

Autistic Intersubjectivity

A phenomenological study of the experience and practice of social interaction in autism

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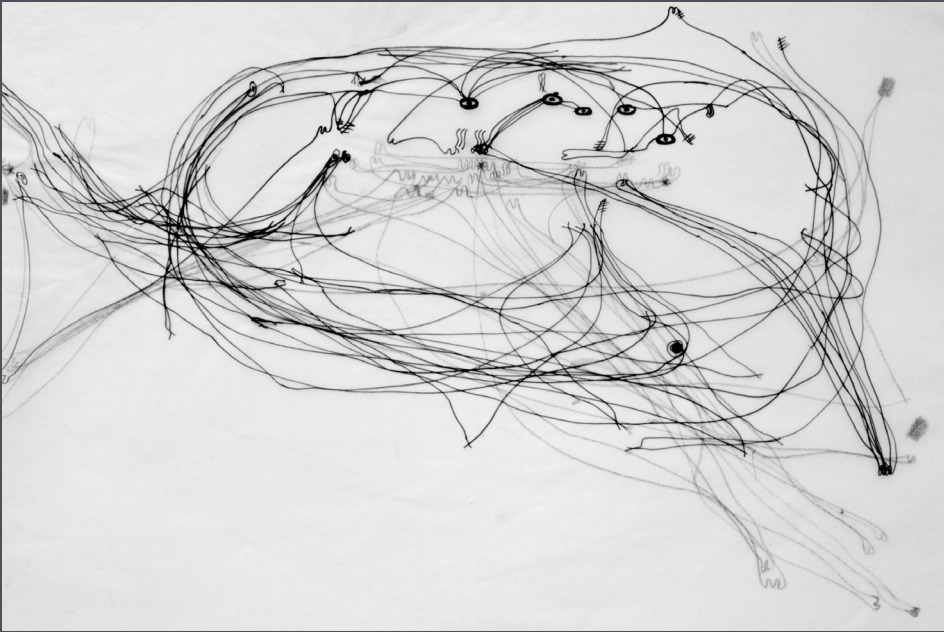
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Sofie Boldsen



Autistic Intersubjectivity

a phenomenological study of the experience
and practice of social interaction in autism

- A Ph.D. Dissertation from the Doctoral School of People and Technology



Sofie Boldsen

Autistic Intersubjectivity

A phenomenological study of the experience
and practice of social interaction in autism

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Ph.D. Dissertation
Doctoral School of People and Technology
Social Psychology of Everyday Life
Department of People and Technology
Roskilde University, October 2022

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Preface by the Doctoral School

Based on Maurice Merleau-Ponty's phenomenological understanding of perception and intercorporeality, Sofie Boldsen presents a phenomenological analysis of the experiences and practices of social interaction among adolescents and young adults with autism with the purpose of describing general features of autistic intersubjectivity. Her extensive and in-depth phenomenological studies of how young autistic people experience their difficulties in social relationships, which are supplemented with participatory observations, make an original contribution to autism research by demonstrating that autism - at least for certain groups on the spectrum - is not a psychopathological deficiency, but rather an atypical way of sensory processing. In other words, autism is an original way of being. Her research is novel in showing that autistic people can engage in social interactions with others if their interactions are centered around something physical associated with generally known rules, for example, playing a guitar, a board game, or dancing.

Autism is commonly understood as a neurodevelopmental disorder characterized by pervasive difficulties with social interaction and the presentation of rigid and repetitive patterns of behavior (the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM) and the World Health Organization's International Classification of Diseases (ICD)). These diagnostic characteristics have been commonly explained by impairments in the cognitive ability to understand the mind of others. Boldsen's research convincingly shows that autistic people interact more fluently in circumstances that are not sensory and comprehensively challenging. Her research provides not only an opportunity to understand the autistic psyche in a new way by not considering autism as a deficiency but rather a way of sensory processing that is different than what is typical.

The basic sensory problems of autistic people and their relationship to social interaction can be briefly described through some short extracts from Boldsen's empirical studies. This is how a 17-year-old girl describes a Christmas Eve with her family in one of Boldsen's interviews:

All the sounds, it is as if they become amplified. Everyone is talking, and then it is as if I just go blank. My ears are ringing, and I have trouble with where I should focus. I get very anxious, and I feel like I can't be in my own body. I don't know what to do with myself. It's hard to explain.

This form of hypersensitivity, which is typical for autistic people, is further described by another woman in a situation where she is asked a question:

But if I have to answer her, then I first have to figure out what her face is telling me, what her body posture is like, what is her tone of voice, what she is actually saying, what is the mood in the situation. Like, is she looking angry, is she angry, does she seem angry, or is she surprised, happy, etc.? All of these things have to be turned around in my head, and people expect an answer fairly fast, so if you don't answer within, say, 30 seconds, people will start to question whether you even heard them.

Given this, it is no wonder autistic people have serious problems engaging in social interactions. However, Boldsen's studies show that autistic people's interaction can be scaffolded and supported by common objects. Boldsen writes:

Line and Helene are sitting on one of the red sofas, bodies turned toward each other. Helene holds an acoustic guitar, and tunes emanate from the space between them. Both sets of eyes are turned toward the guitar in Helene's lap as Line is teaching her to play a simple melody. Helene is holding the guitar, and Line is leaning toward her. They are shifting between looking intently at the guitar and each other, their gaze meeting briefly before returning to the guitar. Line shows Helene what tunes to play by leading her fingers from string to string along the neck of the guitar.

With a keen focus on autistic people's own experiences of social interactions, Boldsen shows how difficulties in social situations are rooted in sensory differences. Furthermore, her observations indicate that shared material engagement scaffold basic bodily processes of social interaction and thereby contributes to a sense of social connection between autistic persons. Boldsen's phenomenological approach and empirical findings open new and promising avenues for future autism research.

Sofie Boldsen's thesis consists of three articles which have all been published in peer-reviewed international journals and a forthcoming book chapter for a Danish anthology, which has been translated into English. These texts are presented in a combined thesis where both methodological, empirical, and theoretical matters are presented in a context of current research in the field. Sofie has shown not only an unusual talent for carrying out phenomenological research, but also a unique understanding of contemporary conditions for psychological and psychopathological research.

Sofie Boldsen's thesis has been developed within the Ph.D. program "Social Psychology and Everyday Life." It is an independent piece of work, contributing not only to a specific research question within autism research, but also, and not least significant, it is a contribution to the basics of phenomenological research – a prerequisite for understanding human life in its social and cultural context. The program builds on transdisciplinary developments of theory, knowledge, and methodology rooted in research problems of social life and connected to the everyday life of people. In this way, the program is distinguished by problem-oriented and transdisciplinary approach to social psychology in a broad sense. Boldsen's Ph.D. thesis is not only an original contribution to the study

of autism, but it also provides empirical and theoretical considerations for introducing a phenomenological dimension to social psychology of everyday life.

Bjarne Sode Funch
Department of People and Technology
Roskilde University

Acknowledgments

Working on this project of understanding the social worlds of autism has been an enormous privilege. Exploring the various shapes and forms of how the world can be experienced and felt is a topic very close to me, and I want to mention several people who have supported me personally and academically along the way.

First and foremost, I thank my supervisors, Bjarne Sode Funch and Susanne Ravn. Bjarne, for your unbending trust and support and for providing a safe and caring base throughout this process, and Susanne, for your keen methodological eye and always constructive engagement with my texts.

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During the past four years, I have been lucky to be part of both reading and writing groups, all of which have helped develop my thinking. Here, I want to express my gratitude to Jannik and Camille for their careful and critical readings of my texts and for their friendship.

I am deeply grateful for the support and guidance of Professor Patrick Blackburn. This dissertation is, in many ways, a continuation of our previous work, which has shaped my thinking and writing in invaluable ways.

Writing this dissertation has stretched through some of my life's most trying and transformative years. Elin, you have changed my life in unpredictable, joyous, and sleep-driving ways. Mor, I wish you could have been here longer. Far, Sidsel, and Ulrikke, I am so proud of how we have stood through the past few years. And of course, Simon, thank you for holding the fort and for your excellent rubber ducking skills.

Finally, I want to thank the young people who have participated in this study. I feel privileged to have been invited into your social worlds, grateful for the time you have taken to talk to me about your experiences, and hopeful that my research will create a better understanding of the issues you are dealing with

Grant me the dignity of meeting me on my own terms.
Recognise that we are equally alien to each other, that my
ways of being are not merely damaged versions of yours.

Jim Sinclair, 1993

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Chapter 1

Introduction

Autism beyond the mind

In the 1950s and 1960s, a series of residential communes based in southern France was established by Fernand Deligny, a social psychologist and self-ascribed “primordial communist,” “weaver of networks,” and “*cartographer of wander lines*” (Hilton, 2015). Outside of Monoblet, near the Cévennes Mountains, non-verbal autistic children and adolescents lived and worked in rural encampments as an alternative to being institutionalized in large, state-run psychiatric asylums. They developed a nomadic community that settled in different sites throughout the rocky and desolate terrain of rural France. Deligny and his collaborators searched for a “mode of being that allowed them to exist even if that meant changing our own mode” (Deligny, 2015, p. 37).

