the philosophy department. While this has involved a great deal of commuting, it has also offered a unique opportunity for interdisciplinary research. For that I am deeply grateful. I hope the research presented here bears a mark of that interdisciplinary effort.

This dissertation is a result of long-lasting collaborative work. Therefore, I would like to express my gratitude to a number of people. I would like to thank Prof. Josef Parnas, whose humanistic, scholarly, and interdisciplinary approach to psychiatry has been a continuous guide and source of inspiration for me. I would also like to thank Prof. Dan Zahavi, whose work in phenomenology stands like a beacon, radiating conceptual and theoretical clarity and constantly calling me to sharpen my own thoughts and arguments. A special thanks to Dr. Julie Nordgaard for more than a decade of inspiring and balanced collaborative work, always enriching our psychopathological discussions with clinical insight and an unwavering, humanistic focus on the patients. Furthermore, I would like to thank my remaining co-authors: Alessandro Salice, Andrea Raballo, Borut Škodlar, and Lars Siersbæk Nilsson. Our collaboration has been a true privilege for me. Additionally, I would like to express my gratitude to Dr. Lennart Jansson for always generously sharing his vast knowledge of psychopathology and psychiatric literature, and to Prof. Raben Rosenberg for his support and guidance.

Finally, I would like to thank my family and friends for your support, and especially Eva, Jonathan, and Benjamin for your treasured presence and endless patience and encouragement.

Psychopathologic concepts are built up on observation and have to be continuously measured and tested against it. In the main, we expect them master the nature of clinical reality, which is their starting-point, goal, and rationale. All that we have set out above needs to be seen as guide posts for clinical excursion; no one will expect such theoretical distinctions to function with unfailing precision in every individual case. There always remains some instance where we can only apply these concepts hypothetically without reaching any really satisfactory conclusion. If anyone thinks this struggle to establish some concepts is a useless one, he must be prepared to forego the idea of any scientific psychopathology.

Kurt Schneider, *Clinical Psychopathology*

Contents

List of doctoral dissertation articles

I. Parnas, J., Henriksen, M.G. (2016). Schizophrenia and mysticism: A phenomenological exploration of the structure of consciousness in the schizophrenia spectrum disorders. *Consciousness and Cognition* 43: 75-88.

II. Henriksen, M.G., Parnas, J., Zahavi, D. (2019). Thought insertion and disturbed for-me-ness (minimal selfhood) in schizophrenia. *Consciousness and Cognition* 74, 102770, https://doi.org/10.1016/j.concog.2019.102770.

III. Parnas, J., Henriksen, M.G. (2014). Disordered self in the schizophrenia spectrum: A clinical and research perspective. *Harvard Review of Psychiatry* 22(5): 251-265.

IV. Henriksen, M.G., Raballo, A., Nordgaard, J. (in press). Self-disorders and psychopathology: A systematic review. *The Lancet Psychiatry*.

V. Henriksen, M.G., Parnas, J. (2014). Self-disorders and schizophrenia: A phenomenological reappraisal of poor insight and noncompliance. *Schizophrenia Bulletin* 40: 542-547.

VI. Salice, A., Henriksen, M.G. (2021). Disturbances of shared intentionality in schizophrenia and autism. *Frontiers in Psychiatry* 11, doi: 10.3389/fpsyt.2020.570597.

VII. Henriksen, M.G., Nilsson, L.S. (2017). Intersubjectivity and psychopathology in the schizophrenia spectrum: Complicated 'we', compensatory strategies, and self-disorders. *Psychopathology* 50: 321-333.

VIII. Škodlar, B., Henriksen, M.G. (2019). Toward a phenomenological psychotherapy for schizophrenia. *Psychopathology* 52: 117-125.

Article VII was part of Lars Siersbæk Nilsson's PhD thesis *The Disrupted "We": A New Look at Intersubjectivity in Schizophrenia Spectrum Disorders*, which was submitted to the Graduate School of Health and Medical Sciences, University of Copenhagen, on Oct 12, 2017.

None the of other articles has previously been submitted with the intention of obtaining an academic degree.

1. Preamble: On concepts in psychopathology

Psychopathology is the study of anomalous or abnormal experiences, expressions, and behaviour, and it forms the bedrock of psychiatry as a medical discipline. In the last century, we witnessed unprecedented technological and methodological breakthroughs that opened up new avenues of etiological and pathogenetic research in psychiatry (e.g., neuroimaging techniques, molecular genetics, machine learning etc.), resulting in an astonishing and bewildering number of empirical findings. However, the promise (e.g., Andreasen 1984) that such research domains would uncover the biological causes of mental disorders and develop new, effective tools for diagnosis and treatment has not been kept. The last 40 years of dedicated research in biological psychiatry has not led to major breakthrough in the diagnostic assessment or treatment of psychiatric patients, whose care is the raison d'être of the discipline. Today, this promise, though still spoken, sounds more like a phantasy, resting in part on the questionable assumption that mental disorders are some sort of 'natural kinds', readily corresponding to structures of the natural world. For example, Andreasen claimed, "People suffering from mental illness suffer from a sick or broken brain" (1984, 8) and Torrey argued that schizophrenia "is firmly and unequivocally established to be a brain disease" (2006, 130). What we have learned, however, is that the "nature" of these disorders is far more complex than was imagined years ago. The genetic architecture of schizophrenia has proven to be a highly complex, polygenic, and heterogenous (Schizophrenia Working Group of the Psychiatric Genomics Consortium 2014; cf. Henriksen et al. 2017), and several environmental risk factors have been identified (Matheson et al. 2011; Stilo & Murray 2019). Yet, knowledge of genotype-environment interactions (GxE), e.g., environmental effect on epigenetics and genetic effect on environmental exposure (rGE), as well as knowledge of the etiopathogenesis of schizophrenia remains limited.

Unfortunately, psychiatry's decade-long focus on biology contributed to downplay the importance of the human psyche and subjective experiences—as Winokur and Clayton put it, "We are not interested in the 'psyche.' We are interested in specific psychiatric illnesses" (1986, x). From a biomedical perspective, this is understandable. The laboratory-based discovery of the syphilitic spirochete (treponema pallidum) as the cause of general paresis (neurosyphilis) and the development of a chemical compound that could treat it (arsphenamine) infused optimism that biological roots of other mental disorders also would be discovered and become targetable in treatment. Had this optimism materialized, then detailed knowledge of the patients' psyche and subjective experiences would to some extent be superfluous as it today is the case in the diagnosis

and treatment of neurosyphilis. However, a consequence of the intense focus on biology is that psychopathology, the once central discipline of psychiatry, has become neglected and marginalized in psychiatric research (e.g., Andreasen 2007; Parnas 2011; 2017). Today, traditional psychopathology and diagnostic categories are even regularly considered a cause of lack of scientific progress in psychiatry. Projects such as the Research Domain of Criteria (RDoC), which the US National Institute of Mental Health launched in 2009, circumvent traditional diagnostic categories and investigates instead mental disorders on different levels (e.g., genomics, neural circuits, behaviour) and domains (e.g., negative/positive valence, arousal/regulatory, cognitive systems), spanning from normal to abnormal functioning. In the dynamic structures or matrixes of RDoC, the psyche and subjective experience play only a minor role.

Today, dimensional and trans-diagnostic approaches to mental disorders such as RDoC or HiTOP (Hierarchical Taxonomy of Psychopathology), which challenge the boundaries of traditional psychopathological concepts (e.g., diagnostic categories or symptoms), are considered at the forefront of psychiatric research. In this contemporary context, this doctoral dissertation on certain aspects of the psychopathology of schizophrenia may seem archaic and out-of-touch with current research trends and methods. However, one should keep in mind that dimensional approaches inevitably are dimensions of *something*, and that this *something* (e.g., psychosis, hallucination or self-disorders) too must be conceptually defined, i.e., delineated from other phenomena, if the investigation is to make sense. In *General Psychopathology*, Jaspers goes as far as stating that "only philosophical clarity can make reliable, empirical research possible" (1997, 46). Jaspers' claim is not that philosophers should practise medicine or conduct empirical research. Rather, his point is perhaps best grasped in light of Nagel's argument that any successful naturalization, e.g., the physicalist attempt to reduce consciousness to the brain, presupposes a clear conception of what is being reduced (Nagel 1974, 437). Without a clear conception, empirical search for the natural bases of consciousness is likely to be led astray or result in a naturalization of something that differs from the original target of naturalization, viz. consciousness in its full concreteness and complexity (Zahavi & Parnas 2009, 83). The situation is somewhat similar in psychiatry. Unless we have a clear conception of what we want to examine and this includes knowledge of how our particular research object can be adequately examined, our empirical research is not likely to yield clear results.

In 21st century psychiatry, the need for conceptual clarity has not evaporated; in fact, it remains crucial in any psychopathological investigation. Most importantly, the task of defining

psychopathological concepts is not merely of academic or theoretical value, an objective for a selected niche of psychiatric research. Clinicians, too, must be knowledgeable not only of numerous psychopathological phenomena but also of how these phenomena are defined, i.e., distinguished from each other, and that, again, demands a rigorous conceptual framework. If the clinician or researcher, assessing psychopathology, is not intimately familiar with these phenomena, the diversity of their clinical manifestations, and how they essentially are separated from each other, he or she is likely to overlook some of these phenomena or misjudge them in the clinical encounter with the patient. This, in turn, may have consequences for the accuracy of the allocated diagnosis, the effectiveness of the chosen treatment that is based on the diagnosis, and, in the case of research, for the quality of the collected data (Jansson & Nordgaard 2016; Henriksen et al., in press-b). Mere familiarity with the limited number of symptoms and signs included as diagnostic criteria in ICD-10 (WHO 1992) or DSM-5 (APA 2013) is not a safeguard. As stated in ICD-10, the diagnostic guidelines form "a reasonable basis for defining *the limits* of categories in the classification of mental disorders" (WHO 1992, 9; italics added), i.e., the diagnostic criteria serve to *delimit* – not exhaustively *describe* – the psychopathology of the different mental disorders. Although the operational diagnostic manuals not initially were intended to function as textbooks of psychiatry (e.g., APA 1980, 9; 1987, xxv; WHO 1992, 9), the manuals nonetheless came be viewed as such (Andreasen 2007)—e.g., by being given near total authority in teaching programs and research and by becoming a foundation for contemporary textbooks that regularly only include psychopathology listed in the diagnostic manuals. In this context, it is unsurprising that DSM-5 finally declared itself "a textbook" (APA 2013, xli). A problem with this move from a diagnostic manual, which *delimits* mental disorders from each other, to a manual, which also functions as a *textbook* and thus *describes* the psychopathology of the mental disorders, is that knowledge of the wealth of psychopathological phenomena not included in these manuals gradually is fading away, prompting Parnas to speak of a "disappearing heritage" (Parnas 2011).

While invaluable insights still can be harvested from reading classical psychopathological literature, many psychopathological concepts remain also here insufficiently defined. "If only our concepts were clear", as Jaspers remarked (Jaspers 1997, 35). The difficulty in defining these concepts lies in the nature of the psychopathological phenomena and their variability of clinical manifestations. Nonetheless, this intrinsic difficulty should not lure us into a position of uncritical acceptance, resting assured that the psychopathological concepts of our time are, in fact, well-defined, representing some sort of historical peak of accumulated psychopathological

knowledge. This would be a mistake. Nor should we embrace a position in which we simply assume that these concepts principally cannot be better defined, making any effort to that effect futile. This too would be a mistake. Rather, we should listen to this difficulty at the heart of psychopathology itself and hear it as a call that we are obliged answer. As Meehl once put it concerning the fuzziness of concepts in psychopathology,

> [the] proper stance to take in respect to open concepts in personology and clinical practise it to *realize* that they are 'open', and in the light of that realization, to exercise a mixture of imagination and rigor, conjecture and criticality that will help us to deal with such open 'concepts' in the daily decision process, meanwhile maintaining a healthy linkage of clinical practise with the research task that aims to 'close' some of our open concepts a bit more (Meehl 1977, xiv).

In other words, we must critically reflect upon the psychopathological concepts that have been handed down to us through tradition, refrain from taking their validity for granted, question their applicability in and across clinical situations, and ceaselessly strive toward clearer, clinically applicable definitions of these very concepts. If one is not willing to engage in this of kind conceptual work, one must, as Schneider poignantly put it, "be prepared to forego the idea of any scientific psychopathology" (Schneider 1959, 116).

2. Introduction: Schizophrenia as a Self-disorder[1]

In ICD-10 and DSM-5, schizophrenia is defined as a non-organic, non-substance-induced, and non-affective psychotic disorder. The polythetic diagnostic criteria of schizophrenia place a strong emphasis on the presence of psychotic symptoms (e.g., delusions, hallucinations, and severe formal thought disorders), and neither ICD-10 nor DSM-5 makes any reference to a disordered self. Yet, such a reference can be found in DSM-III-R: "The sense of self that gives the normal person a feeling of individuality, uniqueness, and self-direction is frequently disturbed in Schizophrenia. This is sometimes referred to as a loss of ego boundaries, and frequently is evidenced by extreme

[1] In this dissertation, the concept of 'Self-disorder' (in singular, first letter capitalized) designates the fundamental disturbance of the schizophrenia spectrum, whereas the concept of 'self-disorders' (in plural, first letter in lower case) designates a range of anomalous self-experiences that are considered expressions or aspects of the fundamental disturbance. This potential conceptual confusion is addressed in the discussion section.

perplexity about one's own identity and the meaning of existence" (APA 1987, 189; cf. WHO 1974, 27). In ICD-11, "distortions of self-experiences" (i.e., self-disorders) have been introduced in the definition of passivity phenomena. Despite their decade-long absence in the era of ICD-10, DSM-IV (APA 1994) and DSM-5, psychopathological research on self-disorders in schizophrenia has from time to time been conducted and especially in the last two decades, this research direction has experienced something like a new dawn. The basic idea that schizophrenia involves a disorder of the self is, however, not new. In many foundational texts on schizophrenia, a certain disintegration of the self was constitutively linked to the disorder. Yet, the specific character of the Self-disorder was often insufficiently described and defined, and empirical corroboration has been almost entirely lacking. In the following, some of the most important literature on this topic is briefly considered. Parts of this literature is also addressed in articles III and IV.