The forms of life that were cultivated in Deligny’s settlements were described as “networks” (Deligny, 2015). Building on this idea, Deligny developed a methodology of cartographically tracing autistic modes of being by drawing how different trajectories, compositions, gestures, and arrangements weave the network of a social milieu (Hilton, 2015). The picture on this dissertation’s front cover is an example of such autistic “wander lines” that trace the directions of movement across a terrain over time, thereby delineating ordinary activities of daily life.¹ The patterns that emerged in his cartography represented autistic modes of being as particular ways of moving through the world and as a bodily relation to the environment. By mapping the normalcy, repetition, and basic movements in the encampment, Deligny brought attention to autism as a different form of life.

I am introducing the story of Deligny because it mirrors some essential features of my own attempt at understanding autism. Historically, the notion of autism has been remarkably unstable as both diagnostic criteria and scientific paradigms have shifted. Autism has been understood in many ways, but primarily, it has been understood as a disorder of the mind. The cognitive paradigm in autism research has been dominating and pervasive. In contrast to this understanding of autism as residing in the cognitive system, I focus on how the social world is experienced by autistic persons and how autistic forms of sociality relate to a particular way of experiencing and navigating the surrounding world. This study is a project of moving our understanding of autism. Like the wander lines of Deligny, I wish to draw attention to autism as a concrete style of engagement with the world and others.

¹ The original maps were produced on a background sheet in color situating the movement trajectories in the physical space of daily life (see Appendix 5).

Why study intersubjectivity in autism?

Making room for autistic experiences

Autism is commonly understood as a neurodevelopmental disorder characterized by pervasive difficulties with social interaction and the presentation of rigid and repetitive patterns of behavior (American Psychiatric Association, 2013; World Health Organization, 2018).² Autism is today recognized as a spectrum that includes a group of conditions differentiated by gradations in severity rather than symptom profiles. In social interactions, autistic persons may appear passive, aloof, avoid eye contact, use contextually inappropriate facial expressions or tone of voice, have difficulty understanding nonverbal interaction, and have a different sense of social timing. In the interaction with the environment, autistic persons may fixate on specific behaviors, objects, or special interests, depend on strict routines, get upset by change, engage in repetitive behaviors such as flapping hands, rocking, spinning, rubbing skin, and showing abnormally heightened or reduced sensory sensitivity. Despite these manifold features, the core of autism has been understood as a social impairment (Torres & Donnellan, 2015; Verhoeff, 2013). First-person accounts of autism reveal a profound sense of separation from the social world. For example, Liane Holliday Willey describes her detachment from the conundrum of social interaction:

I was captivated with the way their hands moved when they spoke, how they would bend them into shapes that looked like little buildings or twirl them about as if the hands were the message. I watched people like a scientist watches an experiment. Never did I feel like I was looking in a mirror. Always did I feel that I was here and they were there (Willey, 1999, p. 42).

Since the 1980s, the dominant paradigm for understanding social impairment in autism has been the theory of mind hypothesis. According to this framework, experiences such as the one described above can be explained by underlying impairment in the cognitive module, allowing us to infer the mental states of others, rendering autistic persons “mind-blind” (Baron-Cohen, 1995; Baron-Cohen et al., 1985; Leslie, 1994). The spell that theory of mind has held over autism research means that the essence of autism has been defined as a higher-order cognitive impairment. However, theory of mind has been criticized for presenting a disembodied and functionalist account of autism that fails to do justice to the perspectives of autistic persons (de Jaegher, 2013; McGeer, 2005). When cognitive impairment is proposed as the essence of autism, it leaves little space for the possible role

² Regarding the general diagnostic criteria of autism, I will refer to both the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (DSM) and the World Health Organization’s International Classification of Diseases (ICD). However, in some cases where I refer to the historical development of autism classification, I will primarily refer to the DSM.

of embodiment and subjectivity in autistic social behaviors. This reflects a general tendency in autism research to neglect the experiences and perspectives of autistic persons and to view bodily processes in autism as secondary and peripheral (Botha, 2021; Milton, 2014; Torres & Donnellan, 2015). Thus, there is a significant knowledge gap in autism research regarding the autistic persons themselves experience engaging in social interactions on a concrete bodily level. The wealth of first-person accounts that have emerged from autistic memoirs and autobiographies since the 1990's bear witness to the complexity of autistic experiences, including differences in self-experience (Grandin, 1996; Mukhopadhyay, 2011; Williams, 1992), the experience of lack of control over one's body (Biklen et al., 2005; Hale & Hale, 1999; Rubin et al., 2001), and a sense of detachment from other people (Grandin, 1996; Prince-Hughes, 2002; Willey, 1999). The question of what it is like for autistic persons to experience participating in social interactions is difficult to address within the framework of theory of mind, namely because experiences are subjective through and through. In this study, I follow recent developments in the field of autism research that, in different ways, tackle the issue of understanding the experiential dimension of social interaction in autism.

Tracing the sensory and material features of autistic intersubjectivity

In recent years, public and scientific understandings of autism have begun to shift. Motivated by a growing autism community comprising autistic self-advocates, neurodiversity scholars, online discussion fora, disability rights advocates, and autistic scholars, autism is coming into view as not only a medical condition but also a social group, identity, and culture (Straus, 2013). This movement draws attention to autism as a different way of experiencing and engaging with the world and an expression of bodily, cognitive, perceptual, and affective diversity. Autistic persons have often been described as living in their own worlds, as withdrawn, disconnected, or trapped behind an invisible wall. Autistic activists and scholars have problematized the idea of autism as a social deficit and instead drawn attention to autism as a different way of interacting and relating socially (Milton, 2012; Sinclair, 2010). This understanding draws attention to autistic social behaviors, not as expressions of underlying impairment, but as a particular form of intersubjectivity.³

³ The idea of autism as a diversity has given rise to much controversy and created a rift in the autism community among autistic self-advocates, parents, researchers, and practitioners. Jill Escher, the founder of the National Council on Severe Autism, stated, "I have two kids with nonverbal autism [...] It's an extremely severe neurodevelopmental disability – they can't talk, can't read or write, can't add one plus one, and lack any capacity for abstract thought. [Neurodiversity advocates] trivialise this, and cherry-pick naive, feel-good stories that portray autism falsely instead of grappling with the reality." Thus, there exists a deep disconnection between the narratives of autism as a diversity and autism as a severe disability. This danger of trivializing the distress and pain experienced by many autistic persons poses an important ethical dimension of working with the notion of diversity in autism research.

This study deals with autistic experiences and practices as expressive of a particular mode of intersubjectivity or a specific way the social world is disclosed and approached. My approach to exploring this issue is motivated by phenomenological approaches to autism that draw attention to how experiential and bodily differences shape autistic ways of interacting socially.

During the past decades, a growing, albeit peripheral, phenomenological orientation in autism research has studied autistic embodiment as a subjective structure shaping a particular way of engaging with the world and others. Contrary to the most popular accounts of autism, phenomenological approaches are defined by basing knowledge of autism on autistic experience. This approach draws attention to how social difficulties in autism are often expressed through the experience of not being able to connect or synchronize with the dynamics and flow of social interaction. As described by Temple Grandin,

During the last couple of years I have become more aware of a kind of electricity that goes on between people, which is much subtler than overt anger, happiness, or fear. I have observed that when several people are together and having a good time, then speech, and laughter follow a rhythm. [...] The problem is that I can't follow this rhythm (Grandin, 1996, p. 91).

From a phenomenological perspective, this “rhythm” is expressive of a primary, immediate, and bodily form of reciprocity characteristic of social interaction. Phenomenological scholars have argued that autism is defined by a difference in the immediate sense of bodily being-with-others and a disturbed ability to intuitively and fluently understand and interact with others (Fuchs, 2015, 2020; Gallagher, 2004; Zahavi & Parnas, 2003). Following a phenomenological approach to intersubjectivity informed by Edmund Husserl (1973, 1982) and Maurice Merleau-Ponty (1964c, 2012), the ability to understand and interact with others is presupposed by the perceptual experience of the other person as an embodied subject. This approach thus draws attention to how the other is concretely experienced and how experiential differences may impact how social meaning emerges on a pre-reflective level.

Phenomenological accounts of autism draw on a growing body of empirical research demonstrating the importance of sensory experience for understanding autism. In recent years, empirical research has demonstrated the crucial role played by subtle and pervasive sensorimotor differences in core features of autism (de Jaegher, 2013; Eigsti, 2013; Fournier et al., 2010; Hannant et al., 2016; Robertson & Simmons, 2013). A significant part of this research concerns the influence of sensory abnormalities, such as hyper- and hyposensitivity, sensory seeking behaviors, and sensory integration on the severity and qualitative expression of autism.