Already Bleuler, who coined the concept of schizophrenia (Bleuler 1908), replacing Kraepelin's concept of dementia praecox (Kraepelin 1899), drew attention to disorders of the self (or the ego or person). Bleuler described these disorders both at the level of 'fundamental symptoms' (alongside ambivalence, autism, affective disturbances, and formal thought disorders, etc.) and at the level of 'accessory symptoms' (alongside delusions, hallucinations, catatonia, etc.). Unlike the state-like, psychotic 'accessory symptoms', which also are found in other psychotic disorders, Bleuler considered the trait-like, non-psychotic 'fundamental symptoms' as diagnostically specific for schizophrenia (Bleuler 1950, 304). In schizophrenia, Bleuler argued, "the ego is never entirely intact" (ibid., 71). He offered several examples of alterations of the ego, spanning from apparently non-psychotic experiences of, say, inability to direct one's thoughts to delusions and hallucinations (ibid., 143-147). These examples were accompanied by Bleuler's reflections, which sought to grasp these symptoms in terms of parts of the 'ego' or 'personality' splitting off and becoming, to some extent, alien to the patient (ibid., 143, 146-147). Crucially, Bleuler's descriptions of the splitting of the ego should not be conflated with psychological theories of dissociation that imply a theory of causation, e.g., dissociation as a trauma-related division of personality (e.g., Moskowitz et al. 2019, 22). By contrast, Bleuler's concept of splitting (or dissociation) implies no theory of causation (Pruyser 1975, 28). Rather, Bleuler's descriptions of the split ego should be grasped in relation to his concept of 'double-entry bookkeeping', which is addressed in articles I and V. For example, he pointed out that although some patients could be preoccupied with their hallucinations, they "have simultaneously as exact a perception of reality as an attentive normal person", leading him to speak of co-attentive personalities, "operating side-by-

side", probably never "completely separated from each other", and eventually of the "multiple bookkeeping" of personality (Bleuler 1950, 147). Nonetheless, the more precise nature of the ego, its alterations, and its relation to double bookkeeping remain absent in his seminal textbook.

Another insightful contribution to the study of self-disorders in schizophrenia is found in Gruhle's work (Berze & Gruhle 1929). Gruhle argued that the 'schizophrenic basic mood' (*Schizophrene Grundstimmung*) is a primary symptom, manifesting as a Self-disorder (*Ichstörung*). He specified that what is disturbed in this Self-disorder is not primarily the content of various mental states but the self-feeling (*Ichgefühl*), self-content (*Ichgehalt*) or self-awareness (*Ichbewusstsein*) – these concepts appear to be used somewhat interchangeably in his text – that usually accompanies all mental acts and states (ibid., 90). This disturbed self-feeling, Gruhle argued, was the foundation of the phenomena of 'mental automatisms' (e.g., thought insertion or withdrawal and passivity phenomena), which i.a. de Clérambault had described in French psychiatric literature (e.g., de Clérambault 1920; 1925).

Schneider collected some of these psychotic symptoms under the notion of 'first-rank symptoms' (Schneider 1939; 1950) and argued that they had diagnostic specificity for schizophrenia if no somatic illness could be found (Schneider 1959, 134). Symptoms considered by Schneider as having the status of 'first-rank' were included in the Present State Examination in the 1960s (e.g., Wing et al. 1967) and in the Research Diagnostic Criteria in the 1970s (e.g., Spitzer et al. 1978) before finding their way into the operational diagnostic manuals of DSM-III (APA 1980), its subsequent editions, and ICD-10 (WHO 1992; cf. Jansson 2019, 729).[2] Here, first-rank symptoms were defined predominately at the level of *content*, missing Schneider's claim that most first-rank symptoms presuppose a "radical qualitative change" of consciousness (Schneider 1959, 100; cf. Nordgaard et al. 2019). As has been suggested elsewhere, a reason for this omission may be an imprecise translation of Schneider's text (Nordgaard et al. 2020). In the English translation, the core of this radical qualitative change of consciousness is described as "the 'lowering' of the 'barrier' between the self and the surrounding world, the loss of the very contours of the self", which Schneider also describes as "loss of identity" and "ego-disturbance" (Schneider 1959, 134). Yet, in the German original, Schneider is not describing a lowering of some barrier between the self

[2] In the English editions of the operational diagnostic manuals, the notion of first-rank symptoms only appears in DSM-IV (APA 1994, 277), albeit the symptoms, which Schneider ascribed the status of 'first-rank', strongly influenced the conception and diagnosis of schizophrenia from DSM-III and onwards. The diagnostic importance of first-rank symptoms was highest in ICD-10, where the presence of 1 such symptom for a 1-month period was sufficient to make the diagnosis of schizophrenia. The diagnostic weight of first-rank symptoms was deemphasized in DSM-5 (APA 2013) and a similar change will occur in ICD-11.

and the world but *permeability of ego-boundaries* ("'Durchlässigkeit' der 'Ich-Umwelt-Schranke'") (Schneider 1971, 136). In other words, the ego-disturbance in schizophrenia is epitomized by transitivism, i.e., a failing experiential demarcation of self/other. Schneider does not offer a proper account of this ego-disturbance in his book, but he does offer a few important clarifications: "certain disturbances of the sense of identity are highly specific for schizophrenia. By these we mean disturbances of the sense of "I", "me and mine", which consist in feeling that what one is and what one does has passed under the direct influence of others" (1959, 120). Again, the English translation does not adequately capture what is at stake in the German original, namely that the disturbed sense of identity, of 'I', and of 'me and mine' primarily concern the *form* rather than the *content* of experience, viz. "Störungen des Icherlebnisses" (Schneider 1971, 121). In other words, what the concept of self-experience ("Icherlebnis") here signifies is not self-knowledge or self-evaluation but, as he put it, something *formal* ("etwas Formales") (Schneider 1971, 122). Although Schneider did not provide a proper account of self-consciousness and its disturbances in schizophrenia, he made a reference to Jaspers' four formal characteristics of self-consciousness (Jaspers 1997, 121-130) and added an additional, fifth characteristic, i.e., consciousness of existence (Schneider 1971, 122).

In the 1970s, Scharfetter, drawing particularly on Jaspers' and Schneider's formal characteristics of self-consciousness, developed a theory of ego-consciousness and its pathology in schizophrenia (Scharfetter 1981). It is important to mention Scharfetter's work (1996) on the *Ego Pathology Interview Schedule* (EPI) in this context, not only because it includes empirical work on ego-pathology ("self-disorders") in schizophrenia and other disorders, but also because there are some important differences between the construct of ego-pathology in the EPI and that of self-disorders in the *EASE: Examination of Anomalous Self-Experience* (Parnas et al. 2005), which forms the bedrock of much of the research presented in this dissertation. Unlike the EPI, which covers both non-psychotic and psychotic experiences and thus both trait- and state-like phenomena as well as behavioral features, the EASE focuses on *trait-like*, *non-psychotic* anomalous self-experiences.

Finally, Sass and Parnas' seminal article on the basic Self-disorder in schizophrenia was published in 2003, sparking a renewed interest in self-disorders and phenomenological psychopathology more generally. According to Sass and Parnas, the pathogenetic core of schizophrenia is a specific disturbance of the self (ipseity), consisting of two complementary distortions, i.e., hyper-reflexivity ("exaggerated self-consciousness involving self-alienation") and

diminished self-affection ("diminished intensity or vitality of one's own subjective self-presence"), and these distortions are accompanied by a disturbed 'hold' on the world ("loss of salience and stability with which objects stand out in an organized field of awareness") (Sass & Parnas 2003, 429). In short, Sass and Parnas argue that a distortion of basic self-awareness is fundamental in schizophrenia and that this distortion may underlie and unify apparently heterogenous symptom clusters such as positive, negative, and disorganized symptoms.

In 2005, the EASE scale was published, enabling a systematic assessment of non-psychotic, anomalous self-experiences. The development of the EASE scale as well as its construction and psychometric properties have been described in detail elsewhere (Parnas et al. 2005; 236f., Nordgaard & Henriksen 2019, 945f.) and are also briefly mentioned in articles III and IV. In this context, it is important to emphasize that the items included in the EASE, i.e., the self-disorders, from the outset were considered manifestations of disorders of minimal or basic self-awareness (Parnas et al. 2005, 236). Finally, it is worth emphasizing that the interest in self-disorders can be found in many other, often phenomenologically informed works (e.g., Pick 1996, Jaspers 1997; Berze 1914; Kronfeld 1922; Minkowski 1927; Laing 2010; Ey 1973; Pollack 1989; Sass 1992; Kimura 2001, Fuchs 2013; Stanghellini & Rosfort 2015).

This brief survey illustrates that the basic idea that schizophrenia constitutively is linked to a disorder of the self is as old as the schizophrenia concept itself. It also indicates several issues that need further attention. First, there is a need to clarify the more precise nature of the Self-disorder, which for the most part remains obscure in the literature. If the concept of *self* is too loosely defined, then all mental disorders may to some extent be regarded as disorders of the self (Parnas & Henriksen 2019, 465). Equally important is detailing how the self may be *disordered*. Thus, conceptual clarification of the *self* and its *disorder* is needed to key in on the specificity of the Self-disorder in the schizophrenia spectrum. Second, self-disorders have frequently been hypothesized as being specific for schizophrenia, yet empirical corroboration of this claim has been lacking for nearly a century. Third, if self-disorders are, in fact, a fundamental feature of schizophrenia, then how are self-disorders related to characteristic features of the psychopathology of schizophrenia? Apart from Sass & Parnas (2003), such considerations are also largely absent in the literature. Fourth, if self-disorders exhibit a trait-like status, how, if at all, do they affect the quality of the person's social engagement? In other words, can self-disorders shed a new light on the currently insufficiently grasped social difficulties in schizophrenia spectrum disorders? Finally, it remains unclear if and how self-disorders, which, at least on some accounts, are considered

distortions of formal aspects of minimal or basic self-awareness, can be addressed in psychotherapy. In the section below, these issues are formulated into proper research questions.

3. Purpose and research questions

The purpose of this dissertation is to provide a clinical-phenomenological analysis of self-disorders, assessing their nature, their diagnostic specificity for the schizophrenia spectrum, their relation to psychotic symptoms and social difficulties, and the possibility of addressing self-disorders in psychotherapy. To comprehensively examine these issues, five interrelated research questions need to be answered:

1) What is the nature of the Self-disorder in schizophrenia spectrum disorders?
2) Is there empirical evidence to substantiate the claim that self-disorders have diagnostic specificity for schizophrenia spectrum disorders?
3) How can self-disorders be related to characteristic features of the psychopathology of schizophrenia such as poor insight into illness and psychosis?
4) How can self-disorders be related to social difficulties in schizophrenia spectrum disorders?
5) Can self-disorders be addressed psychotherapeutically?

4. Methods

Investigating and obtaining answers to the dissertation's purpose and research questions necessitate application of different scientific methods.

Research question 2 is an empirical question, and answers to it was sought by reviewing the empirical literature on self-disorders. To this end, two Review articles are included in the dissertation (articles III and IV). The first Review was conducted shortly after publication of the first studies that reported EASE-measured self-disorders. We searched the databases PubMed, PsycINFO, and Scopus using the following terms: experience, self, and schizophrenia. We only included empirical studies assessing subjective anomalous experiences (see article III). The second Review was a Systematic Review following the PRISMA guidelines. We searched the databases PubMed, PsycINFO, EMBASE, and Google Scholar for empirical studies on self-disorders, using the following search string: *("self-disorder*" OR "anomalous self-experience" OR "basic self-disturbance") AND psychiatr**. A total of 453 records were identified. After removing duplicates

and publications that were not peer-reviewed or written in English, 203 records remained. These records were assessed for eligibility, excluding 150 records that did not meet the study's selection criteria: i) self-disorders must be assessed through a clinical interview; ii) the applied self-disorder scale must entail at least 10 items; and iii) at least 10 patients must be included in the study. These selection criteria were chosen to maximize the quality of the empirical studies included in the Systematic Review. A total of 53 studies met these criteria and were included in the study (see article IV).

In contrast to research question 2, the remaining research questions 1, 3, 4, and 5 are all of a theoretical nature, calling for a different methodological approach. 'Phenomenology' in the continental philosophical sense of term, i.e., the philosophical approach inaugurated by Husserl in 1900 with the publication of the first volume of *Logische Untersuchungen* (1975), was chosen as a suitable method. In psychiatry, the tradition of applying phenomenology and phenomenological methods to psychopathology dates back to at least Jaspers's *Allgemeine Psychopathology* (1997), which first appeared in 1913. Since then, phenomenological methods have been applied by several renowned psychopathologists (e.g., Minkowski 1927; Binswanger 1957; Schneider 1959; Blankenburg 1971; Parnas & Zahavi 2002). In brief, phenomenology is the science of phenomena. Here, 'phenomena' is taken in its etymological sense (Greek: *phainomenon*) as "*that which shows itself in itself*, the manifest" (Heidegger 2007, 51). In other words, phenomenology is occupied with describing objects ("*that which shows itself"*) strictly as they are *presented* to us in experience, i.e., how they strike us or are given to us in experience. The famous motto of phenomenology – 'to the things themselves' – calls for us to pay close attention to how objects appear to us in experience and then use these insights to inform and guide our theories of these objects. Most importantly, phenomenology is not primarily concerned with the particulars or mere subjective aspects of objects as they appear in experience, but in how these objects appear across contexts, laying bare their invariant structures or essential features, outlining the conditions of possibility for experiencing such objects, etc. Faithfully describing and analyzing objects, whatever the objects may be (e.g., mental, physical, the world itself, etc.)[3], strictly as they are given in our experience is, however, not

[3] The concept of 'object' is used in a broad sense of the term. Its use here may be surprising given that Jaspers emphasized that "*the psyche* itself does *not* become *an object*" (1997, 9) and the psyche is a key interest in psychopathology. In a phenomenological sense of term, however, we can say that whatever we are directed toward in our experience is our intentional object. Thus, if we ponder the nature of the psyche, the psyche is our intentional object, albeit the psyche, as Jaspers rightly pointed out, is not an 'object' in a narrower sense of the term, e.g., as something that is perceptible in itself (ibid.).

an easy task and requires an adequate method. The following phenomenological methods were applied in this dissertation:

The first is the *epoché*, which Husserl described as a gateway to phenomenology (Husserl 1970, 257). The epoché calls for us to 'bracket', 'parenthesize' or deactivate all our assumptions, beliefs or knowledge about the object of interest in order for us to examine the object directly as it appears in our experience, i.e., without adding or subtracting anything (Husserl 1983, 44, 61). In that regard, the epoché is supposed to guard against biased phenomenological descriptions of the object. As Overgaard aptly has emphasized, the epoché concerns the phenomenological description of the object, i.e., the point of the epoché is not to somehow purify the lived experiences in which the relevant object appears – in fact, these experiences must be left exactly as they were, including whatever assumptions, beliefs or knowledge that are part of them, as they belong to the object that we seek to phenomenologically describe (Overgaard 2015). The epoché, however, is only the methodological point of entry; in and of itself it does not deliver any answers.