First-person accounts have for decades emphasized abnormal sensory experiences. For example, autistic poet Tito Mukhopadhyay has described how touch can be felt as if “the hair of your legs are stroked in opposite direction of their growth” (Mukhopadhyay,

2011, p. 159). Another autistic person described the experience of sensory overload as if “everything turns into a loud cacophony of sound that holds no meaning, and just surrounds you until all you can do is curl up and wait for it to be over” (McGlensey, 2016). Painful reactions to visual stimuli are also frequent, “I have to stand there with my eyes closed and hold on to something, so I don’t fall over because a lightning bolt goes through my head when the sun hits my head” (Robledo et al., 2012, p. 63). Some autistic persons describe the experience of sensory disorientation, “I know that something is coming in somewhere, but I can’t tell right away what sense it’s coming through” (Cesaroni & Garber, 1991, p. 305). One of the most famous descriptions of sensory experience in autism comes from Grandin:

From as far back as I can remember, I always hated to be hugged. I wanted to experience the good feeling of being hugged, but it was just too overwhelming. It was like a great, all-engulfing tidal wave of stimulation, and I reacted like a wild animal. Being touched triggered flight; it flipped my circuit breaker. I was overloaded and would have to escape, often by jerking away suddenly (Grandin, 1996, p. 58).

One of the earliest signs of autism is the aversion to touch, which has often been interpreted as a social withdrawal. In contrast to this understanding, the sensory experiences described above draw attention to the fact that autistic persons experience the world differently and that such experiential differences may play an important and overlooked role in how autistic persons interact with their surroundings.

The emerging focus on autistic embodiment has prompted an interest in how autistic ways of sensing and moving through the world are permeated by the experience of not fitting into or smoothly integrating with neurotypical social spaces (Krueger, 2021). An excellent example of this point is the phenomenon of masking, where autistic persons hide their autistic traits to fit into societal expectations and social norms. For example, by engaging in unwanted eye contact, avoiding self-stimulatory behaviors, or ignoring sensory stress, autistic persons mask “to reduce the threat of feeling uncomfortable through being unable to measure up to social expectations” (62-year-old autistic man, cited in Hull et al., 2017). From a critical phenomenological perspective, it has been argued that the spaces we inhabit and socialize in are not set up to accommodate autistic modes of embodiment and experience, producing a sense of being out of place. Social difficulties in autism are thus expressive of bodily disorientation rather than a cognitive deficit (Krueger, 2021). This perspective provides an important addition to the phenomenological literature because it rethinks experiential differences in autism through a notion of diversity and draws attention to how social experiences and behaviors in autism are co-constituted by material and normative spaces. This idea draws attention to the context sensitivity of social difficulties in autism and poses the critical question of how the socio-material environment may not only be disabling but also an enabling resource for social engagement in autism.

A common feature of phenomenological approaches to autism is their theoretical scope and predominant commitment to the discipline of philosophy. As has been argued previously, there is a need for developing phenomenological approaches directed at empirically and qualitatively exploring the experiences of autistic persons (Nilsson et al., 2019). This study contributes to the available literature by developing ways to phenomenologically explore autism through empirical research that takes autistic descriptions of their own experiences as a basis for phenomenological analysis of autistic intersubjectivity.

Through a qualitative study based on participant observation and qualitative interviews with autistic adolescents and young adults, I explore how autistic ways of experiencing the world impact a distinctive style of relating to others in social encounters. Moreover, I examine the characteristics of autistic styles of social engagement and how the environment may facilitate and enable social interaction processes. In this way, I approach autism as an experiential, bodily, and world-involving phenomenon that extends far beyond the structures and functions of cognition. With this study, I wish to draw attention to the marginalized forms of embodiment and experience characteristic of autism. In his rural encampments, Deligny developed a novel understanding of autism by emphasizing the bodily process of navigating a concrete environment. In the same way as Deligny, I believe that approaching autism in this way enables reimagining autistic forms of intersubjectivity as meaningful patterns of being that deserve consideration on their own terms.

Research questions

This study aims to explore and describe autistic intersubjectivity by examining how experiential differences impact how autistic persons interact with and relate to others. The study sets out to explore the following questions:

1. How do autistic persons experience social encounters and interactions, and what is the role of sensory differences in such experiences?
2. How do autistic persons establish and maintain social engagement, and how may the material environment facilitate this process?

Defining the scope

This study explores social practices among autistic adolescents and young adults in the context of leisure- and activity-based social groups offered within the Danish municipal system. Such groups are a common way to support citizens with a disability or significant

social difficulties during their transition to adulthood (Bekendtgørelse Af Lov Om Social Service, 2018). While specific offers and practices vary significantly across municipalities, the aim is often to ensure quality of life, improve social skills, and create safe places as conditions for personal and social development (PwC & VIVE, 2020). For many young people with autism, such groups constitute their primary social networks and a place of refuge from the social norms and demands of neurotypical social settings. This setting provides an alternative to how social interaction processes are typically studied in autism research, namely in dyads of autistic and neurotypical persons, where the aim is to characterize failed social competence on the part of the autistic person. In contrast, social groups present the opportunity to study how social interaction processes unfold between autistic persons in a particular social space.

The participants in the social groups selected for this study are autistic adolescents and young adults with a relatively high level of functioning. This means the experiences and practices explored in this study relate to broader issues and problems encountered by this group during their youth and transition to adulthood. Many autistic persons experience adolescence and young adulthood as the most challenging years of life (Kapp et al., 2011). Not only is the development and maintenance of social, emotional, and sexual relationships a significant challenge (Locke et al., 2010; Stokes et al., 2007), many young people with autism struggle with both education and unemployment and suffer from mental health issues, loneliness, and social isolation (Humphrey & Symes, 2010; Shtayermman, 2007). In addition, many struggle with appearing “normal” yet being painfully aware of their difference from peers (Howlin, 2004). Despite these issues, many of the participants can be labeled as “high-functioning” with typically developed language and no intellectual disability. While this does not exclude differences in communication and expression, it improves participants’ ability to describe their sensory and social experiences in the context of interviews.

While the phenomenological literature on autism often draws from various resources, a shared basis is the meaning of embodiment for social experience and interaction. Following this emphasis on intersubjectivity as a bodily and perceptual activity, my approach is informed by the phenomenology of Maurice Merleau-Ponty. With a basis in Merleau-Ponty’s concepts of perception and intercorporeality, I present a phenomenological analysis of the experiences and practices of social interaction among adolescents and young adults with autism with the purpose of describing general features of autistic intersubjectivity. Thus, this study will be relevant to autism researchers interested in the experiential dimensions of autism and phenomenological researchers interested in cases of empirical variation of the bodily structures of intersubjectivity.

Structure of the dissertation

Reading guide

This dissertation is article-based and comprises seven chapters, four articles, and a collection of appendices. The structure and order of the chapters have been chosen to present a coherent and accessible account of the social experiences and practices explored in the study. The dissertation thus reflects a narrative designed for the purposes of communication, and the order of the articles does not represent the chronological progression of the research process or the order in which the articles have been written and published.

Rather than dividing the dissertation into a kappa followed by a series of articles, the four articles are embedded in selected chapters in the dissertation. Each chapter lays out a part of the groundwork for examining the research questions and contributes to pursuing the aim of the study in different ways. Apart from chapters (1), (2), and (7), all chapters conclude with the presentation of an article. Chapters (3) and (4) should be read as introductions to the main aspects of this study's overall framework, whereas the articles contained within take up selected themes presented in the chapters and discuss them in greater depth. Chapters (5) and (6), in which the study's results are presented, contain only a brief introduction to the main themes, analyses, and results in the following articles.

Introduction to the chapters

In the following, I present a brief introduction to the content of the chapters, omitting the present chapter, and their role in pursuing the research questions.

Chapter 2: Background

This chapter provides an overview of the historical development of the concept of autism. This overview provides a background for understanding how recent approaches to studying social interaction in autism respond to prevailing paradigms in autism research and the historical shifts in scientific and public discourse on psychopathology and disability. Contemporary movements in autism research draw attention to the role of autistic embodiment in autism and emphasize the need to consult autistic experiences to understand social difficulties in autism. On this basis, I argue for the need to further develop a phenomenological approach to autism capable of engaging directly with the experiences of autistic persons.

Chapter 3: Theoretical approach

The purpose of this chapter is to outline the theoretical approach and main concepts of this study's approach to autistic intersubjectivity. I present a phenomenological account of intersubjectivity based on Merleau-Ponty's analyses of embodiment, perception, and

sensory experience. I also discuss James Gibson's notion of affordances to bring out the role of materiality in Merleau-Ponty's understanding of intersubjectivity. Drawing on critical phenomenology, I discuss how to apply Merleau-Ponty's phenomenology to the study of autism through the notion of style. This concept emphasizes the need for developing methodological approaches capable of illuminating autistic intersubjectivity through the quality and diversity of social experiences and practices.

Chapter 4: Methodology

In this chapter, I introduce the study's methodological commitments, focusing on creating the best possible conditions for the phenomenon of autistic intersubjectivity to be expressed empirically. I discuss how to apply a phenomenological theory of science to the empirical study of autism and outline how this approach has been cashed out through this study's choice of research design, data collection, analytic approach, quality criteria, and the way ethical issues have been handled during the research process. Furthermore, I discuss the possibilities for using interview-based and observational data in phenomenological analyses of social experience and interaction in autism.

Chapter 5: The sensory dimension of autistic social experience

In response to research question (1), this chapter presents an analysis of the role of sensory differences in autistic social experiences drawing on empirical data from interviews with eleven adolescents and young adults with autism. Through a phenomenological analysis informed primarily by the phenomenology of Merleau-Ponty, I identify three aspects of the sensory dimension of social experience. First, social encounters were experienced as sensorially disturbing and unpredictable. Second, the embodied expressions of others were felt as unfamiliar and threatening, producing a sense of detachment from the social situation. Third, deliberate strategies were employed to regain a sense of presence in the social encounter. This analysis contributes to the existing phenomenological literature by exploring the variety of ways sensory experiences are implicated in autistic disturbances of bodily engagement with others.

Chapter 6: Materiality and autistic social practices

The analyses of the role of sensory differences in autistic social experiences emphasize how social difficulties in autism are highly situational and context-sensitive phenomena. Building on this analysis, this chapter responds to research question (2) by exploring the role of the material and sensible environment in regulating and facilitating social interaction in autism. In this chapter, I draw on empirical data from participant observation and interviews conducted in social groups for autistic adolescents and young adults with autism. Building on both Merleau-Ponty's notion of intercorporeality and Gibson's notion of affordances, I analyze the different ways that the sensory and normative aspects of material engagement may scaffold social engagement in autism. Furthermore, I argue that

autistic forms of togetherness nuance and expand the role played by interbodily dynamics in social experience and interaction.

Chapter 7: Closing remarks

In this final chapter, I conclude the dissertation by summarizing the findings presented in chapters (5) and (6). Furthermore, I discuss possible directions for future research in phenomenology and autism research and the relevance of this study in a broader framework.

Overview of the articles

1. **“Autism, phenomenology, and bodily diversity”** [see chapter (3)].
Accepted for publication in *Psyken i Kroppen* (eds. S. Køppe, J. Toft, and H. Winther), København: Hans Reitzels Forlag.
2. **“Social Interaction Style in Autism: an Inquiry into Phenomenological Methodology”** [see chapter (4)].
Published in *Journal of Phenomenological Psychology*, 52(2), pp. 157-192.
3. **“Autism and the sensory disruption of social experience”** [see chapter (5)].
Published in *Frontiers in Psychology*, 13: 874268, pp. 1-13. Special issue: “Situating Phenomenological Psychopathology: Subjective Experience Within the World” (eds. E. Pienkos, J. Feyarts, R. Ritunnano, J. Englebert, and L. Sass).
4. **“Material encounters. A phenomenological account of social interaction in autism”** [see chapter (6)].
Published in *Philosophy, Psychiatry, and Psychology* 29(3), pp. 191-208.

Chapter 2

Background

The fluctuating notion of autism

In the following chapter, I will provide a tentative overview of how the meaning of autism has changed historically from the nascent psychiatric gaze on childhood in the 1940s to a broader view of autism as a cultural and social identity emerging in the 1990s. On this historical backdrop, I will discuss recent approaches to studying social interaction in autism and argue for further development of phenomenological approaches to autistic intersubjectivity.

The emergence of autism as an independent psychiatric entity

The emergence of autism as an independent psychiatric entity is commonly identified with the works of Swiss-American psychiatrist Leo Kanner (1894-1981). Kanner was a pioneer in the field of child psychiatry and founded the first child psychiatric clinic at Johns Hopkins University (Verhoeff, 2013). The recognition of infantile autism is thus closely related to the development of the disciplines of child psychiatry and child psychology. For example, Sigmund Freud's psychoanalysis and Jean Piaget's developmental psychology stressed the importance of early childhood for later psychological development by viewing the different phases of childhood as significant in themselves (Verhoeff, 2013). As clinicians began to develop ideas about normal development, something also stood out as deviant. This paved the way for childhood to become psychiatrically interesting and the object of a clinical gaze (Hens, 2021).

Although Kanner is typically recognized as the first to introduce autism as a psychiatric category, the psychopathological understanding of autism dates back to Swiss psychiatrist Eugen Bleuler's concept of schizophrenic autism. In Bleuler's thinking, autism was one of the primary defining features of schizophrenia and was defined as a withdrawal and detachment from the external world:

The [...] schizophrenics who have no more contact with the outside world live in a world of their own. They have encased themselves with their desires and wishes [...]; they have cut themselves off as much as possible from any contact with the external world. This detachment from reality with the relative and absolute predominance of the inner life, we term autism (Bleuler, 1950, p. 63).

Bleuler's idea of autism as a form of self-enclosure and withdrawal to a private world originated in Freud's concept of autoeroticism (Bleuler, 1950), used to describe a phase of hallucinatory thinking and self-soothing prior to the infant's relationship to outside reality (Freud, 1905). Thus, in the early 20th century, autism came to signify a form of self-orientation and enclosure within the boundaries of the self that simultaneously is a withdrawal from the world and other people.

For Eugène Minkowski, a student of Bleuler's, schizophrenic autism was not merely a detachment from the outer world but a loss of vital contact with reality. 'Reality' should

here be understood as the way the world is intuitively meaningful for us, a kind of “logic of the world” (Weltlogik), which makes us intuitively and automatically able to navigate in, understand, and act in the world (Minkowski, 1927). The world that the autistic has ultimately withdrawn from is thus that of “common sense” (Blankenburg, 2001), resulting in a weakened grasp on tacit and unspoken social norms.

Minkowski and Wolfgang Blankenburg were both fundamental to developing a phenomenological approach to psychiatry, according to which psychopathology represents an alteration of the structures of consciousness (Blankenburg, 1980). Blankenburg’s notion of common sense and Minkowski’s notion of vital contact with reality denote the pre-reflective and pre-predicative relationship between subject and world through which the world is experientially encountered as meaningful. From this perspective, intersubjectivity is understood through the pre-reflective encounter with social meaning that enables an intuitive and fluent relationship with other people.

In Kanner’s canonical 1943 article, in which he analyzes eleven cases of early infantile autism, he describes autism as an innate detachment from the social world or “an extreme autistic aloneness” (Kanner, 1943) that he likens to Bleuler’s notion of schizophrenic autism:

The extreme isolation from other people, which is the foremost characteristic of early infantile autism, bears so close a resemblance to schizophrenic withdrawal that the relationship between the two conditions deserves serious consideration (Kanner, 1949, p. 418).

However, Kanner’s autism also departed from Bleuler’s. Rather than withdrawing from the world and reality as such, Kanner’s patients “develop a remarkable and not unskillful relationship to the inanimate environment [...], can cling to things so tenaciously [and] are so concerned with the external world that they watch with tense alertness to make sure that their surroundings remain static” (Kanner, 1973, p. 95). Kanner thus identified autism as a disturbance of social relatedness and repetitive and rigid relation to the physical environment.

Psychoanalysis, autism, and refrigerator mothers

After Kanner’s classical 1943 study, an interest in the possible causes of autism soon emerged. While Kanner initially saw infantile autism as innate and biologically conditioned, he started to focus more on early psychological development and the possible role played by parents’ lack of affection. The growing influence of psychoanalysis on American psychiatry paved the way for psychiatrists and psychologists to argue that autism was primarily a psychogenic disorder caused by a disturbed family environment (Verhoeff, 2013).

Indeed, in the 1950s and 1960s, one prominent theory of autism was that autism is caused by emotionally detached and cold parenting, so-called “refrigerator mothers” proposed by psychologist Bruno Bettelheim (Bettelheim, 1967). This approach understands autism as a defense mechanism against emotionless and detached maternal behaviors and lacking stimulation and attention to the child. A number of psychoanalysts agreed with this theory and claimed that the emotional behaviors of mothers caused the development of autism (e.g., Roser, 1996 and Tustin, 1992), and psychoanalytic approaches to autism interventions were the most common approaches during this time (Howlin, 1997).

While Bettelheim is often associated with the refrigerator mother theory of autism, Kanner initially set the idea in motion through stereotypical descriptions of parents of autistic children as intelligent and intellectual but cold and obsessive around their children (Kanner, 1943, p. 250). However, as is argued by Christopher Sterwald and Jeffrey Baker through analysis of Kanner’s original Johns Hopkins case studies, these descriptions “seem to evoke not the work of a careful clinician, but the kind of ‘mother-blaming’ speculation associated with post WWII gender norms and the popularization of psychoanalysis” (Sterwald & Baker, 2019, pp. 691–692).⁴

Autism as a spectrum of conditions

In the 1980s, the category of autism developed significantly through a loosening and expansion of its diagnostic criteria. Whereas autism first was recognized as a form of childhood schizophrenia, the DSM-III (American Psychiatric Association., 1980) delineated autism as a separate diagnosis categorized as a pervasive developmental disorder. Lorna Wing’s research on autism as a “triad of impairments” was one of the most influential factors in this development. With one of the first large epidemiological studies on autism (Wing & Gould, 1979), Wing expanded autism research to include not only “pure” Kanner-type autism but also borderline cases of social impairment. This study demonstrates that “the abnormalities of social interaction, verbal and nonverbal communication, and imaginative activities so consistently occurred together [...] that they could be referred to as ‘the triad of social and language impairment’” (Wing, 1981b, p. 37). Moreover, she argued that there was no clear division between Kanner-type autism and the less severe forms that she had studied and that fundamental features of autism could only be understood in the context of this triad (Verhoeff, 2013, p. 451).