The second is the *eidetic variation*, which aims at grasping the essential features of the object of interest. By varying some features of the object while retaining others and by stripping the object off its accidental features (i.e., those features that *can* vary without the object ceases to be this particular object), its essential features are eventually laid bare (i.e., those features that *cannot* vary without the object ceases to be this particular object). For example, color, size, and weight are all accidental features of a sphere that can vary without the sphere ceases to be a sphere; what cannot vary, however, is that every point on the sphere's surface must be equidistant to its center (Nordgaard & Henriksen 2019, 942). There is some overlap between eidetic variation in phenomenology and standard conceptual analysis in analytic philosophy (Overgaard et al. 2013).

The third is *intersubjective corroboration*, which concerns the accessibility and universality of the object's essential features or invariant structures across contexts. In other words, phenomenological descriptions and analyses should be compared to others' descriptions and analyses of the same object, i.e., phenomenology is open to correction, verification or rejection (Gallagher & Zahavi 2008). Phenomenology is not a self-enclosed enterprise, which its application to psychiatry and many other branches of science in the last century clearly testifies.

In sum, research questions 1, 3, 4, and 5 are investigated using the phenomenological method sketched above. In this dissertation, the objects of investigation include various phenomena such as self-disorders, psychosis, and intersubjective difficulties, and the results are assessed

according to their internal coherency as well as their compatibility and consistency with other empirical and clinical findings.

Most importantly, the pursuit of this dissertation's purpose and research questions are not characterized by a kind of "armchair philosophy" detached from the clinical reality. Throughout all the years I have worked on the studies included in this dissertation, the vast majority of my work has taken place at psychiatric hospitals in close collaboration with clinicians. Moreover, I have continuously seen patients and participated in differential-diagnostic interviews and psychopathological assessments conducted by senior research clinicians. The importance of this link to the clinical reality for the work presented here cannot be overestimated. It has allowed a continuous grasp of what is relevant for both clinicians and patients, and it has enabled an ongoing calibration of my ideas about the nature of certain psychopathological phenomena and their concrete and often quite diverse clinical manifestations. Thus, the phenomenological methods described above have been applied throughout the years to constantly challenge, test, and improve the psychopathological analyses and concepts presented here. In other words, this dissertation has very much grown out of the clinical reality.

5. Ethics

The research included in this dissertation does not contain any empirical study with human subjects, which I carried out. The research includes two articles, which reviewed empirical studies on self-disorders (articles III and IV). In these studies, patients participated upon informed consent.

6. Results

The results are grouped according to the dissertation's research questions.

6.1 What is the nature of the Self-disorder in schizophrenia spectrum disorders?

Although mentioned in several of the included studies, articles I (Parnas & Henriksen 2016) and II (Henriksen et al. 2019) investigated in detail the nature of the Self-disorder in schizophrenia spectrum disorders. In article I (Parnas & Henriksen 2016), it was argued that the core disturbance in schizophrenia spectrum disorders is a disorder of what some philosophers have called the 'minimal self', which designates the first-personal character of experience (e.g., Zahavi 2014). The specificity of this disorder was sought by drawing a conceptual distinction between two interrelated moments or aspects of the minimal self, viz. a *formal* aspect, designating the perspectival pole of

experience, and an *affective* aspect, designating the automatic, pre-reflective self-presence that permeates all experiences and persists across changing modalities of consciousness. The study argued that the formal aspect of the minimal self, i.e., the perspectival pole of experience, was preserved in schizophrenia spectrum disorders. For example, a patient experiencing thought insertion is perfectly aware that it is her herself and not someone else that experiences these alien thoughts—the alien thoughts are present to her, in her own mind, and this is precisely why the experience often is so disturbing. By contrast, the affective aspect of the minimal, i.e., pre-reflective self-presence, appeared to be threatened or unstable in schizophrenia spectrum disorder, causing an incomplete saturation of experiential life and enabling normally tacit aspects of mental life to emerge with alien or intrusive prominence and take shape within the very intimacy of the patient's own subjectivity (Parnas & Henriksen 2016, 85).

In the second study (Henriksen et al. 2019), the core of the argument above was maintained, yet the account of the disorder of the minimal self was carefully revised. By introducing the conceptual distinction between two aspects of the minimal self, the argument put forth was vulnerable to a potential, though, in our view, erroneous objection. One could argue that the minimal self is nothing but what we considered its formal aspect and which we had argued remained preserved in schizophrenia. If one accepts this conceptualization of the minimal self, then one could argue that the minimal self is not disturbed in schizophrenia spectrum disorders, and that the nature of the Self-disorder in schizophrenia spectrum disorders thus must be sought at other, more sophisticated levels of selfhood. Such a conceptualization of the minimal self is, in our view, not adequate as it would effectively deprive the minimal self of its basic experiential and phenomenological thickness. To counter such a potential objection and make our own argument clearer, we revised our account, arguing against two opposing views, namely that the minimal self either is completely lost or remains entirely preserved in schizophrenia spectrum disorders. First, all experiences, pathological or not, manifest first-personally to the subject of experience. Thus, the minimal self cannot be lost. If there are experiences, then they will be given first-personally to the subject of experience. Second, using an artichoke analogy, we argued that schizophrenia spectrum disorders do not only affect the petals (i.e., higher levels of selfhood), leaving the heart (i.e., the minimal self) intact. By contrast, we argued that fruit syrup may be a better analogy. If we mix red fruit syrup with water, the syrup colors all the water—it does not leave a bottom layer uncolored (contra the second view) and the water does not disappear (contra the first view). Refuting these views, we argued that the minimal self is disturbed in schizophrenia spectrum disorders in the sense

of a frailty or instability in the very first-personal manifestation of experience. This instability manifests as a failing pre-reflective self-presence, which gives rise to a pervasively felt distance between the experiencer and her experiences. For example, many patients describe that they must listen to their thoughts internally to know what they are thinking or that certain thoughts or movements feel as if they were not generated by them. In psychosis, this felt distance or gap becomes unbridgeable, leaving the patient unable to recognize some of her own thoughts or movements as her own. In essence, we argued that ascription of the origin of thoughts or movements to another agent does not primarily stem from a failure at the level of reflective self-ascription of mental states but from in an impairment in the very first-personal articulation of experience at a pre-reflective level of experience, which then acquired a delusional elaboration.

6.2 Is there empirical evidence to substantiate the claim that self-disorders have diagnostic specificity for schizophrenia spectrum disorders?

Articles III (Parnas & Henriksen 2014) and IV (Henriksen et al. in press) – a Review and a Systematic Review, respectively – assessed the distribution of self-disorders in different diagnostic groups. At the time of the first review (Parnas & Henriksen 2014), only 3 studies, comparing EASE-measured self-disorders in different diagnostic groups, had been published. These studies found self-disorders to hyper-aggregate in schizophrenia and schizotypal disorder but not in other mental disorders. Additionally, studies using pre-EASE-proxy scales, which were based on *BSABS: Bonn Scale for the Assessment of Basic Symptoms* (Gross et al. 1987), were included in the Review. These studies also found a hyper-aggregation of self-disorders in schizophrenia and schizotypal disorder. At the time of the Systematic Review (Henriksen et al. in press), more empirical studies had been published and a more fine-grained set of inclusion and exclusion criteria was applied to ensure sufficient breadth and depth in the included studies' assessment of self-disorders. A total of 53 empirical studies were included in the Systematic Review. Of them, 22 EASE-based studies and 2 pre-EASE-proxy based studies compared self-disorders in different diagnostic groups. All studies consistently found a hyper-aggregation of self-disorders in schizophrenia and schizotypal disorder compared to all other examined mental disorders (e.g., bipolar disorder, other psychotic disorders, and non-psychotic disorders) and healthy controls. Only a few studies compared the level of self-disorders in schizophrenia and schizotypal disorder, but the results indicate that the two diagnostic groups score statistically similar on EASE-measured self-disorders. Overall, there is now consistent and compelling evidence that self-disorders, measured with the EASE, hyper-aggregate in

schizophrenia spectrum disorders and in that regard entail a high degree of diagnostic specificity for the schizophrenia spectrum. This finding has been corroborated in a recent meta-analysis (Raballo et al. 2021).

The association between self-disorders and schizophrenia spectrum disorders was further confirmed in prospective studies, where high levels of self-disorders at baseline were found to predict a diagnosis within the schizophrenia spectrum at 5-7 years follow-up in patients initially diagnosed outside the schizophrenia spectrum. Moreover, self-disorders were generally found to be temporally stable over 5-7 years, and they were also found to correlate with the canonical dimensions of the psychopathology of schizophrenia (e.g., positive, negative, and disorganized symptoms) as well as with impaired social functioning and suicidal ideation. Finally, it merits attention that no correlations were generally found between self-disorders and trauma and neurocognition, respectively.

Taken together, the results from articles III and IV suggest that self-disorders have a high degree of diagnostic specificity for schizophrenia spectrum disorders. All available empirical evidence points unequivocally in that direction. From a historical perspective, this conclusion is unsurprising given that schizophrenia originally was constitutively linked to a disordered self. However, hypothesizing this link is one thing, demonstrating it by reviewing empirical studies by research groups from all over the world and finding consistent results is quite another. Notably, the hyper-aggregation of self-disorders in schizophrenia spectrum disorders does not imply that self-disorders are somehow exclusive to this spectrum. Neither does it imply that singular self-disorders in themselves are diagnostically specific in the sense of being pathognomonic for schizophrenia spectrum disorders. The empirical studies clearly testify that self-disorders can be found in other mental disorders but to a significant lesser extent.

6.3 How can self-disorders be related to characteristic features of the psychopathology of schizophrenia such as poor insight into illness and psychosis?

The results from the empirical studies described above prompt an important question. If this altered framework of experiencing oneself, others, and the world, epitomized by self-disorders, is so pervasive and fundamental in schizophrenia spectrum disorders, how does this altered framework affect or shape characteristic features of the psychopathology of schizophrenia? Articles I (Parnas & Henriksen 2016), II (Henriksen et al. 2019), and V (Henriksen & Parnas 2014) explored this

question. They converge on 3 main issues to which the role of self-disorders has shed a new and important light: poor insight into illness, psychosis, and double bookkeeping.

Poor insight into illness is a hallmark of schizophrenia and widely regarded as a primary cause of treatment noncompliance[4]. Article V (Henriksen & Parnas 2014) critically assessed two dominant conceptual accounts of poor insight into illness, which are rooted in psychoanalysis and cognitive neuroscience, respectively. Both accounts conceive poor insight into illness as an ineffective self-reflection caused by either a psychological defense mechanism (denial), shielding the patient from a situation with which she cannot yet cope (e.g., Mintz et al. 2003), or by impaired strategic or attributive metacognition, making the patient unable to accurately reflect upon her experiences (e.g., David et al. 2012). The study problematized these accounts' implicit assumptions about poor insight into illness being a fairly straightforward problem of critical self-reflection and the accounts' apparently neat separation of symptoms of a mental disorder from the self that experiences and reflects upon these symptoms. By contrast, we argued that the altered framework of experiencing in schizophrenia affects the very conditions for critical self-reflection, and that poor insight into illness in schizophrenia thus is rooted in these self-disorders. In this context, two issues merit attention: i) self-disorders often have an onset in childhood or early adolescence, they are trait-like features, and they are experienced in an ego-syntonic way, and ii) self-disorders, as listed and defined in the EASE-scale (Parnas et al. 2005), do not generally designate anomalous experiential *contents* but rather anomalous *forms* or *structures* of experience, e.g., EASE item 1.2 'loss of thought ipseity' designates an experience of some thoughts, regardless of their content, appearing as if they are not generated by the subject of experience. These anomalous forms of experience usually become quite indistinctly woven into the patients' very mode of experiencing. Therefore, patients with schizophrenia do not experience their initial self-disorders, from which many of the classical symptoms of schizophrenia may later emerge (e.g., Sass & Parnas 2003; cf. Henriksen & Parnas 2014, 545), as "symptoms" of an illness (similar to how a toothache might be a symptom of a dental infection) but instead as habitual or intrinsic aspects of their identity and existence (cf. "It is just who I am" [Henriksen & Nordgaard 2014, 439])[5]. For example, enduring, non-psychotic experiences of loss of thought ipseity, thought block,

[4] The concept of poor insight into illness has different meanings in psychiatric literature. In this dissertation, the concept is used in a broad sense, designating insufficient awareness of having a particular mental disorder and of the symptoms stemming from this disorder.

[5] Self-disorders are not always associated with suffering or functional decline. For example, many patients describe that they *listen* to their own thoughts internally but without fearing or believing that others can hear their thoughts or that others somehow have access to them (i.e., EASE item 1.7.1 'perceptualization of inner speech'). This anomalous self-

and demarcation problems may, at some point, acquire psychotic intensity with the patient believing that some of her thoughts are, in fact, not her own thoughts but have instead been inserted by someone else or that someone else is extracting thoughts from her mind (Henriksen et al. 2019).

Crucial for a proper appreciation of poor insight into illness in schizophrenia is also the experiential character of primary psychopathological phenomena (e.g., primary delusions and first-rank symptoms). As mentioned above, pre-reflective self-presence is unstable in schizophrenia spectrum disorders, i.e., it has lost some of its usual structuring effect on the flow of experience, causing an incomplete saturation of experiential life (e.g., failing self/other demarcation, loss of thought ipseity, and bodily estrangement) and enabling normally tacit aspects of mental life to emerge with anonymous or alien prominence in the midst of the patient's own subjectivity. This modified experiential framework is also linked to the emergence of primary psychopathological phenomena in schizophrenia (e.g., Nordgaard et al. 2020). Most importantly, these primary phenomena are not experientially given to the patients in the form of gradually, solidifying delusional beliefs that are based on incorrect inferences about external reality. Rather, the manifestation of primary psychopathological phenomena resembles that of certain mystical experiences, i.e., primary psychopathological phenomena appear to the patients in an immediate, revelatory manner, imposing themselves directly on the patients and circumventing their capacity for critical self-reflection (Conrad 1959; Gennart 2011; cf. Henriksen & Parnas 2014; Parnas & Henriksen 2016). In other words, primary psychopathological phenomena are experienced as a sudden and profound *insight* into the nature of something, i.e., something is revealed to the patient as that which it truly is. Qua its revelatory givenness, primary psychopathological phenomena are permeated by absolute subjective certainty (e.g., Müller-Suur 1950), and this subjective certitude is the source of the well-known incorrigibility of such delusions in schizophrenia.

Apart from their revelatory givenness, primary psychopathological phenomena share another characteristic feature with certain mystical experiences (*unio mystica*), namely that the obtained insight often expresses a penetration into another, deeper or higher dimension of reality (Henriksen & Parnas 2014, 546; Parnas & Henriksen 2016, 81; cf. Schneider 1971, 106)[6]. This

experience does not seem to be linked to any suffering—indeed, patients are often surprised to hear that the majority of people does *not* experience their thoughts with acoustic qualities, revealing something about the ego-syntonic quality of this mode of experiencing.

[6] It is important to note – as we also do in article I (Parnas & Henriksen 2016) – that there are not only similarities but also differences between primary psychopathological phenomena and experiences of *unio mystica* (i.e., experiences of union or identity with the Absolute). For example, experiences of *unio mystica* are i) usually actively strived for through years of practice and by willingly adopting certain preparatory behavioral or mental attitudes that revolve around detachment from the shared-social world and efforts of self-effacement, ii) the mystical experiences are typically only

profoundly altered experience of reality (cf. Jaspers 1997, 105) has also implications for the understanding of poor insight into illness and the nature of psychosis in schizophrenia. For example, primary psychopathological phenomena in schizophrenia rarely concern matter of affairs in the shared-social world but seem to implicate another world—a world that looms up before the patient alone, viz. quasi-solipsism (Sass 1994). Typically, these symptoms retain a layer of subjectivity, remain insufficiently objective, and are thus not fully woven into the fabric of the shared-social world (contrary to, e.g., psychotic symptoms in certain forms of delirium). To capture this crucial aspect of psychosis in schizophrenia, we reintroduced and offered a definition of the phenomenon of double bookkeeping, which Bleuler considered a cardinal feature of schizophrenia (Bleuler 1950, 56, 126). Though richly exemplified in his textbook, the concept of double bookkeeping had escaped definition. Notably, our definition of double bookkeeping goes beyond Bleuler's examples, which generally gravitate around patients not acting or failing to act in a manner that is consistent with the delusion entertained (e.g., a patient believing to be the Pope but failing to act in accordance with this belief [ibid., 56]). In articles I and V (Parnas & Henriksen 2016; Henriksen & Parnas 2014), we define double bookkeeping as the ability or affliction of some patients with schizophrenia to simultaneously live or exist in two different worlds, namely the *shared-social* world and *a private-solipsistic* and, at times, psychotic world. Typically, patients seem to experience both worlds as relevant and real, though not necessarily 'real' in the same sense of the term (Jaspers 1997, 105; cf. Ratcliffe 2008, 194). Moreover, they usually experience these worlds as two ontologically different and thus not conflicting realities, allowing them to co-exist and only occasionally to collide. Double bookkeeping has implications for the conceptualization of psychosis in schizophrenia. Since these patients often, though not always, are able to differentiate the two worlds from each other (Bleuler 1950, 56), psychosis in schizophrenia cannot be satisfactorily captured as a mere failure of reality testing (cf. Sass 1994; Henriksen 2013; 2018), and this has consequences not only for a proper conceptualization of psychosis, delusion, and

of very brief duration, and iii) they articulate an insight into another dimension of reality, which is not on a par with external reality but rather the ultimate ground of this reality—it is a dimension of reality that usually remains buried so deep inside us that we cannot to see it, but which nonetheless is potentially available to us all. By contrast, primary psychopathological phenomena are i) usually not actively strived for and although some of the preparatory steps taken by mystics may resemble the detachment from the shared-social world and aspects of self-disorders found in schizophrenia, the latter are not willingly adopted and controlled but rather "passively" part of the patient's framework for experiencing; ii) the psychotic phenomena may last from days to years, and iii) the psychotic world – often filled with delusions, hallucinations or passivity phenomena – is altogether different from the mystics' penetration into the ultimate ground of reality.

hallucination but also for diagnosing and treating patients with schizophrenia (Škodlar & Henriksen 2019; Feyearts et al. 2021).

6.4 How can self-disorders be related to social difficulties in schizophrenia spectrum disorders?
Jointly, articles VI (Henriksen & Nilsson 2017) and VII (Salice & Henriksen 2021) offered a theoretical and clinically-informed exploration of how the altered experiential framework, epitomized by self-disorders, may be related to impaired social functioning—i.e., it attempted to make sense of the relation between disorders of subjectivity and disorders of intersubjectivity. Article VII (Salice & Henriksen 2021) built upon, but also revised, previous conceptual work on shared intentionality and its possible disturbances in schizophrenia (Salice & Henriksen 2015). In brief, shared intentionality refers to the capacity to share mental states. Article VI proposed a conceptual distinction between two forms of shared intentionality, i.e., joint intentionality and we-intentionality, and it identifies psychological preconditions for engaging in and maintaining each of these two forms of shared intentionality. Briefly put, in joint intentionality agents pursue *individual* goals that happen to overlap with that of other agents, whereas in we-intentionality agents pursue *collective* goals, i.e., the goals of the group (or the 'we'). We argue that joint intentionality relies on the subjects' mentalising abilities such as mindreading and the ability to factor in (or to 'be moved' by) their partner's intentions in deliberation and action planning. By contrast, we-intentionality relies on the subjects' capacity to understand themselves as group members and to adopt the group's perspective (viz. group identification). In schizophrenia spectrum disorders, we argued that joint intentionality usually remains unaffected, but the enduring presence of self-disorders (e.g., feelings of being profoundly different from others [*Anderssein*], common sense problems, hyper-reflection, and demarcation problems) may affect the patients' capacity to understand themselves as group members and, by extension, their ability to engage in and maintain we-intentionality. We contrasted schizophrenia spectrum disorders with the case of infantile autism, arguing that in infantile autism both forms of shared intentionality are disturbed due to characteristic impairments in mindreading, perspective-taking, and especially in the ability to be emotionally drawn or moved to assume others' bodily anchored psychological attitudes by which one's one perspective can be configured according to what is perceived in the other (Hobson et al. 2006, 131). Shared intentionality may thus be affected in both schizophrenia spectrum disorders and severe autism, but the root problems are different, linked to the disorders' different psychopathological cores and bringing about qualitatively distinct difficulties in the social domain.

Article VII (Henriksen & Nilsson 2017) explored intersubjective difficulties through the prism of the 'we' (cf. Salice and Heniksen 2015) and identified what appeared to be 3 prototypical compensatory strategies to navigate the social world in schizophrenia spectrum disorders: i) positive withdrawal, a phenomenon originally described by Corin (1990), which refers to a socially marginalized but not negatively experienced position that is counteracted by certain, often fairly anonymous, ways of relating to the social environment (ibid., 175); ii) imposing a goal-oriented, spatiotemporal structure on social activities that would usually exhibit a much more fluid, intangible character or seeking out social activities marked by such a structure; and iii) preferring social activities with a clear attribution of social roles and rules. These strategies of navigating the social world are of course not abnormal forms of social engagement but, in schizophrenia spectrum disorders, these strategies sometimes come to the fore and seem to dominate the quality of the social engagement, taking on a rigid, inflexible, and sometimes even preemptory character. Crucially, these compensatory strategies do not seem to be experienced by patients as constraints to be overcome but rather as structures upon which their social engagements hinge, helping them to establish and maintain interpersonal relationships that in many other social settings or contexts were experienced as uncomfortable (Henriksen & Nilsson 2017). The latter two compensatory strategies, with their insistence on clearly defined purposes, spatiotemporal structures, social roles, and rules, seem to indicate that these social activities predominantly are steered by joint intentionality. Since this also seems to be the case for social activities, which one would expect to be steered by we-intentionality (e.g., being together with close friends or a partner), it may suggest a frailty of we-intentionality in schizophrenia spectrum disorders as hypothesized in article VI (Salice & Henriksen 2021; cf. Salice & Henriksen 2015).

6.5 Can self-disorders be addressed psychotherapeutically?

This research question is theoretical, not empirical in nature. The question is not whether a specific psychotherapeutic intervention can ameliorate self-disorders. In fact, no psychotherapeutic intervention has been designed to target self-disorders so far and no empirical study has yet examined the treatability of EASE-measured self-disorders. Against this backdrop, article VIII (Škodlar & Henriksen 2019) sought to lay a foundation for a phenomenologically informed psychotherapy for schizophrenia. This foundation is ultimately based on the clinical intuition that knowledge of the patients' experiential life is a prerequisite for any sound psychotherapy, i.e., the psychotherapist must know what she is treating. If the psychotherapy is not grounded in a deep

understanding of the patients' mental condition or if the therapist fails to convey her knowledge of this condition to the patient in some way or another, then the psychotherapeutic intervention is likely to be experienced as somewhat shallow (Škodlar & Henriksen 2019). In schizophrenia spectrum disorders, acquiring such a knowledge is especially important given that these patients' experiences are not always straightforwardly psychologically understandable (Jaspers 1997; Ratcliffe 2012; Henriksen 2013). In this context, we propose that research on self-disorders offers resources for grasping these patients' altered framework of experiencing, which in turn aids the therapist in, at least partially, understanding how these patients often experience themselves, others, and the world and the inherent, often deep and persistent vulnerability connected to this mode of experiencing and being in the world.

We outline basic principles for a phenomenological psychotherapy, stratified into four subgroups: i) overall goals, ii) general attitudes, iii) main domains, and iv) therapeutic strategies. Each of the four subgroups is informed by knowledge from research on self-disorders. For example, addressing patients' alienation from the social world is an overall therapeutic goal. This goal is pursued in part by adopting an appropriate attitude, i.e., by resisting premature interpretation of the patients' experiences and instead staying with the "how" of these experiences, clarifying their nature and meaning, before inquiring into "why" the patients believe they have such experiences (cf. Nordgaard & Henriksen 2019). Usually, such an attitude has an intrinsic relational value; it makes the patients feel heard, listened to, and not judged, which, in itself, momentarily may decrease the feeling of estrangement from others. Depending on the nature of the patients' estrangement from the social world, different therapeutic strategies can be applied. If the heart of the social estrangement stems from problems with common sense and tendencies to hyper-reflect to decode the meaning of social situations, which is not given spontaneously or naturally to the patient, then encouraging the patient to participate in structured, social activities, organized around specific purposes and with clearly formulated social roles and rules, may facilitate a move from a more passive, observing, and analyzing stance to a more active, participating stance. This type of structured social activities often appears to be experienced as fairly safe and enjoyable in contrast to less structured, more casual social activities, which often trigger pervasive anxiety, uncertainty and hyper-reflection about the meaning and unfolding of the social encounter.

Additionally, we suggest that it is important to work with a scope of acceptance of self-disorders. Since self-disorders appear to be trait-like features, they are not likely to simply disappear. Therefore, viewing them not only as sources of vulnerability but also as sources of

openness and creativity may serve as preventive measures against pessimistic or exaggerated preoccupation with them. In sum, the answer to the final research question is therefore in the affirmative—self-disorders not only *can* but *should* be addressed psychotherapeutically, not only as singular targets in themselves but preferably in a comprehensive, holistic fashion as briefly and simplistically exemplified above. Finally, it is important to highlight that such a phenomenological approach to psychotherapy does not hinge on any specific psychological theory, a model of interpersonal or intrapersonal dynamics or the like, and therefore it can be combined with several existing psychotherapies.

7. Discussion

A critical appraisal of the dissertation's results requires a contextual acknowledgement of certain interrelated psychopathological, conceptual, and methodological issues.

First, the work presented in this dissertation (Parnas & Henriksen 2016; Henriksen et al. 2019) has argued that the Self-disorder in schizophrenia spectrum disorders does not primarily lie at complex levels of selfhood such as personality, social identity or narrativity (cf. Parnas & Henriksen 2014; 2019; Zandersen & Parnas 2019) but at a very basic experiential level of selfhood, viz. 'the minimal self' (e.g., Zahavi 2005; 2014). Crucially, this does not imply that more complex levels of selfhood remain unaffected in schizophrenia spectrum disorders. The minimal self imbues the first-person perspective with an inchoate sense of singularity or proto-individuation (Parnas & Henriksen 2016, 84), which is a prerequisite for the social and cultural construction of the narrative-personal self (cf. Heinz et al. 2012). For example, one can imagine how insecurity in distinguishing if certain memories were, in fact, experienced by oneself, reported by someone else or perceived in a movie (i.e., EASE item 1.10 'inability to discriminate modalities of intentionality), can contribute to destabilize a coherent personal narrative. Due to this relation of dependence, a disorder at the level of the minimal self is likely to bring about problems at more sophisticated levels of selfhood too. From this perspective, it is unsurprising that several studies have found that patients with schizophrenia often also meet diagnostic criteria for personality disorders (e.g., Newton-Howes et al. 2008; Candini et al. 2018; Simonsen & Newton-Howes 2018). By contrast, self-related problems that originate at narrative levels of selfhood are not likely to stream down, as it were, and produce disturbances at the most basic, experiential level of selfhood. This claim has been corroborated by empirical studies on self-disorders, which report significantly less EASE-measured self-disorders in

non-psychotic disorders (e.g., personality disorders, eating disorders, and anxiety disorders) compared with schizophrenia spectrum disorders (Henriksen et al. in press).