Following this understanding of autism as a broader phenomenon, the DSM-III-R (American Psychiatric Association, 1987) loosened its formulations of autistic impairment significantly. For example, the criterion “pervasive lack of responsiveness to other

⁴ See, for example, the “schizophrenogenic mother” theory proposed by Frieda Fromm-Reichmann from 1948 in which wrote that “the schizophrenic is painfully distrustful and resentful of other people, due to the severe early warp and rejection he encountered in important people of his infancy and childhood, as a rule, mainly in a schizophrenogenic mother” (Fromm-Reichmann, 1948).

people” (DSM-III) was instead formulated as “qualitative impairment in reciprocal social interaction” (DSM-III-R) (Verhoeff, 2013). In the 1980s, this broadening paved the way for the idea of autism as a spectrum of conditions sharing a common core (Bowler, 2007). Moreover, clinical descriptions by Austrian pediatrician Hans Asperger, originally published in German in the 1940s (Asperger, 1944), were revisited and made available to an English-speaking audience (Frith, 1992), which fostered an enormous interest in what became known as Asperger’s Syndrome (Verhoeff, 2013). Contrary to Kanner’s descriptions, Asperger described boys with average intelligence and language development but with a different way of using language and a tendency to abnormal fixations and special interests. However, one of the most important features imported to the autism spectrum through Asperger’s Syndrome was the awareness that autism should not necessarily be understood as a *withdrawal* from the social world. Instead, autism should be understood as a

lack of ability to understand and use the rules governing social behaviour. These rules are unwritten and unstated, complex, constantly changing, and affect speech, gesture, posture, movement, eye contact, choice of clothing, proximity to others, and many other aspects of behaviour (Wing, 1981a, p. 116).

What now became recognized as the most striking – and unifying – feature of autism was social impairment. Asperger’s Disorder became officially recognized as a formal diagnosis in 1994 with the publication of the DSM-IV. These various expansions of the criteria for autism in DSM-III and DSM-IV undoubtedly have affected the dramatically increasing prevalence of autism during the past decades. Now, it has become evident that the Asperger’s Disorder would be short, as the diagnosis is already being phased out with the publication of DSM-V and ICD-11, where the individual diagnoses of autism, Asperger’s Disorder, and atypical autism have been abandoned in favor of a distinction between degrees of severity of autism.

The cognitive revolution and the mindblindness hypothesis

During the 1970s and 1980s, an important theoretical shift occurred in autism research, where autism became associated primarily with cognitive impairment. A catalyst for the rise of the cognitive framework for understanding autism was the development of computational models in cognitive psychology (Newell et al., 1958). Understanding the mind as analogous to a computer operating through information processing as a system of representations according to a set of rules (Greenwood, 2009, p. 523) enabled an understanding of autism as a problem of metarepresentation (Leslie, 1987). This cognitive framework has produced several influential theories of autism, such as the executive dysfunction theory (Ozonoff et al., 1991) and the weak central coherence theory (Happé & Frith, 2006). However, the far most dominant account of autism emerging from the cognitive paradigm is the theory of mind hypothesis, according to which autistic individuals

are impaired in the metacognitive functions underlying our ability to “read” other people’s minds (Baron-Cohen, 1995, 2001; Baron-Cohen et al., 1985).

Theory of mind has occupied an extremely influential role, not only in the field of autism studies but also in psychology, where it has been one of the fastest growing areas of empirical research. In their highly influential 1985 study of autism, Simon Baron-Cohen, Alan Leslie, and Uta Frith proposed that autism is characterized by a lack of theory of mind. According to the theory of mind framework, social understanding is a higher-order cognitive process in which the mental states of other people are inferred based on observed behavior. To explore this capacity, the experimental paradigm of the false belief task has occupied a central role.⁵ The false belief task tests the child’s ability to form metarepresentations by forming a belief about (false) belief. In their 1985 paper, Baron-Cohen, Leslie, and Frith demonstrated that 80% of the autistic children in the study failed the false belief task. The authors thus concluded that autistic persons lack the ability to form a theory of mind. This study laid the groundwork for a quickly expanding body of research into theory of mind reasoning in autism, and the task still functions as a test of social impairment in autism.

The influence of the theory of mind paradigm can hardly be overstated, both on scientific and popular discourse on autism and the development of autism interventions since the 1980s. However, it has also been met with substantial criticism. As an account of social understanding, it has been argued that it represents an intellectualistic and individualistic account of social understanding that ignores essential aspects of social interaction (de Jaegher et al., 2010). As an account of autism, it has been criticized for producing an objectifying and dehumanizing approach that neglects the experiences and perspectives of autistic persons (Milton, 2012). This latter criticism derives primarily from the neurodiversity and self-advocacy movements that have in recent years gained footing in public, scientific, and political discourse on autism in recent years.

Autistic movements: diversity, identity, and culture

Since the 1990’s, an autistic social, cultural, and disability rights movement has reacted to this deficit model of autism and the “cure-culture” that has permeated the professional field since autism was first recognized (Bagatell, 2010; Chamak, 2008; O’Neil, 2008; Silverman, 2008). For example, organizations run by autistic persons, such as Autism Network International (ANI), organize conferences for autistic people, stimulate self-advocacy, promote awareness of autism as a difference, and reduce stigmatization (Sinclair, 2005). Such organizations seek to influence political and scientific discourse and public

⁵ The task employed by Baron-Cohen, Leslie, and Frith involves two dolls, Sally and Anne. In a hypothetical scenario, Sally hides a marble in a basket, which Anne witnesses without Sally knowing. After Sally leaves, Anne moves the marble from the basket to a box. When Sally returns to the scene, the experimenter asks the child: where will Sally look for the marble? (Bowler, 2007, p. 27).

policy, promote rights for autistic persons and improve societal support structures. Autism activist and self-advocate Jim Sinclair (one of the founding members of ANI) stated in his programmatic conference presentation and article *Don't Mourn for Us* that defining autism as a social deficit is a rejection of the possibility that autistic individuals have a different way of relating and interacting socially. Understanding autism as a social deficit assumes a shared way of being social that autistics lack. In his words,

Autism isn't something a person has, or a 'shell' that a person is trapped inside. There's no normal child hidden behind the autism. Autism is a way of being. It is pervasive; it colors every experience, every sensation, perception, thought, emotion, and encounter, every aspect of existence. It is not possible to separate the autism from the person – and if it were possible, the person you'd have left would not be the same person you started with... Therefore, when parents say, 'I wish my child did not have autism', what they're really saying is, 'I wish the autistic child I have did not exist, and I had a different (non-autistic) child instead. This is what we hear when you mourn over our existence. This is what we hear when you pray for a cure (Sinclair, 1993).

Sinclair's essay became a touchstone for the growing autism-rights movement and crucial for developing the concept of neurodiversity that is currently gaining ground in public and scientific discourse on autism. The idea of neurodiversity recognizes that human brains and minds represent infinite variation in neurocognitive functioning (Silberman, 2017; Walker, 2021). Looking at autism as a form of neurodiversity resists the predominant medical model of autism according to which it is a pathology or disorder and reconceptualizes autism as an example of natural variation and diversity. Moreover, the category of autism is understood both as a social and scientific construct and, importantly, an arena for resisting stigmatization and oppression, as expressed by the autism community's reappropriation of an autistic identity, language, and bodily expression.

Contemporary approaches to social interaction in autism

The history of autism research represents shifting and fluctuating ideas of what autism is and how to understand the social world to which the notion of autism has always been closely related. In the following, I will review contemporary approaches to autism that both challenge and continue historical trends in the field and that have each paved the way for this study's phenomenological approach to social interaction in autism.

From the autistic mind to the autistic body

Recently, a novel approach to autism has emerged that focuses on embodiment. In cognitive science, the embodiment paradigm objects to computational approaches to cognition that conceptualize cognition as input-output mechanisms and manipulation of symbols or representations (Newen et al., 2018). Instead, the mind is viewed as a relational and embodied process involving the body and its interaction with the environment. In autism research, the embodied approach is informed by the idea that action, perception, thought, and emotions are closely related and mutually constitutive (Torres & Donnellan, 2015). This focus on bodily processes in autism challenges the dominant understanding of autism as a metacognitive impairment, represented most notably by the theory of mind paradigm.

The embodied movement in autism research is motivated by a growing corpus of empirical literature that demonstrates how subtle but pervasive sensory and movement differences underlie various autistic behaviors and issues, including hypo- and hypersensitivity, differences in muscle tone and body posture, and difficulty with timing, coordination, and integration of movement and sensation (Brincker & Torres, 2013; de Jaegher, 2013; Eigsti, 2013; Fournier et al., 2010). Recent research even suggests that sensorimotor differences are associated with the severity of autism and present across the autism spectrum (Hannant et al., 2016).

It has always been known that autistic persons use their bodies in ways that are usually considered inappropriate, meaningless, or expressions of lack of social interest: from rocking back and forth, self-stimulating behaviors, spinning, finger-flicking, to odd hand postures. These behaviors have historically been conceptualized as problem behaviors to be eliminated through treatment (Boyd et al., 2012). However, in the 1990s, Martha Leary and David Hill forwarded the hypothesis that these autistic patterns of movement should not be seen as problem behaviors showing a lack of interest in social interaction but rather expressions of underlying sensorimotor differences (Leary & Hill, 1996). This idea was controversial because it suggested that autism should not be considered a social impairment but a bodily difference. Nonetheless, it paved the way for a growing interdisciplinary field of research that investigates sensorimotor differences in autism with a particular focus on their neurological underpinnings and how to develop precise methods of measuring them.