Prior to the work presented in this dissertation, several authors such as Sass & Parnas (2003) and Cermolacce et al. (2007) had suggested that the Self-disorder in schizophrenia seems to imply a disturbance of ipseity or minimal self. The novelty of the work presented in this dissertation on this specific issue is therefore not the mere claim that the minimal self is affected in schizophrenia spectrum disorders but the conceptual analyses and arguments substantiating this central claim. Previously, the concept of minimal self was regularly applied in the relevant psychiatric literature in a manner that was not entirely consistent with the concept's definition in the philosophical literature, which, however, was referenced to corroborate the claims made in the psychiatric literature. For example, in a book chapter, which is not included in this dissertation, we state the following: "The 'pre-reflective,' 'minimal,' or 'experiential' self, as the ubiquitous first-personal feature of experience (Zahavi 2014), can be descriptively expanded to include a sense of singularity, synchronic and diachronic self-identity, embodiment, and self-other demarcation" (Parnas & Henriksen 2019, 467; cf. 2014, 255). Although the minimal self here initially is correctly defined as "the ubiquitous first-personal feature of experience", it is subsequently "descriptively expanded" with elements that go well beyond this definition. Such an "expansion" induces ambiguity into the very definition of the concept of minimal self and its application to schizophrenia research, and similar "expansions" of the concept can be found elsewhere in the psychiatric literature (e.g., Cermolacce et al. 2007; Zandersen & Parnas 2019, 110). In retrospect, it seems that two issues have contributed to the emergence of such expansions and, by extension, ambiguities. The first is the attempt to reconcile the concept of ipseity with that of the minimal self. Although the conceptual boundaries of 'ipseity' and 'minimal self' overlap, the concepts are not congruent: the 'minimal self' designates the first-personal givenness of experience, whereas ipseity denotes "the experiential sense of being a vital and self-coinciding subject of experience or first person perspective on the world" (Sass & Parnas 2003, 428). The second is that the descriptive expansion of the minimal self appears to be, at least it was for my own part, pragmatically motivated by the observation that not all self-disorders defined and described in the EASE (Parnas et al. 2005) could be perceived directly as expression of a disorder of the first-personal character of experience. This is also vividly illustrated in Parnas's claim that "the minimal self is too small" (Parnas 2007). The attempt to solve this problem by descriptively expanding the boundaries of the concept was, however, self-defeating.

The discrepancy between the concept's application in psychiatry and its meaning in philosophy contributed to open up avenues of critique (e.g., Ratcliffe 2017). Given this discrepancy, is it then, after all, the minimal self that is disturbed in schizophrenia? If the self-disorders described in the EASE are not all straightforward expressions of a disorder of the minimal self, what level of selfhood is then implicated? Does the basic Self-disorder in schizophrenia perhaps take place at more rich, narrative levels of selfhood after all, leaving the minimal self untouched? Moreover, if the minimal self, as repeatedly emphasized in the philosophical literature (e.g., Zahavi 2005; 2014) is a necessary, universal feature of phenomenal consciousness, then how can it lack or even be disordered in schizophrenia? The solution to these questions, as proposed in this dissertation, was to return to the strict philosophical definition of the minimal self and offer a revised account of how the minimal self is disordered in schizophrenia spectrum disorders, which is summarized in the Results section above (Henriksen et al. 2019). Crucially, not all schizophrenia spectrum psychopathology can be viewed as direct expressions of a disordered minimal self—in that regard, the minimal self is indeed too small. Squeezing all psychopathology to fit such a model is not an option. Human selfhood is certainly not reducible to the minimal self and other, richer layers of subjectivity, including temporality, embodiment, narrativity, intersubjectivity, etc., must be taken into account if we are to obtain a comprehensive view of the human being and how it can be disturbed in mental disorders. In schizophrenia spectrum disorders, we argued that the minimal self is disordered in the sense that there is frail or unstable first-personal manifestation of experience, characterized by a failing automatic, pre-reflective self-presence and thus an incomplete saturation of experiential life. We argued that the disorder of the minimal self constitutes the fundamental disturbance of schizophrenia spectrum disorders, conditioning, shaping, and, to some extent, connecting the psychopathology that may appear on various levels of selfhood within the schizophrenia spectrum.

Second, the two Reviews (Parnas & Henriksen 2014; Henriksen et al. in press) collectively found that self-disorders hyper-aggregate in schizophrenia spectrum disorders, are temporarily stable features, and predict a diagnosis within the schizophrenia spectrum in patients initially diagnosed outside this spectrum. Moreover, self-disorders were also found to correlate with the classical dimensions of the psychopathology of schizophrenia as well as with social dysfunction and suicidality, respectively, but generally not with trauma or neurocognitive deficits. The general lack of association between self-disorders and neurocognitive impairment, which long has been considered a core characteristic of schizophrenia (e.g., Mohamed et al. 1999), seems to suggest that

self-disorders and neurocognitive impairment may constitute separate dimensions of schizophrenia (cf. Nordgaard et al. 2015; Nordgaard 2021).

It is important emphasize that no studies so far have explored the presence of self-disorders in organic disorders or substance-induced psychosis. Moreover, there are methodological limitations with several of the studies included in the Reviews. First, the sample size in several of the studies is fairly small. This limitation must, however, be weighed against the rigorousness and sophistication of the psychopathological assessment in at least some of the included studies. Second, several studies entail either an insufficient methodology or a lack of transparency of the methodology, which also is highlighted in the systematic review. The most significant problems concern inadequate differential-diagnostic evaluation of the sample and assessment of self-disorders by raters, who were not properly reliability-trained in the use of the EASE. A shortcoming of the Systematic Review is precisely that the studies harboring methodological constraints are not spelled out in detail. Yet, studies reporting proper reliability training and providing relevant kappa values are detailed in the discussion section, allowing readers to distinguish them from the other studies. In this regard, the crucial issue concerning reliability is handled in the Systematic Review, whereas a more thorough discussion of the methodological issues at the level of the individual studies is absent. Using, e.g., GRADE (Grading of Recommendations, Assessment, Development and Evaluations [Guyatt et al. 2008]) to individually assess the quality of the included studies could have solved this issue. Moreover, explicit assessment of risk of bias of the Systematic Review itself could have further improved the quality of the review. However, it merits attention that the fairly strict inclusion/exclusion criteria (i.e., requiring a sample of at least 10 patients, a scale of at least 10 items to assess self-disorders, and that self-disorders were assessed through a clinical interview and not, e.g., by means of self-rating scale) were chosen to maximize the quality of the included studies and, by extension, the quality of the Systematic Review.

On the basis of the results from the two Reviews, self-disorders are concluded to constitute a trait-like phenotype with a high degree of specificity for the schizophrenia spectrum. In contrast to contemporary trans-diagnostic or dimensional models, which not only go beyond the boundaries of the diagnostic categories but regularly aims specifically at dissolving these categories, e.g., replacing them with a unitary "psychosis spectrum disorder" (e.g., Guloksuz & Van Os [2021] claim that "the time for the funeral of schizophrenia was yesterday"), research on self-disorders contributes to validate the diagnostic *category* of *the schizophrenia spectrum* as a delimited group of clinical disorders that share the same fundamental disturbance (Self-disorder),

which manifests in multiple ways, on various levels of selfhood, and in various levels of severity (cf. Jansson & Nordgaard 2016, 3).

Third, the work on self-disorders in this dissertation is confronted by an unaddressed conceptual ambiguity. The concept of self-disorder is used to designate both the basic disorder of the minimal self ('Self-disorder' in singular) and the anomalous self-experiences included in the EASE ('self-disorders' in plural). The first usage refers to the fundamental disturbance, the psychopathological core as it were, in schizophrenia spectrum disorders, whereas the latter refers to specific psychopathological manifestations of this core. In other words, self-disorders (in plural) are expressions or aspects of *the* underlying Self-disorder (in singular). Using the concept of 'self-disorders' to designate items included in the EASE may open up for an erroneous interpretation, namely that a patient, who is rated positively on several items in the EASE, has several underlying "Self-disorders". This is of course not the view proposed here, according to which there is *one* basic Self-disorder in the sense of a disorder of the minimal self, which then manifests on different levels of selfhood and in variety of specific ways, which for practical reasons have been labelled 'self-disorders' to articulate their affinity to the underlying Self-disorder. In the literature, other notions are used synonymously to self-disorders to designate the items included in the EASE, e.g., 'anomalous self-experiences' (e.g., Parnas et al. 2005), 'basic self-disturbances' (e.g., Nelson et al. 2020) and 'basic self-disorders' (e.g., Raballo et al. 2021). However, these different notions do also not escape ambiguity. The first notion ('anomalous self-experiences') is widely used in psychiatric literature and often in a manner that is much broader than 'items included in the EASE'. Thus, this notion risks blurring crucial differences between anomalous self-experiences (in the EASE), which have been found to have a high degree of diagnostic specificity for schizophrenia spectrum disorders, and the broader range of anomalous self-experiences, which hold no such diagnostic specificity for schizophrenia spectrum disorders. Finally, the latter two notions (i.e., 'basic self-disturbances' and 'basic self-disorders') are confronted with the same issue as that related to the concept of 'self-disorders'. Although not entirely satisfying, I, like others, opt for the concepts of Self-disorder (in singular) and self-disorders (in plural), often referring to the latter as "mean EASE total score", which is more precise but also verbally and linguistically more awkward. Throughout this dissertation, I have capitalized Self-disorder (in singular) to graphically emphasize its distinction from its expressions, viz. self-disorders (in plural).

Fourth, the issue above prompts an explication of the notion of psychopathological Gestalt and its manifestations. Most importantly, patients with mental disorders rarely manifest a set

of atomic-like, *independent* psychopathological phenomena. Rather, psychopathological phenomena are best perceived as aspects of wholes (i.e., Gestalts), which comprise *interdependent* experiences, feelings, expressions, beliefs, and actions (Jaspers 1997, 28; Nordgaard et al. 2013). A psychopathological Gestalt is perhaps best grasped as a characteristic pattern, i.e., a certain unifying structure that transpires through the experiential, expressive, and behavioral phenomena that may occur within a mental disorder—it connects, shapes, and colors these psychopathological phenomena, leaving a gestaltic imprint on them and infusing them with their specific diagnostic significance (e.g., Nordgaard & Henriksen 2019, 943f.; Henriksen et al. in press-b). The upshot of this dissertation is that the underlying Self-disorder, quantitatively indicated by the gravity of EASE-measured self-disorders, has a central, structuring effect on the psychopathological Gestalt of the schizophrenia spectrum in its synchronic and diachronic unfolding. Other important aspects of this Gestalt are expressive phenomena and psychotic symptoms, which weigh heavily in the polythetic diagnostic criteria and thus definitions of schizophrenia in ICD-10 and DSM-5 as well as long-lasting social difficulties, which also are emphasized in these diagnostic manuals as highlighted in article VII (Henriksen & Nilsson 2017, 322f.).

In regard to psychosis, the work presented in this dissertation on poor insight into illness, the experiential character of primary psychotic symptoms, and double bookkeeping offers resources for a more encompassing understanding of psychosis in schizophrenia, which has implications for differential-diagnosis, treatment, and research. Traditionally, psychosis is conceived as "gross impairment in reality testing" (APA 1980, 367; cf. ICD-11), implying that patient basically mistakes the "imaginary" (e.g., thoughts, feelings or fantasy) for the real (e.g., matter of affairs in external reality). While this conception of psychosis certainly holds for some cases of psychosis (e.g., some forms of delirium, 'paranoia hypochondriaca' [Bjerg-Hansen 1976], and some cases or states of schizophrenia), it is a poor match for the nature and complexity of psychosis in schizophrenia. Here, as already Bleuler emphasized, the patients "know the real state of affairs as well as the falsified one" (Bleuler 1950, 56), implying that, due to the double bookkeeping, these patients do often not conflate their psychotic world with that the real world. Consequently, they do frequently not act in manner that would seem appropriate given the delusions or hallucinations they harbor. Within a normal framework of experience, acting is typically considered a confirmation of belief. Yet, this consideration cannot unproblematically be transferred to psychosis in schizophrenia, in which it rather seems to be the exception than the rule that the patients act upon their psychotic symptoms. Despite this, absence of, e.g., 'hallucinatory behavior'

in patients with schizophrenia is unfortunately regularly perceived by clinicians as a sign that these patients are, in fact, not hallucinated, and too often this translates into the additional view that these patients are lying either by aggravating or simulating symptoms. While such considerations may be relevant in forensic psychiatry, there is no robust scientific evidence suggesting that simulation is a real problem in general hospital psychiatry (Hay 1983; Humphreys & Ogilvie 1996). Thus, a clinician's inadequate grasp of the nature and diversity of manifestations of psychosis in schizophrenia may lead to an incorrect diagnostic decision, ineffective treatment based on this decision, and stigmatization of the patient as a person, who lies about her abnormal experiences.

Our reintroduction and revision of the concept of double bookkeeping, defining it as an ability or affliction to simultaneously live in two different worlds, namely the *shared-social* world and a *private-solipsistic* and, at times, psychotic world, offers a phenomenologically and psychopathologically more adequate conceptualization of psychosis in schizophrenia, which also is echoed in several first-person accounts of schizophrenia (e.g., Saks 2007; Jensen 2020; Mørck 2021). The notion of double bookkeeping has also psychotherapeutic implications. In two articles, which are not included in this dissertation (Škodlar et al. 2013, Fayearts et al. 2021), we spell put these implications, arguing that the limited effect of Cognitive Behaviour Therapy (CBT) for psychosis in schizophrenia (Jauhar et al. 2014; Bighelli et al. 2018) might be due to the fact that CBT generally assumes that psychotic symptoms are anchored in and pertain to matter of affairs in the shared-social world, and then precede to correct these errors (e.g., delusions conceived as inferential errors about external reality) by means of rational evaluation (e.g., by challenging beliefs, gathering disconfirming counterevidence, etc.). By contrast, the work presented in this dissertation lays the foundation for a different psychotherapeutic approach. On the one hand, the presence of self-disorders in schizophrenia spectrum disorders exemplifies a profoundly altered framework for experiencing oneself, others, and the world, affecting basic coordinates of existence such as time, space, causality, and non-contradiction as well as the very sense of what is real and what is not (Jaspers 1997, 105; Ratcliffe 2008, 194). On the other hand, many symptoms appear, for most of the time, to play out in a private-solipsistic world that is separated from that of the shared-social world (Merleau-Ponty 2002, 395; Jensen 2020). As Sass aptly put it, "The delusional world of many schizophrenic-type patients is not, then, a flesh-and-blood world of shared action and risk but a mind's-eye world" (Sass 1994, 46). In other words, many psychotic symptoms in schizophrenia do not primarily concern circumstances or events in the shared-social world. Additionally, the sudden realization and revelatory givenness of primary delusions in schizophrenia

further suggest these delusions are not adequately conceptualized as inferential errors about external reality. Thus, treating them as such in CBT for psychosis may be a reason for its limited effect. From this perspective, a psychotherapeutic approach that incorporates knowledge on the altered framework for experiencing, which seem to enable and sustain many of these symptoms, may have a better potential for treatment (Škodlar et al. 2013; Škodlar & Henriksen 2019; Fayearts et al. 2021). However, no study has yet explored if any kind of intervention, pharmacologically or psychotherapeutically, can reduce or ameliorate EASE-measured self-disorders.