The field of research has produced influential empirical research on both the objective, measurable, and quantifiable aspects of sensorimotor differences and qualitative research on how they affect the lives of autistic individuals (Robledo et al., 2012; Torres et al., 2013). This increased focus on autism as a difference in embodiment and sensation represents an emerging shift in view from metacognitive processes and structures to the moving and sensing body that has been a significant source of inspiration in emerging phenomenological and enactivist accounts of autism.

Reciprocity and autistic social interaction

Theory of mind has been criticized for failing to address the dynamics of social interaction and for describing social understanding as a unidirectional process (de Jaegher, 2013; Fantasia et al., 2014; Gallagher, 2012; Peper et al., 2016; Reddy & Morris, 2004). Although these critiques originate in rather diverse theoretical perspectives, they mirror a recent shift in cognitive science that depart from the idea that cognitive processes are primarily “in the head” (Menary, 2010; Rowlands, 2010).

In the field of autism research, this shift in cognitive science manifests itself in current research trends that approach social interaction as a reciprocal bodily engagement in shared activities rather than merely as a case of mindreading (van Ommeren et al., 2012, 2015; Colombi et al., 2009; Liebal et al., 2008; Peper et al., 2016; Usher et al., 2015). An emerging trend in this research field is studying cooperation in autism as a paradigm case for social interaction understood as a reciprocal process. For example, Tineke van Ommeren et al. (van Ommeren et al., 2012, 2015) studied cooperative behaviors in autistic children and adolescents through an interactive drawing task, where the participant and experimenter work together to produce a joint drawing. The authors conclude that the autism group displays less collaborative reciprocity compared to a typically developed control group. In a study by Kristin Liebal and colleagues (2008), detailed coding of, for example, the frequency of communicative attempts or the number of turn-taking behaviors is proposed as a method to study reciprocal social behavior and evaluate social competence in autistic children. Despite this increased focus on social interaction as bidirectional, reciprocal, and dynamic, many studies tend to fall back on the idea that interactional fluency can be reduced to failed competence of the autistic person.

Contrary to this view, it has been argued from the field of enactivism that recent research on cooperation in autism relies on an understanding of social interaction as the result of “two de-contextualised minds reading each other’s intentions” (Fantasia et al., 2014, p. 1). As the authors argue, it is only possible to explore social interaction as an individual capability within such a framework. What is missing is an understanding of the interaction ‘as such’ and how the interaction itself can facilitate and modify participants’ intentions and create new domains of meaning. Importantly, enactivist scholars argue that the third-person perspective inherent in current approaches to studying social interaction in autism fails to consider the autistic person’s experience of being an engaged partner in the interaction (de Jaegher, 2013; Fantasia et al., 2014). This calls for approaches that explore and take seriously how autistic persons describe their experiences of social encounters.

Phenomenological approaches

In the field of phenomenological psychopathology, scholars have long argued that a phenomenological approach could provide important insights into the nature of autism (Fuchs, 2015; Nilsson et al., 2019; Zahavi & Parnas, 2003). Phenomenology offers a sophisticated theoretical framework and a methodological approach to studying subjective experience. Thus, it has been argued that a phenomenological approach could fill an important knowledge gap in autism research (Nilsson et al., 2019). Contemporary phenomenological accounts derive primarily from the fields of philosophy and psychopathology and deal with (1) self-awareness (Zahavi, 2005, 2010; Zahavi & Parnas, 2003), (2) intersubjectivity (Dant, 2014; Fuchs, 2015, 2020; Gallagher, 2004), and (3) embodiment (Boldsen, 2018; Grohmann, 2017; Krueger, 2021). In the following brief overview, I will primarily focus on the latter two foci of contemporary phenomenological research.

In a critical response to the dominating cognitive paradigm in autism research, phenomenological scholars have argued that the defining feature of autism is not an impaired ability to represent the mental states of others but rather a disturbance of the primary sense of bodily being-with-others (Fuchs, 2015, 2020). Historically and currently, phenomenologists have taken issue with accounts of social understanding based on higher-order cognition (Gallagher, 2012; Krueger, 2018; Merleau-Ponty, 2012; Wertz, 1987). Instead, they have referred to a phenomenological approach to intersubjectivity, according to which we understand and interact with each other based on a pre-reflective, intuitive, and embodied experience of the other as a subject. Based on this understanding, Dan Zahavi and Josef Parnas have described autism as a disturbance in the intuitive and pre-reflective understanding of the meaning of social interaction (Zahavi & Parnas, 2003). Following Maurice Merleau-Ponty's notion of intercorporeality, it has also been argued that autism is characterized by a loss of interbodily resonance crucial for the development of social cognition and interaction (Fuchs, 2015; Gallagher, 2004).

A shared feature between phenomenological accounts of autism is their basis in the understanding of intersubjectivity developed by Edmund Husserl and Merleau-Ponty. From this perspective, the mental states of others are perceptually available as bodily forms of expression rather than something inferred by way of metacognitive processes. In this way, a phenomenological approach invites consideration of the basic perceptual and bodily aspects of intersubjective experience in autism. This has prompted an increased focus on autistic embodiment that builds on recent research on sensorimotor differences in autism to explore the experiential structures in autistic persons' relationship to themselves, the world, and others (Boldsen, 2018; Grohmann, 2017). Furthermore, an interest in autistic embodiment has also emerged from the field of critical phenomenology, where autism is described as a particular bodily style. This implies not only an interest in the specific ways autistic persons sense and move but also in how autistic "disturbances" reflect a clash or a mismatch between autistic and non-autistic modes of being in the world (Krueger, 2021).

Toward an account of autistic experience and diversity

A common feature of the contemporary approaches to autism sketched above is their critical assessment of the theory of mind hypothesis of autism and its underlying assumptions regarding social interaction and understanding. Although from different vantage points, each objects to the idea that social difficulties in autism stem from higher-order cognitive processes. In response to the cognitivist and individualist assumptions underlying the theory of mind paradigm, they call attention to the bodily, reciprocal, and experiential processes of social interaction in autism.

Recent research on the bodily and reciprocal aspects of social interaction in autism represents an important shift in autism research by considering how autism is both an embodied and relational phenomenon. Still, there is a need to explore how sensorimotor differences and interactional processes are experienced by autistic persons and, importantly, how the bodily dimension of autism relates to experiences of participating in social interactions. How do sensorimotor differences in autism shape autistic experiences of themselves, the world, and others? And how do autistic persons experience encountering others and engaging with them in concrete interactions?

In the recent approaches to autism outlined above, there is a shared ambition of doing justice to autistic experiences. Yet, most studies tend to fall back on the idea of autistic embodiment and social interaction as objective processes that can be adequately captured through experimental methods aimed at quantifying social and bodily dynamics. Here, the phenomenological approach represents a valuable resource by building on a theoretical framework centered on subjectivity, embodiment, and intersubjectivity, and drawing from a rich tradition of exploring the experiential dimensions of various psychopathological distortions. In this way, phenomenological approaches to autism fill a significant knowledge gap in autism research by exploring autistic experiences in a field characterized by a deficiency of qualitative studies and limited inclusion of autistic perspectives in scientific practice.

Phenomenological approaches to autism have primarily emerged from philosophy and psychiatry and focused on developing a theoretical account of autism based on subjectivity, intersubjectivity, and embodiment. One important task is thus to develop a more empirically sensitive phenomenological approach to autism that engages directly with the experiences of autistic persons. In developing a phenomenological approach to autism, it is crucial to explore the concrete experiences that autistic persons have and take them as a basis for generating knowledge.

This points to another crucial perspective for further developing emerging phenomenological accounts of autism. Given the heritage of the tradition of phenomenological psychopathology, phenomenological accounts of autism tend to carry over an idea of autism as a *disturbance* in the fundamental structures of experience. As we have seen, considering autism as a form of pathology runs the risk of overlooking central aspects of

autism as a different way of experiencing and relating to the world and others and as a cultural and social entity rather than merely a psychopathological disturbance.

This study builds on these emerging trends to develop a phenomenological account of autistic intersubjectivity that engages directly with autistic persons' descriptions of their own experiences. Moreover, as I will argue in the following chapter, a phenomenological approach to perception, embodiment, and intersubjectivity constitutes a framework for understanding autism as a diversity in the experience and relation to the world and others.

Chapter 3

Theoretical approach

A phenomenology of autism

In the famous preface to *Phenomenology of Perception*, Maurice Merleau-Ponty describes Edmund Husserl's phenomenological slogan "back to the things themselves" as a critique of prevailing scientific practice and rehabilitation of an originary relation to the world prior to conceptual understanding or theoretical construction (Merleau-Ponty, 2012). The following account of phenomenology as a frame of understanding for autism will follow this basic premise that any form of knowledge and scientific discourse must be reconciled with the world as experienced. First, I will introduce the phenomenological framework of Merleau-Ponty with emphasis on the relation between embodiment, perception, and intersubjectivity, which has formed the basis of this study's theoretical approach to social interaction in autism. Second, I will discuss how I have drawn from a general phenomenological approach to psychopathology and recent approaches to phenomenology as a critical practice. Finally, the chapter concludes with an article demonstrating the potential of phenomenology for understanding the relationship between autistic embodiment and intersubjectivity (Boldsen, forthcoming).