In the regard to social difficulties, which also form central aspects of the psychopathological Gestalt of the schizophrenia spectrum, this dissertation proposed that enduring social difficulties may be closely linked to self-disorders and, more specifically, that self-disorders may impede or destabilize group identification and thus we-intentionality. While several empirical studies have now documented a correlation between self-disorders and social dysfunction (e.g., Koren et al. 2013; Haug et al. 2014; Raballo et al. 2018), no empirical study has yet explored the specific hypothesis that self-disorders may impede we-intentionality. However, it merits attention that no experimental design currently is available to test this hypothesis. One experimental design that is available (Warneken et al. 2012), exploring if young children's social activities are structured by joint goals, which, on our account, are indicative of we-intentionality (if these joint goals are *collectively* shared). Yet, it not clear that this design can be validly transferred to explore shared intentionality in a sample of adolescent or adult patients in psychiatry. In another study, Papoulidi et al. (2021) explored shared intentionality in children with autism spectrum disorders vs. typically developing children (matched on mental age), finding distinct patterns in social engagement in children with autism spectrum disorder, indicating a disturbance of shared intentionality. Although the results from this study generally appear conducive to our account of disturbances of shared intentionality in infantile autism, it is important to emphasize that this study relies on Tomasello's conceptualizing of shared intentionality (e.g., Tomasello et al. 2005)—a conceptualization that we proposed a revision of in our work (Salice & Henriksen 2021). Finally, the 3 identified compensatory strategies to navigate the social world in schizophrenia spectrum disorders (Henriksen & Nilsson 2017) have since been rediscovered in a small qualitative study, which found that these strategies reduced discomfort and helped patients with schizophrenia spectrum disorders to lead a social life (Nilsson et al. 2019). Obviously, corroboration from empirical studies with larger and more diverse samples is needed before any conclusions can be drawn about the occurrence and role of these compensatory strategies in schizophrenia spectrum disorders.

It is noteworthy that the above-sketched attempts to shed new light on persistent social difficulties in schizophrenia spectrum disorders are not necessarily at odds with the prevailing view that impaired social functioning in schizophrenia is an outcome of neurocognitive or social cognitive deficits. Some studies estimate that neurocognitive deficits explain approx. 20-60% of the variance of social functional outcome in schizophrenia (e.g., Green et al. 2000). The notable proportion of variance, which remains unexplained by neurocognitive deficits, prompts, however, explorations for other relevant factors or mediators of social impairment. The work presented in this dissertation supplements the existing literature on neurocognition and social functioning in schizophrenia by emphasizing a possible association between impaired social functioning and psychopathology and, more specifically, between self-disorders and the patients' social difficulties and ways of navigating the social world, respectively. Since neurocognitive deficits and self-disorders generally have been found to not correlate, one may speculate if they contribute independently to impaired social functioning in schizophrenia spectrum disorders.

Zooming out of the specifics of this dissertation, research on self-disorders has attracted and continue to attract a lot of attention. The contemporary self-disorders research, which started at Mental Health Center Hvidovre under the leadership of Prof. Josef Parnas in the 1990s, has today become a hot research topic worldwide. The accumulating evidence of hyper-aggregation of self-disorders in schizophrenia spectrum disorders, their temporal stability, diagnostic predictive value, and correlations with classical dimensions of the psychopathology of schizophrenia have already turned self-disorders into an important target of etiological and pathogenetic research (e.g., Arnfred et al. 2015; Northoff et al. 2021). However, the increasing popularity comes with a price, and therefore a word of caution seems in order.

During last few years, self-rating scales, claiming to assess "self-disorders" (e.g., SELF [Heering et al. 2016] and IPASE [Cicero et al. 2017]), have emerged. None of them, however, is properly validated with reference to the EASE. In one study, exploring the IPASE's convergent validate with the EASE, the sample was biased toward psychosis and the EASE scorings were assessed by raters without proper reliability training in the EASE (Nelson et al. 2019; cf. www.EASEnet.dk). In regard to the SELF, the authors themselves stress that it has not been correlated with the EASE (Heering et al. 2016, 75). Furthermore, previously published self-rating scales like the Cambridge Depersonalization Scale (Sierra & Berrios 2000) are now also regularly being used to assess "self-disorders". During the last few years, the number of publications based on self-rating scales to assess "self-disorders" is almost similar to that of EASE-based studies. Since

achieving reliable EASE ratings usually require a long, arduous training and presupposes psychopathological knowledge, clinical experience, and interviewing skills at the level of senior clinician, it is understandable that self-rating scales increasingly are applied to easily and quickly collect data. However, it is a matter of concern that studies based on self-rating scales typically report their findings using the same concepts as those applied in EASE research, e.g., "anomalous self experiences" (Wright at al. 2020), "minimal self-disturbance" (Nelson et al. 2019), "self-disturbances" or "self-disorders" (Gawęda et al. 2018). In doing so, these studies inscribe themselves in a particular research direction, often without highlighting the methodological differences. This conflation of concepts and methods is inducing confusion into self-disorders research, and there is every indication that this confusion will escalate in the years to come. While more empirical studies on self-disorders are needed to corroborate or challenge currents findings, explore uncharted waters, and test new hypotheses, it is pivotal that these studies are based a rigorous methodology that is adequately suited to examine this specific psychopathological object. If the literature on self-disorders becomes flooded by studies based on self-rating scales, the concept of Self-disorder risks being trivialized into banality and the significance of the empirical findings diluted.

8. Conclusion

This dissertation has provided some answers to key questions in contemporary schizophrenia. It found that the basic Self-disorder in schizophrenia spectrum disorders is a disorder of the minimal self in the sense of a frail or unstable first-personal manifestation of experience. Reviewing the empirical literature, self-disorders were consistently found to hyper-aggregate in schizophrenia spectrum disorders, suggesting a high degree of diagnostic specificity for the schizophrenia spectrum. The dissertation also offered reflections on the how the altered framework for experiencing oneself, others, and, the world, epitomized by self-disorders, affects and shapes characteristic features of the psychopathology of schizophrenia spectrum disorders, allowing a phenomenological reconsideration of concepts such as poor insight into illness, psychosis, and social difficulties. Finally, it has offered a preliminary translation of insights from phenomenological psychopathology in general and research on self-disorders in particular into tangible tools for a phenomenologically informed psychotherapy for schizophrenia. As noted above, there are several limitations to the presented work that must be appreciated when evaluating the

work. Moreover, the work generated several new hypotheses (e.g., the link between self-disorders and we-intentionality), which require empirical corroboration before conclusions can be drawn.

By identifying gaps in scientific knowledge as well as insufficient definitions of several psychopathological concepts and, in turn, by filling out some of these gaps and offering a phenomenologically and psychopathologically more faithful reconceptualization of these concepts, this dissertation has made a contribution to contemporary schizophrenia research. It is my hope that this interdisciplinary work has contributed to "close" some of the "open" psychopathological concepts a bit, while assuring their clinical precision, significance, and utility. In the end, the ultimate measure of this work is the clinical reality.

9. References

Andreasen, N.C. (1984). *The broken brain: The biological revolution in psychiatry*. New York: Harper & Row.

Andreasen, N.C. (2007). DSM and the death of phenomenology in America: an example of unintended consequences. *Schizophrenia Bulletin* 33 (1): 108–112.

APA: American Psychiatric Association (1980) *Diagnostic and statistical manual of mental disorders, third edition*. Washington, D.C.: APA.

APA: American Psychiatric Association (1987). *Diagnostic and statistical manual of mental disorders, third edition revised (DSM-III-R)*. Washington, DC: APA.

APA: American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders, fourth edition*. Washington, D.C.: APA.

APA: American Psychiatric Association (2013) *Diagnostic and statistical manual of mental disorders, fifth edition*. Arlington, VA: APA.

Arnfred, S.M., Raballo, A., Morup, M., Parnas, J. (2015). Self-disorder and brain processing of proprioception in schizophrenia spectrum patients: a re-analysis. *Psychopathology* 48(1): 60-64.

Berze, J. (1914). *Die primäre Insuffizienz der psychischen Aktivität: Ihr Wesen, ihre Erscheinungen und ihre Bedeutung als Grundstörungen der Dementia Praecox und der hypophrenen überhaupt*. Leipzig: Frank Deuticke.

Berze, J., Gruhle, H.W. (1929). *Psychologie der Schizophrenie*. Berlin: Verlag von Julius Springer.

Bighelli, I., Salanti, G., Huhn, M., Schneider-Thoma, J., Krause, M., Reitmeir, C., Wallis, S., Schwermann, F., Pitschel-Walz, G., Barbui, C., Furukawa, T.A., Leucht, S. (2018). Psychological interventions to reduce positive symptoms in schizophrenia: systematic review and network meta-analysis. *World Psychiatry* (3): 316-329.

Bjerg-Hansen, B. (1976). *Paranoia hypochondriaca*. Rigshospitalet: Psykiatrisk Poliklinik.

Binswanger, L. (1957). *Schizophrenie*. Pfullingen: Verlag Günther Neske.

Blankenburg, W. (1971). *Der Verlust der natürlichen Selbstverständlichkeit. Ein Beitrag zur Psychopathologie symptomarmer Schizophrenien*. Stuttgart: Enke.

Bleuler, E. (1908). Die Prognose der Dementia praecox (Schizophreniegruppe*). Allgemeine Zeitschrift für Psychiatrie und psychisch-gerichtliche Medizin* 65: 436-464.

Bleuler, E. (1950). *Dementia praecox or the group of schizophrenias*, trans. Zinkin, J. New York: International Universities Press.

Candini, V., Ghisi, M., Bottesi, G., Ferrari, C., Bulgari, V., Iozzino, L., Boero, M.E., De Francesco, A., Maggi, P., Segalini, B., Zuccalli, V., Giobbio, G.M., Rossi, G., de Girolamo, G.; VIORMED-1 Group (2018). Personality, schizophrenia, and violence: A longitudinal study. *Journal of Personality Disorders* 32(4): 465-481.

Cermolacce, M., Naudin, J., Parnas, J. (2007). The "minimal self" in psychopathology: re-examining the self-disorders in the schizophrenia spectrum. *Consciousness & Cognition* 16(3): 703-14.

Cicero, D.C., Neis, A.M., Klaunig, M.J., Trask, C.L. (2017). The Inventory of Psychotic-Like Anomalous Self-Experiences (IPASE): Development and validation. *Psychological Assessment* 29(1): 13-25.

de Clérambault, G. (1920). *Automatisme mental et scission du moi*. In G.G. de Clérambault, Oeuvres psychiatriques. Paris: Frénésie éditions.

de Clérambault, G.G. (1925). Psychoses á base d'automatisme. *Practique médicale francaise* 1925; 187.

Conrad, K. (1959). *Die beginnende Schizophrenie. Versuch einer Gestaltanalyse des Wahns*. Stuttgart: Thieme.

Corin, E.E. (1990). Facts and meaning in psychiatry. An anthropological approach to the lifeworld of schizophrenics. *Culture, Medicine, and Psychiatry* 14: 153–188.

David, A.S., Bedford, N., Wiffen, B., Gilleen, J. (2012). Failures of metacognition and lack of insight in neuropsychiatric disorders. *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 367: 1379–1390.

Ey, H. (1973). *Traite des hallucinations*, Tome I et II. Paris: Masson.

Feyaerts, J., Henriksen, M.G., Vanheule, S., Myin-Germeys, I., Sass, L.A. (2021). Delusions beyond beliefs: A critical overview of diagnostic, etiological and therapeutic schizophrenia research from a clinical-phenomenological perspective. *The Lancet Psychiatry*, https://doi.org/10.1016/S2215-0366(20)30460-0.

Fuchs, T. (2013). "The self in schizophrenia: Jaspers, Schneider, and beyond". In: Stanghellini, G., Fuchs, T. (Eds.), *One century of Karl Jaspers' General Psychopathology*. Oxford: Oxford University Press, pp. 245-257.

Gallagher, S., Zahavi, D. (2008). *The phenomenological mind*. New York: Routledge.

Gawęda, Ł., Prochwicz, K., Adamczyk, P., Frydecka, D., Misiak, B., Kotowicz, K., Szczepanowski, R., Florkowski, M., Nelson, B. (2018). The role of self-disturbances and cognitive biases in

the relationship between traumatic life events and psychosis proneness in a non-clinical sample. *Schizophrenia Research* 193: 218-224.

Gennart, M. (2011). *Corporéité et présence. Jalons pour une approche du corps dans la psychose*. Argenteuil: Le Cercle Hermeneutique.

Green, M.F., Kern, R.S., Braff, D.L., Mintz, J. (2000). Neurocognitive deficits and functional outcome in schizophrenia: are we measuring the "right stuff"? *Schizophrenia Bulletin* 26: 119–136.

Gross, G., Huber, G., Klosterkötter, J., Linz, M. (1987). *Bonner Skala Für die Beurteilung von Basissymptomen*. Berlin: Springer Verlag.

Guloksuz, S., Van Os, J. (2021). En attendant Godot: Waiting for the funeral of "schizophrenia" and the baby shower of the psychosis spectrum. *Frontiers in Psychiatry*, doi: 10.3389/fpsyt.2021.618842.

Guyatt, G.H., Oxman, A.D., Vist, G.E., Kunz, R., Falck-Ytter, Y., Alonso-Coello, P., Schünemann, H.J.; GRADE Working Group (2008). GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. *BMJ* 336(7650): 924-6.

Haug, E., Øie, M., Andreassen, O.A., Bratlien, U., Raballo, A., Nelson, B., Møller, P., Melle, I. (2014). Anomalous self-experiences contribute independently to social dysfunction in the early phases of schizophrenia and psychotic bipolar disorder. *Comprehensive Psychiatry* 55(3): 475-482.

Hay, G.G. (1983). Feigned psychosis—a review of the simulation of mental illness. *British Journal of Psychiatry* 143: 8-10.