Merleau-Ponty and the notion of intercorporeality

In popular accounts of social cognition, such as the theory of mind hypothesis of autism, it is assumed that mental states are unobservable. Because of this gap between what we have access to, the behavior of another person, and what we do not have access to, their underlying mental states, cognitive accounts need a way to bridge this gap. Often, this bridge is provided by either mental simulation (Goldman, 2006) or logical inference (Leslie, 1994; Wimmer & Perner, 1983). Both classical and contemporary phenomenologists take issue with the idea that the subjectivity of the other person is hidden and that what we are confronted with in the experience of the other is 'mere' bodily behavior (Gallagher, 2012; Husserl, 1982; Merleau-Ponty, 1964c; Scheler, 2008; Zahavi, 2001). From a phenomenological perspective, the problem of intersubjectivity ceases to be a problem when one considers the nature of embodiment (Zahavi, 2001). As Max Scheler famously put it,

For we certainly believe ourselves to be directly acquainted with another person's joy in his laughter, with his sorrow and pain in his tears, with his shame in his blushing, with his entreaty in his outstretched hands, with his love in his look of affection, with his rage in the gnashing of his teeth, with his threats in the clenching of his fist, and with the tenor of his thoughts in the sound of his words. If anyone tells me that this is not 'perception', for it cannot be so, in view of the fact that a perception is simply a 'complex of physical sensations', and that there is certainly no sensation of another person's mind nor any stimulus from such a source, I would beg him to turn aside from such questionable theories and address himself to the phenomenological facts (Scheler, 2008, p. 260).

Scheler's description of how we experience the other person's emotions directly and without cognitive mediation is paradigmatic for the phenomenological idea that what we experience when confronted with another person is not merely their bodily behavior but a unified whole of body and mind. As Merleau-Ponty argues, behavior is not a veil that hides the other's emotions, intentions, thoughts, and desires but an expressive space through which they are perceptually available to the other person (Merleau-Ponty, 1964a, pp. 52–53).

A phenomenological account of intersubjectivity is inextricably connected to an understanding of embodiment. Both Husserl and Merleau-Ponty wrote extensively on the body's double structure as both subject and object. On the one hand, the body is an object, a physiological apparatus of anatomical parts. On the other hand, the body is also a subject, enabling the experience of objects. The phenomenon of double sensation, where the body encounters itself as both touching and touched reflects this duality between subjectivity and objectivity in the body (Husserl, 1989; Merleau-Ponty, 2012). This ambivalence in self-experience reveals the subject as already other to and outside oneself. According to Merleau-Ponty, it is an extension of this ambivalence that enables the direct encounter with the other's subjectivity in perceptual experience.

Just like my own body, the other's body is encountered as both subject and object, as touching and touched. In his later works, Merleau-Ponty describes the intersubjective encounter as a form of intercorporeality:

My two hands “coexist” or are “compresent” because they are one single body's hands. The other person appears through an extension of that compresence; he and I are like organs of one single intercorporeality (Merleau-Ponty, 1964b, p. 168).

With the notion of intercorporeality, Merleau-Ponty describes the fundamental level of intersubjectivity as a reciprocal relation between two bodies. This reciprocity between bodies that Merleau-Ponty understands as the heart of intersubjectivity is in enactivist accounts of social cognition often described as a perception-action loop between self and other (Fuchs & de Jaegher, 2009). In the words of Merleau-Ponty,

A fifteen-month-old baby opens his mouth when I playfully take one of his fingers in my mouth and pretend to bite it. ... “Biting” immediately has an intersubjective signification for him. He perceives his intentions in his body, perceives my body with his own, and thereby perceives my intentions in his body (Merleau-Ponty, 2012, p. 368).

In this description, the baby immediately echoes the adults' gesture with its body, and the intention to “bite” is pre-reflectively acknowledged through its bodily ability to respond to and reciprocate the gesture. The intention is shared intersubjectively between the interacting partners (Tanaka, 2015).

According to Merleau-Ponty, intersubjectivity can be described as a form of reversibility between bodies, where “everything happens as if the other person's intention inhabited my body, or as if my intentions inhabited his body” (Merleau-Ponty, 2012, p.

191). Merleau-Ponty often speaks of intercorporeality as the formation of a system between bodies where each is a completion of the other. According to Dermot Moran, this means looking at concrete instances of social interaction as forms of interbodily “blending” (Moran, 2017), where bodies interact intuitively and spontaneously based on an immediate bodily understanding. Phillip Walsh argues that Merleau-Ponty’s concept of intercorporeality as a system relies on the idea that individual bodies are already, in a certain sense, systems that can be coupled in different ways (Walsh, 2020). Merleau-Ponty argues that the body is “not just a sum of juxtaposed organs, but a synergetic system of which all of the functions are taken up and tied together in the general movement of being in the world” (Merleau-Ponty, 2012, pp. 280–281).

It should be emphasized that, according to Merleau-Ponty, the relation between parts in a system is not a mere functional relation but one that is lived through and experienced. An important implication of this way of thinking about intersubjectivity is that one can imagine different “intercorporeal systems” taking form depending on what individual “bodily systems” are coupled within the system. Moreover, one can imagine how one bodily system may be more easily paired with some rather than others. In the context of autism, the recent acceleration in research concerning autistic embodiment and how it relates to social difficulties in autism can be understood as a recognition of this way of thinking: that social difficulties in autism are not reducible to social impairment but rather due to a mismatch, or friction, between different modes of bodily being in the world.

Perception and sensory experience

Merleau-Ponty’s thought continuously revolved around the question of what it means to perceive. His 1948 radio lectures even began with the remark that “the world of perception is, to a great extent, unknown territory” (Merleau-Ponty, 2004, p. 39). To explore this territory, Merleau-Ponty’s strategy was to return to concrete, perceptual situations in which we experience the world (Alloa, 2017). Merleau-Ponty’s quest can in some way be seen as trivial since perceptual experiences often represent our most ordinary and familiar encounters with the world. However, in line with Husserl’s phenomenological project, the ordinary and taken-for-granted experience of the world is precisely the starting point of phenomenological philosophy (Husserl, 1983). As Merleau-Ponty famously stated in the preface to *Phenomenology of Perception*, the primary project of phenomenology is to uncover the world of experience that exists prior to scientific thought (Merleau-Ponty, 2012, p. lxxii). Science is an abstraction of the lived world encountered in perception, and thus, to understand the world, we must return to how it appears in perceptual experience.

According to Merleau-Ponty, perception is a bodily activity, but importantly, this implies an idea of the bodily activity as more than the workings of a system of objective, physiological processes. For Merleau-Ponty, the body is the ground of perception, understood as the unity of a perceiving subject and a perceived world. Here, Merleau-Ponty takes issue with what he calls “objective thought,” according to which the body can be

described as a system of or relation between objects that have definite properties and that is open to causal explanation (Merleau-Ponty, 2012, p. 70). According to Merleau-Ponty, the body defies such description. Rather than being an object itself, the body, through its relation to the world, is the means by which we experience objects. It is thus itself experienced in a way that definitively distinguishes it from any worldly object. In this way, Merleau-Ponty introduces an ambivalence in the subject's bodily relation to itself. The body is both a physical being *and* an experiencing subject (Merleau-Ponty, 2012, p. 98).

According to Merleau-Ponty, perception is a bodily activity. The body subject should be understood through its intentional directedness towards the world, and thus, objects are meaningful by virtue of the body's practical and motor engagement. In this way, perception is inextricably tied to bodily movement. This point is emphasized by Merleau-Ponty's concept of the body schema, which describes how the body is experienced as a whole in its practical and motor directedness toward the world. Here, worldly objects are experienced as *poles of action*, as the natural *milieu* of the subject's experience and activity (Merleau-Ponty, 2012, pp. 108–109). Thus, in his study of perception, Merleau-Ponty finds the intimate relation between subjectivity, body, and world. This also emphasizes how perception is an active bodily communication with, rather than something “exerted on,” the world (Merleau-Ponty, 2012, p. 53). In other words, perception is a way of “sensing and touching the world, whereby the subject gets in close contact with what is sensed, moves towards it, and is moved by it” (Thoma & Fuchs, 2017, p. 139).

This theoretical framework opens an important dimension of autism and an important analytic entry point to the study of autistic intersubjectivity, namely through the relation between sensory and perceptual features of autistic experience and the diminished ability to interact fluently and flexibly with the surrounding world and other people. In the phenomenology of Merleau-Ponty, perceptual meaning is tied to the possibility of bodily interaction. In the case of autism, such possibilities seem particularly limited in the case of social interaction. In this dissertation, I have pursued this idea further by building on Merleau-Ponty's analysis of the perceptual dimension of social experience.