Heering, H.D., Goedhart, S., Bruggeman, R., Cahn, W., de Haan, L., Kahn, RS., Meijer, C.J., Myin-Germeys, I., van Os, J., Wiersma, D. (2016). Disturbed experience of self: psychometric analysis of the Self-Experience Lifetime Frequency Scale (SELF). *Psychopathology* 49(2): 69-76.

Heidegger, M. (2007). *Being and time* (transl. Macquarrie, J., Robinson, E.). Oxford: Blackwell.

Heinz, A., Bermpohl, F., Frank, M. (2012). Construction and interpretation of self-related function and dysfunction in intercultural psychiatry. *European Psychiatry* 27; Suppl 2: S32-43.

Henriksen, M.G. (2013). On incomprehensibility in schizophrenia. *Phenomenology and the Cognitive Sciences* 12: 105–129.

Henriksen, M.G. (2018). "Schizophrenia, psychosis, and empathy". In: Englander, M. (ed), *Phenomenology and the Social Context of Psychiatry*. Bloomsbury: London, pp. 27-47.

Henriksen, M.G., Englander, M., Nordgaard, J. (in press-b). Methods of data collection in psychopathology: The role of semi-structured, phenomenological interview. *Phenomenology and the Cognitive Sciences*, doi: 10.1007/s11097-021-09730-5.

Henriksen, M.G., Nordgaard, J., Jansson, L. (2017). Genetics of schizophrenia: overview of methods, findings, and limitations. *Frontiers in Human Neuroscience* 11, doi: 10.3389/fnhum.2017.00322.

Henriksen, M.G., Nilsson, L.S. (2017). Intersubjectivity and psychopathology in the schizophrenia spectrum: Complicated 'we', compensatory strategies, and self-disorders. *Psychopathology* 50: 321-333.

Henriksen, M.G., Nordgaard, J. (2014). Schizophrenia as a disorder of the self. *Journal of Psychopathology* 20: 435-441.

Henriksen, M.G., Parnas, J. (2014). Self-disorders and schizophrenia: A phenomenological reappraisal of poor insight and noncompliance. *Schizophrenia Bulletin* 40: 542-547.

Henriksen, M.G., Parnas, J., Zahavi, D. (2019). Thought insertion and disturbed for-me-ness (minimal selfhood) in schizophrenia. *Consciousness and Cognition* 74, 102770, https://doi.org/10.1016/j.concog.2019.102770.

Henriksen, M.G., Raballo, A., Nordgaard, J. (2021). Self-disorders and psychopathology: A systematic review. *The Lancet Psychiatry.*

Hobson, R.P., Chidambi, G., Lee, A., Meyer, J. (2006). *Foundations of self-awareness: an exploration through autism*. Monographs of the Society for Research in Child Development, serial no. 284, vol. 71, no. 2. Boston, Mass.: Blackwell.

Humphreys, M., Ogilvie, A. (1996). Feigned psychosis revisted – a 20 year follow up of 10 patients. *Psychiatric Bulletin* 20: 666-669.

Husserl, E. (1975). *Logische Untersuchungen I. Husserliana XVIII*. Den Haag: Martinus Nijhoff.

Husserl, E. (1970). *The crisis of European sciences and transcendental phenomenology* (trans. Carr, D.). Evanston, IL: Northwestern University Press.

Husserl, E. (1983). *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy. First book: General introduction to a pure phenomenology* (trans. Kersten, F.). The Hague: Martinus Nijhoff.

Jansson, L. (2019). "First-rank symptoms of schizophrenia". In: Stanghellini, G., Broome, M., Fernandez, A., Fusar Poli, P., Raballo, A., Rosfort, R. (Eds.), *The Oxford handbook of phenomenological psychopathology*. Oxford: Oxford University Press, pp. 727-735.

Jansson, L., Nordgaard, J. (2016). *The psychiatric interview for differential diagnosis*. Switzerland: Springer.

Jaspers, K. (1997). *General psychopathology* (trans. Hoenig, J., Hamilton, M.W.). London: Johns Hopkins University Press.

Jauhar, S., McKenna, P.J., Radua, J., Fung, E., Salvador, R., Laws, K.R. (2014). Cognitive-behavioural therapy for the symptoms of schizophrenia: systematic review and meta-analysis with examination of potential bias. *British Journal of Psychiatry* 204: 20–29.

Jensen, G. (2020). The 2-fold reality: Schizophrenia and the banality of living in 2 worlds. *Schizophrenia Bulletin Open* 1(1), sgaa063, https://doi.org/10.1093/schizbullopen/sgaa063.

Kimura, B. (2001) Cogito and I: a bio-logical approach. *Philosophy, Psychiatry, and Psychology* 8: 331-336.

Koren, D., Reznik, N., Adres, M., Scheyer, R., Apter, A., Steinberg, T., Parnas, J. (2013). Disturbances of basic self and prodromal symptoms among non-psychotic help-seeking adolescents. *Psychological Medicine* 43(7): 1365-1376.

Kraepelin, E. (1899). *Psychiatrie. Ein Lehrbuch für Studierende und Aerzte. II. Band. Klinische Psychiatrie*. Sechste, vollständig umgearbeitete Auflage. Leipzig: Johann Ambrosius Barth.

Kronfeld, A. (1922). Über schizophrene Veränderungen des Bewustsseins der Aktivität. *Zeitschrift für die gesamte Neurologie und Psychiatrie* 74: 15-68.

Laing, R. (2010). *The divided self*. London: Penguin.

Matheson, S.L., Shepherd, A.M., Laurens, K.R., Carr, V.J. (2011). A systematic meta-review grading the evidence for non-genetic risk factors and putative antecedents of schizophrenia. *Schizophrenia Research* 133(1-3): 133-142.

Meehl, P.E. (1977). *Psychodiagnosis*. New York: W.W. Norton.

Merleau-Ponty, M. (2002). *Phenomenology of perception*. London: Routledge.

Minkowski, E. (1927). *La schizophrénie. Psychopathologie des schizoïdes et des schizophrenes*. Paris: Payot.

Mintz, A.R., Dobson, K.S., Romney, D.M. (2003). Insight in schizophrenia: a meta-analysis. *Schizophrenia Research* 61: 75–88.

Mohamed, S., Paulsen, J.S., O'Leary, D., Arndt, S., Andreasen, N. (1999). Generalized cognitive deficits in schizophrenia: A study of first-episode patients. *Achieves of General Psychiatry* 56(8): 749–754.

Moskowitz, A., Heinimaa, M., van der Hart, O. (2019). ”Defining psychosis, trauma, and dissociation”. In: Moskowitz, A., Dorahy, M.J., Schäfer, I. (2019). *Psychosis, trauma and dissociation: Evolving perspectives on severe psychopathology*. Chichester, UK: John Wiley & Sons Ltd, pp. 9-30.

Müller-Suur, H. (1950). Das Gewissheitsbewusstsein beim schizophrenen und beim paranoischen Wahnerleben. *Fortschritte der Neurologie, Psychiatrie, und ihrer Grenzgebiete* 18: 44–51.

Mørck, H.C. (2021). To see with closed eyes. *Schizophrenia Bulletin* 47(2): 273-274.

Nagel, T. (1974). What is it like to be a bat? *Philosophical Review* 83: 435–450.

Nelson, B., Li, E., Cicero, D.C., Gawęda, Ł., Hartmann, J.A., Koren, D., Polari, A., Whitford, T.J., Lavoie, S. (2019). The construct validity of the Inventory of Psychotic-Like Anomalous Self-Experiences (IPASE) as a measure of minimal self-disturbance: Preliminary data. *Early Intervention in Psychiatry* (3): 686-691.

Nelson, B., Lavoie, S., Gaweda, L., Li, E., Sass, L.A., Koren, D., McGorry, P., Jack, B.N., Parnas, J., Polari, A., Allott, K., Hartman, J.A., Whitford, J.A. (2020). The neurophenomenology of early psychosis: An integrative empirical study. *Consciousness & Cognition* 77: 102845, doi: 10.1016/j.concog.2019.102845.

Nelson, B., Thompson, A., Yung, A.R. (2012). Basic self-disturbance predicts psychosis onset in the ultra high risk for psychosis "prodromal" population. *Schizophrenia Bulletin* 38(6): 1277-1287.

Newton-Howes, G., Tyrer, P., North, B., & Yang, M. (2008). The prevalence of personality disorder in schizophrenia and psychotic disorders: Systematic review of rates and explanatory modelling. *Psychological Medicine* 38: 1075–1082.

Nilsson, L.S., Urfer Parnas, A., Nordgaard, J. (2019). Social life in the schizophrenia spectrum: A phenomenological study of five patients. *Psychopathology* 52(4): 232-239.

Nordgaard, J. (2021). *Psychopathology in the schizophrenia spectrum: the subjective dimension*. Doctoral dissertation, University of Copenhagen.

Nordgaard, J., Henriksen, M.G. (2019). “Phenomenological psychopathology and quantitative research”. In Stanghellini, G., Broome, M., Fernandez, A., Fusar Poli, P., Raballo, A., Rosfort, R. (Eds.): *The Oxford handbook of phenomenological psychopathology*. Oxford: Oxford University Press, pp. 941-951.

Nordgaard, J., Henriksen, M.G., Berge, J., Nilsson, L.S. (2019). First rank symptoms and self-disorders in schizophrenia. *Schizophrenia Research* 210: 306-307.

Nordgaard, J., Henriksen, M.G., Berge, J., Nilsson, L.S. (2020). Associations between self-disorders and first-rank symptoms: An empirical study. *Psychopathology* 53(2):103-110.

Nordgaard, J., Revsbech, R., Henriksen, M.G. (2015). Self-disorders, neurocognition, and rationality in schizophrenia: A preliminary study. *Psychopathology* 48: 310-316.

Nordgaard J., Sass L., & Parnas J. (2013) The psychiatric interview: validity, structure and subjectivity. *European Archives of Psychiatry and Psychology* 263: 353-364.

Northoff, G., Sandsten, K.E., Nordgaard, J., Kjaer, T.W., Parnas, J. (2021). The self and its prolonged intrinsic neural timescale in schizophrenia. *Schizophrenia Bulletin* 47(1): 170-179.

Overgaard, S. (2015). How to do things with brackets: the epoché explained. *Continental Philosophy Review* 48: 179–195.

Overgaard, S., Gilbert, P., Burwood, S. (2013). *An introduction to metaphilosophy*. Cambridge introductions to philosophy. Cambridge: Cambridge University Press.

Papoulidi, A., Papaeliou, C.F., Samartzi, S. (2021). Shared intentionality in children with autism spectrum disorder (ASD). *Psychology: the Journal of the Hellenic Psychological Society* 26(1): 56-72.

Parnas, J. (2007). "Subjectivity in schizophrenia: The minimal self is too small." In Grøn, A., Damgaard, I., Overgaard, S. (Eds.): *Subjectivity and transcendence.* Tübingen: Mohr Siebeck, 2007, pp. 55-69.

Parnas, J. (2011). A disappearing heritage: the clinical core of schizophrenia. *Schizophrenia Bulletin* 37(6): 1121–1130.

Parnas, J. (2017). "Diagnostic epidemics and diagnostic disarray: the issue of differential diagnosis". In: Kendler, K., Parnas, J. (Eds.), *Philosophical issues in psychiatry IV: Psychiatric nosology*. Oxford: Oxford University Press, pp. 143–145.

Parnas, J., Henriksen, M.G. (2014). Disordered self in the schizophrenia spectrum: A clinical and research perspective. *Harvard Review of Psychiatry* 22(5): 251-265.

Parnas, J., Henriksen, M.G. (2016). Schizophrenia and mysticism: A phenomenological exploration of the structure of consciousness in the schizophrenia spectrum disorders. *Consciousness and Cognition* 43: 75-88.

Parnas, J., Henriksen, M.G. (2019). "Selfhood and its disorders". In Stanghellini, G., Broome, M., Fernandez, A., Fusar Poli, P., Raballo, A., Rosfort, R. (Eds.): *The Oxford handbook of phenomenological psychopathology*. Oxford: Oxford University Press, pp. 465-474.

Parnas, J., Møller, P., Kircher, T., Thalbitzer, J., Jansson, L., Handest, P., Zahavi, D. (2005). EASE: Examination of Anomalous Self-Experience. *Psychopathology* 38(5): 236-58.

Parnas, J. Zahavi, D. (2002). "The role of phenomenology in psychiatric diagnosis and classification". In Maj, M., Gaebel, W., López-Ibor, J. J., Sartorius, N. (Eds), *Psychiatric Diagnosis and Classification*. New York: Wiley, pp. 137–162.

Pick, A. (1996). On the pathology of the consciousness of the self. A study of general psychopathology. *History of Psychiatry* 7: 324-32.

Pollack, W.S. (1989). Schizophrenia and the self: contributions of psychoanalytic self-psychology. *Schizophrenia Bulletin* 15(2): 311-22.

Pruyser, P. (1975). What splits in 'splitting?' A scrutiny of the concept of splitting in psychoanalysis and psychiatry. *Bulletin of the Menninger Clinic* 39: 1-46.

Raballo, A., Monducci, E., Ferrara, M., Fiori Nastro, P., Dario, C., RODIN group (2018). Developmental vulnerability to psychosis: Selective aggregation of basic self-disturbance in early onset schizophrenia. *Schizophrenia Research* 201: 367-72.

Raballo, A., Poletti, M., Preti, A., Parnas, J. (2021). The self in the spectrum: A meta-analysis of the evidence linking basic self-disorders and schizophrenia. *Schizophrenia Bulletin*, Jan 22, doi: 10.1093/schbul/sbaa201.

Ratcliffe, M. (2008). *Feelings of being. Phenomenology, psychiatry and the sense of reality*. New York: Oxford University Press.

Ratcliffe, M. (2012). Phenomenology as a form of empathy. *Inquiry* 55: 473–495.

Ratcliffe, M. (2017). "Selfhood, schizophrenia, and the interpersonal regulation of experience". In C. Durt, T. Fuchs, & C. Tewes (Eds.), *Embodiment, enaction, and culture: Investigating the constitution of the shared world*. MIT Press, pp. 149–171.

Saks, E.R. (2007). *The center cannot hold*. New York: Hyperion.

Salice, A., Henriksen, M.G. (2015). The Disrupted "We": Schizophrenia and Collective Intentionality. *Journal of Consciousness Studies* 22(7-8): 145-171.

Salice, A., Henriksen, M.G. (2021). Disturbances of shared intentionality in schizophrenia and autism. *Frontiers in Psychiatry* 11: 570597.

Sass, L.A. (1992). *Madness and modernism: Insanity in the light of modern art, literature, and thought*. New York: BasicBooks.

Sass, L.A. (1994). *Paradoxes of delusion: Wittgenstein, Schreber, and the schizophrenic mind*. Ithaca, NY: Cornell.

Sass, L.A., Parnas, J. (2003). Schizophrenia, consciousness, and the self. *Schizophrenia Bulletin* 29: 427-444.

Scharfetter, C. (1981). Ego-psychopathology: the concept and its empirical evaluation. *Psychological Medicine* 11(2): 273-80.

Scharfetter, C. (1996) *The self-experience of schizophrenic patients. Empirical studies of the ego/self in schizophrenia, borderline disorders and depression*. Private publication.

Schizophrenia Working Group of the Psychiatric Genomics Consortium (2014). Biological insights from 108 schizophrenia-associated genetic loci. *Nature* 511 (7510): 421-427.

Schneider, K. (1939). *Psychischer Befund und psychiatrische Diagnose*. Leipzig: Thieme.

Schneider, K. (1959). *Clinical psychopathology*. New York: Grune & Stratton.

Schneider, K. (1971). *Klinische Psychopathologie.* Stuttgart: Thieme.

Sierra, M., Berrios, G.E. (2000). The Cambridge Depersonalization Scale: a new instrument for the measurement of depersonalization. *Psychiatry Research* 93: 153–164.

Simonsen, E., Newton-Howes, G. (2018). Personality pathology and schizophrenia. *Schizophrenia Bulletin* 44 (6):1180-1184.

Škodlar, B., Henriksen, M.G. (2019). Toward a phenomenological psychotherapy for schizophrenia. *Psychopathology* 52: 117-125.

Škodlar, B., Henriksen, M.G., Sass, L.A., Nelson, B., Parnas, J. (2013). Cognitive-behavioral therapy for schizophrenia: a critical evaluation of its theoretical framework from a clinical-phenomenological perspective. *Psychopathology* 46: 249-265.

Spitzer, R.L., Endicott, J., Robins, E. (1978). *Research diagnostic criteria (RDC) for a selected group of functional disorders*, third edition. New York State Psychiatric Institute.

Stanghellini, G., Rosfort, R. (2015). Disordered selves or persons with schizophrenia. *Current Opinion in Psychiatry* 28(3): 256-263.

Stilo, S.A., Murray, R.M. (2019). Non-genetic factors in schizophrenia. *Current Psychiatry Reports* 21(10): 100, doi: 10.1007/s11920-019-1091-3.

Tomasello, M., Carpenter, M., Call, J., Behne, T., Moll, H. (2005). Understanding and sharing intentions: the origins of cultural cognition. *Behavioral and Brain Sciences* 28: 675–691.

Torrey, E.F. (2006). *Surviving schizophrenia: A manual for families, consumers, and providers*. New York: Harper.

Warneken, F., Gräfenhain, M., Tomasello, M. (2012). Collaborative partner or social tool? New evidence for young children's understanding of joint intentions in collaborative activities. *Developmental Science* 15: 54–61.

WHO: World Health Organization (1974). *Glossary of mental disorders and guide to their classification for use in conjunction with the International Classification of Diseases, 8th revision*. Geneva: WHO.

WHO: World Health Organization (1992). *The ICD-10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines*. Geneva: WHO.

Wing, J., Birley, J., Cooper, J., Graham, P., Isaacs, A. (1967). Reliability of a procedure for measuring and classifying "Present Psychiatric State". *British Journal of Psychiatry* 113(498): 499-515.

Winokur, G., Clayton, P.J. (Eds.) (1986). *The medical basis of psychiatry*. Philadelphia: W.B. Saunders.

Wright, A., Nelson, B., Fowler, D., Greenwood, K. (2020). Perceptual biases and metacognition and their association with anomalous self experiences in first episode psychosis. *Consciousness and Cognition* 77: 102847, doi: 10.1016/j.concog.2019.102847.

Zahavi, D. (2005). *Subjectivity and selfhood: Investigating the first-person perspective*. Cambridge, MA: The MIT Press.

Zahavi, D. (2014). *Self and other: Exploring subjectivity, empathy, and shame*. Oxford University Press.

Zahavi, D., Parnas, J (2009). "Bevidsthed – et grundlæggende problem i psykiatrien". In Mors, O., Kragh-Sørensen, P., Parnas, J. (Eds.). *Klinisk psykiatri*. København: Munksgaard, pp. 77-102.

Zandersen, M., Parnas, J. (2019). Identity disturbance, feelings of emptiness, and the boundaries of the schizophrenia spectrum. *Schizophrenia Bulletin* 45(1): 106-113.

10. Abstract in English

In the last two decades, empirical and theoretical work on self-disorders has attracted attention in research on schizophrenia spectrum disorders worldwide. Although the basic idea that schizophrenia fundamentally involves a disorder of the self is as old as the schizophrenia concept itself, empirical corroboration of this idea has been lacking for nearly a century. Moreover, contemporary research on self-disorders is confronted by several unsettled issues.

The purpose of this dissertation was to explore and provide answers to some of these issues. More specifically, the dissertation i) explored the nature of *self* that is referred to in the concept of self-disorders, and how this self allegedly is *disordered* in schizophrenia spectrum disorders; ii) it reviewed the accumulating number of empirical studies, assessing if there is evidence to corroborate the hypothesis that self-disorders have diagnostic specificity for schizophrenia spectrum disorders; iii) it examined how the altered framework for experiencing oneself, others, and the world, epitomized by self-disorders, may affect other characteristic features of the psychopathology of schizophrenia such as poor insight into illness and psychosis; iv) it explored how self-disorders may shed new light on long-lasting social difficulties in schizophrenia spectrum disorders; and finally, v) the dissertation examined if and how self-disorders can be addressed in psychotherapy. Given the nature and diversity of these issues, different scientific methods were applied, including reviews of the empirical literature and, for the more theoretical, yet clinically informed inquiries, standard phenomenological methods.

The dissertation found that the self that primarily is disturbed in schizophrenia spectrum disorders is the so-called 'minimal self', which designates the first-personal character of experience. Notably, a disorder at the level of the minimal self will also often cause problems at more advanced levels of selfhood such as personality or narrativity. It was argued that the minimal self is disordered in the sense of a frailty in the very first-personal manifestation of experience, and that this frailty manifests as a failing pre-reflective self-presence, causing an incomplete saturation of experiential life and enabling normally tacit aspects of mental life to emerge with alien or intrusive prominence in the midst of the patient's own subjectivity. Moreover, a consistent hyper-aggregation of self-disorders in schizophrenia spectrum disorders were found in the two Reviews of the empirical literature, suggesting that self-disorders have a high degree of diagnostic specificity for the schizophrenia spectrum. However, self-disorders were not found to be exclusive or pathognomonic for the schizophrenia spectrum as they also occur in other mental disorders, though to a significant lesser extent. Furthermore, the dissertation offered a phenomenological

reconsideration of key psychopathological features of the schizophrenia spectrum, including poor insight into illness, psychosis, and long-lasting social difficulties. Contrary to the understanding of poor insight into illness as an ineffective self-reflection, impeded either by primary defense mechanisms or metacognitive deficits, poor insight into illness was argued to be rooted in the nature of the patients' self-disorders and the revelatory givenness of primary psychopathological phenomena. In regard to psychosis in schizophrenia, it was argued that it typically manifests as a form of double bookkeeping by which patients simultaneously exist in two different worlds, i.e., the shared-social world and a private-solipsistic and, at times, psychotic world. Crucially, these worlds are usually experienced as two different, non-conflicting realities, allowing them to co-exist and only occasionally to collide. This conception of psychosis as a form of double bookkeeping has implications for the traditional conceptualization of psychosis as gross impairment in reality testing, which consequently appears too narrow and thus inadequate to capture the full range of psychotic manifestations in schizophrenia. With regard to long-lasting social difficulties in the schizophrenia spectrum, we argued that these may be linked to self-disorders and that certain forms of social engagement appear to be particularly challenging, namely those that predominately are steered by the type of shared intentionality that we referred to as 'we-intentionality'. Certain compensatory strategies to navigate the social world in schizophrenia spectrum disorders were also identified, and these seem mainly to be steered by another type of shared intentionality, viz. 'joint intentionality', which, by contrast, we argued remains unaffected in the schizophrenia spectrum disorders. Finally, insights were gathered from research on self-disorders in particular and phenomenological psychopathology more generally and formulated into concrete tools for a phenomenological informed psychotherapy of schizophrenia.

The dissertation's results and limitations were critically discussed, contextualized within the current research landscape, and new hypotheses and avenues for future research were presented.

11. Abstract in Danish

I de sidste to årtier har empirisk og teoretisk forskning i selvforstyrrelser ved skizofrenispektrum lidelser tiltrukket sig opmærksomhed verden over. Skønt idéen om at skizofreni grundlæggende involverer en forstyrrelse af selvet er lige så gammel som skizofrenibegrebet, har empirisk bekræftelse af denne hypotese manglet i næsten et århundrede. Endvidere er den aktuelle forskning i selvforstyrrelser konfronteret af en række uafklarede spørgsmål.

Formålet med denne doktorafhandling var at udforske og give svar på nogle af de mest centrale af disse spørgsmål. Mere specifikt udforskede afhandlingen: i) naturen af det *selv*, der henvises til i begrebet om selvforstyrrelser, og hvordan dette selv er *forstyrret* ved skizofrenispektrum lidelser; ii) afhandlingen gennemgik de empiriske studier på området og undersøgte om selvforstyrrelser kan hævdes at have diagnostisk specificitet for skizofrenispektrum lidelser; iii) dernæst blev det undersøgt, hvordan selvforstyrrelser, såfremt de udgør et grundlæggende træk ved skizofrenispektret, påvirker eller farver karakteristiske psykopatologiske fænomener indenfor skizofrenispektret såsom dårlig sygdomsindsigt og psykose; iv) afhandlingen undersøgte desuden om selvforstyrrelser kan kaste nyt lys over langvarige sociale vanskeligheder ved skizofrenispektrum lidelser; og endelig v) undersøgte afhandlingen om og hvordan selvforstyrrelser kan adresseres psykoterapeutisk. På baggrund af karakteren og mangfoldigheden af disse forskningsområder anvendtes forskellige videnskabelige metoder, herunder litteraturgennemgang af empiriske studier af selvforstyrrelser og for de mere teoretiske, men dog klinisk informerede undersøgelser, standard metoder indenfor fænomenologien.

For det første fandt afhandlingen, at det selv, der primært er forstyrret ved skizofrenispektrum lidelser, er det såkaldt 'minimale selv', som betegner oplevelsens første-persons karakter. En forstyrrelse på niveauet af det minimale selv vil ofte også forårsage problemer på mere avancerede niveauer af selvet såsom personligheden. Der blev argumenteret for, at forstyrrelsen af det minimale selv manifesterer sig som et svigtende, før-refleksivt selvnærvær, der forårsager en ufuldstændig mætning af oplevelseslivet og muliggør, at normalt tavse aspekter af det mentale liv kan fremtræde med en fremmedartet kvalitet midt i patientens egen subjektivitet. For det andet blev der fundet en konsistent ophobning af selvforstyrrelser ved skizofrenispektrum lidelser i de to litteraturgennemgange, hvilket antyder, at selvforstyrrelser har en høj grad af diagnostisk specificitet for skizofrenispektret. Selvforstyrrelser blev imidlertid ikke fundet at være eksklusive eller patognomoniske for skizofrenispektret, da de også forekommer ved andre psykiske lidelser, dog i væsentligt mindre omfang. Endvidere rummer afhandlingen en fænomenologisk

reformulering af flere centrale psykopatologiske fænomener ved skizofrenispektret, herunder dårlig sygdomsindsigt og psykose. I modsætning til den dominerende forståelse af dårlig sygdomsindsigt ved skizofreni som en slags ineffektiv selvrefleksion, der er hæmmet enten af primære forsvarsmekanismer eller metakognitive mangler, blev der argumenteret for, at dårlig sygdomsindsigt ved skizofreni er forankret i arten af patienternes selvforstyrrelser og den måde, som primære psykopatologiske fænomener gives på i oplevelseslivet, nemlig som en slags åbenbaring. Med hensyn til psykose ved skizofreni blev det hævdet, at psykose typisk manifesterer sig som en form for dobbelt bogholderi, hvorved patienterne på samme tid eksisterer i to forskellige verdener: den fælles-sociale verden og en privat-solipsistisk - og til tider - psykotisk verden. Oftest opleves disse verdener som to forskellige, ikke-modstridende virkeligheder, hvilket tilsyneladende tillader at de kan eksistere side om side og kun af og til kollidere. Denne forståelse af psykose som en form for dobbelt bogholderi har implikationer for den traditionelle forståelse af psykose som brist i realitetstestning. Sidstnævnte forekommer for snæver og ude af stand til at indfange hele spektret af psykotiske manifestationer ved skizofreni. Med hensyn til langvarige sociale vanskeligheder ved skizofrenispektret blev der argumenteret for, at disse kan være forbundet med selvforstyrrelser. Mere præcist blev der argumenteret for, at nogle former for social interaktion synes at være særligt udfordrende for patienterne, nemlig de former der overvejende styres af den subtype af delt intentionalitet, som vi beskrev som 'vi-intentionalitet'. Tre kompenserende strategier til at navigere i den sociale verden ved skizofrenispektrum lidelser blev identificeret, og disse synes primært at blive styret af en anden subtype af delt intentionalitet, som vi beskrev som 'fælles intentionalitet', og som hævdede forblev upåvirket ved skizofrenispektret. Endelig blev der indsamlet og syntetiseret indsigter fra forskning i selvforstyrrelser i særdeleshed og fænomenologisk psykopatologi mere generelt til at udvikle konkrete redskaber til en fænomenologisk informeret psykoterapi for skizofreni.

Endelig blev afhandlingens resultater og begrænsninger diskuteret, dens fund blev kontekstualiseret i det aktuelle forskningslandskab, og nye hypoteser og veje for fremtidig forskning i selvforstyrrelser blev præsenteret.