The idea that the experience of others as subjects is of a perceptual nature takes us back to the notion of intercorporeality. Consider the following:

I perceive the other's grief or anger in his behavior, on his face and in his hands, without any borrowing from an “inner” experience of suffering or of anger and because grief and anger are variations of being in the world, undivided between body and consciousness, which settle upon the other's behavior and are visible in his phenomenal body, as well as upon my own behavior such as it is presented to me (Merleau-Ponty, 2012, p. 372).

Merleau-Ponty insists that we have direct perceptual access to the other's mental states, emotions, intentions, etc., which consequently cannot be understood as “inner” states but rather “variations of being in the world.” Social encounters are thus perceptual events, which are structured according to the basic features of perceptual experience.

When Merleau-Ponty somewhat enigmatically states that “the whole riddle of *Einfühlung* lies in its initial, “esthesiological” phase” (Merleau-Ponty, 1964b, p. 170), he emphasizes, in other words, how the experience of others is first and foremost a sensory experience that confronts us with the other as a different sensibility. In relation to autism, this perspective enables an understanding of how sensory differences in autism affect both the experience of others and the possibility of social interaction.

Intercorporeality and the world as “pole of action”

Part of this dissertation’s reading of Merleau-Ponty’s phenomenology has been practiced as a dialogue with James Gibson’s psychology of perception, particularly his notion of affordances. Such dialogue between Merleau-Ponty and Gibson can often be found in enactivist accounts of cognition and perception (Gallagher, 2017). Reading Merleau-Ponty alongside Gibson’s notion of affordances brings out more clearly Merleau-Ponty’s idea that what we perceive is the interactive possibilities offered by the world. In the following, I will introduce how I see this connection and its implications for understanding autistic intersubjectivity.

Merleau-Ponty emphasized how “having a body means being united with a definite milieu, merging with certain projects, and being perpetually engaged therein” (Merleau-Ponty, 2012, p. 84). Bodily behavior should thus be understood as the relation between a body and a concrete world, where the body orients itself toward its surroundings. Drawing on Kurt Lewin’s notion of “psychological field,” Merleau-Ponty emphasizes how this world, or milieu, is not just a material space but a field of potentiality in which the body is engaged. Merleau-Ponty’s idea of perception involves a coupling between body and environment (Walsh, 2020). The world is experienced as a network of solicitations that motivate particular forms of perceptual and motor engagement. Importantly, these solicitations and corresponding bodily engagement are norm-governed such that the subject is guided “toward a ‘maximal grip’ or ‘perceptual optimum’ such that we are ‘geared in’ to the perceptual situation” (Walsh, 2020, p. 17).⁶ Rather than a passive process, perception should be understood as a form of communication with the world where the body takes up and responds to the world’s solicitations. The world of perception with its manifold of objects thus exists as “that which is met with or taken up by our gaze or by our movement, a question to which they respond precisely” (Merleau-Ponty, 2012, p. 331).

This way of thinking about the relation between subject and world resonates with the theory of perception developed by Gibson, according to which perception is the gathering of the environment and an organism’s mode of interaction with it (Gibson, 1979). Perceptual meaning arises as the experience of the world as a field of possible actions, and according to Gibson, what is perceived is what objects afford. In this way, the notion of affordances links perception to the subject’s bodily interaction with the world, where

⁶ See Hubert Dreyfus (2002) for a similar view.

perception communicates the world's invitational character (Boldsen, 2022b; Gibson, 1979). This understanding aligns with Merleau-Ponty's analysis of perception as inextricably linked with the body's ability to interact with the world and others. In fact, Merleau-Ponty comes very close to developing his own notion of affordances. Consider the following,

Likewise, the patient need not seek a situation and a space in which to deploy concrete movements, this space is itself given, it is the present world: the piece of leather "to be cut" and the lining "to be sewn." The workbench, the scissors, and the pieces of leather are presented to the subject as poles of action; they define, through their combined value, a particular situation that remains open, that calls for a certain mode of resolution, a certain labor (Merleau-Ponty, 2012, pp. 108–109).

Here, Merleau-Ponty describes how the world is neither an objective nor neutral space but a situation, which is normative in the sense that it demands being worked in some particular way by affording some modes of engagement rather than others. In recent years, much work has been done to develop the notion of affordances in a direction that emphasizes its social, cultural, historical, and normative features (Elias, 2017; Pedersen & Bang, 2016; Rietveld et al., 2013). In this dissertation, I argue that the case of autistic intersubjectivity brings out an aspect of affordances that highlights its social and normative dimensions. Merleau-Ponty's and Gibson's theoretical frameworks thus motivate thinking about how material objects, practices, and environments can scaffold interpersonal engagement in autism (Boldsen, 2022b). This understanding invites a reading of Merleau-Ponty's analysis of intercorporeality as materially situated and involving the environment. According to Walsh, the theory of perception has important implications for how to understand intercorporeality as a coupling between bodies:

Thus, when he characterizes the intercorporeal self-other system as a totality of behavior we must understand this to necessarily include the immediately surrounding environment. In other words, if the intercorporeal self-other system is understood as the interlocking of behavior, and behavior is necessarily indexed to a concrete situation, then we must understand the former as something that is also necessarily indexed to the immediate context in which it arises (Walsh, 2020, p. 14).

Social experience is thus not only a question of perceiving another body but encountering a different mode of orientation toward a shared situation. Understanding the other person is thus not only about understanding their bodily behavior but understanding the situation to which it is a response. In my view, Merleau-Ponty's theory of perception and intersubjectivity enables us to look at social processes in autism as not only embodied but also inherently material and situational. As I argue in chapter (4), Merleau-Ponty's phenomenology thus enables a way out of the tendency in autism research to present unilateral explanations, where disturbances in social interaction and understanding are ascribed to social impairment in the autistic person. The phenomenological notions of embodiment, perception, and intersubjectivity thus present ways to think critically about

the social dimension of autism. In the following, I will introduce how this study's approach to autistic intersubjectivity follows a critical approach to phenomenological psychopathology.

Autism, psychopathology, and critical phenomenology

Phenomenological psychopathology

Since Karl Jaspers introduced Wilhelm Dilthey's distinction between understanding and explanation in the field of psychiatry, phenomenological psychopathology has aimed to understand and describe the structures of the patient's complex and diverse experiences from a first-person perspective (Hoerl, 2013; Jaspers, 1913). This approach to psychopathological phenomena can be described as an ambition to grasp "what is human in apparently alienating [...] phenomena" (Stanghellini et al., 2019, p. 5). By elucidating how psychopathological phenomena appear in a person's lifeworld, the phenomenological approach sheds light on the experiential structure and meaning of such phenomena and aims to "rethink the meaning of psychopathological conditions" (Stanghellini et al., 2019, p. 5).

Recently, it has been argued that phenomenological psychopathological studies contain a critical potential by resisting objectifying and reductionistic accounts of mental illness (Zahavi & Loidolt, 2022) and by validating the patient's perspective and experiences (Ritunno, 2022). In my view, this casts the role of phenomenological psychopathology as one of describing the breadth and wealth of how the world can be experienced and engaged with as differences rather than deviances. In the context of autism studies, it furthermore requires setting aside commonsense attitudes about intersubjectivity and an openness to the particularity of autistic modes of social engagement.

Despite the ambition of rethinking psychopathological phenomena through how they appear from a first-person perspective, phenomenological psychopathology still relies on a certain normativity by focusing on how consciousness and subjectivity can be altered or thrown out of balance in mental illness. Focusing on how the relationship between subject, world, and others can become disturbed, disrupted, destabilized, lost, or broken down in various psychopathological phenomena presupposes an understanding of normality and deviance. Indeed, pathological phenomena are often assumed to explicate shed light on basic existential conditions that are otherwise unnoticed (Carel, 2013). For example, a phenomenological approach to schizophrenia (see Blankenburg, 2001; Minikowski, 1927; Sass & Parnas, 2003) relies on the premise that

Schizophrenic abnormalities involve such profound deviations from aspects of normal human experience that they exhibit usually taken-for-granted, unnoticed conditions of normal, daily experience (Zahavi & Parnas, 1998, p. 699).

Kristian Martiny argues that this phenomenological approach to illness is problematic in the understanding of congenital and developmental disability because risks describing disabled embodiment and subjectivity as disrupted, alienated, doubtful, or problematic (Martiny, 2015). Building on a conceptual framework that focuses on the transition from health to illness risks overlooking central aspects of experiencing and living with disability. Martiny argues instead for looking at phenomenological concepts such as embodiment, intersubjectivity, and being-in-the-world as gradual and developmental notions that enable an understanding of experiences of disability as “being gradually different from, rather than disruptive of, the experience of being abled” (Martiny, 2015, p. 554).

Critical phenomenology and the style of autism

From the growing field of critical phenomenology, it has been emphasized that the focus on universality in the phenomenological tradition risks neglecting minoritized identities and modes of embodiment (Ahmed, 2007; Lajoie & Douglas, 2020). Following this perspective, the study of autism also implies a critical reflection on how phenomenology “much like the phenomena it studies, too, has a tacit background that has largely become taken-for-granted” (Lajoie & Douglas, 2020, p. 5). The notion of autistic intersubjectivity draws from this critical approach to phenomenology by making use of Merleau-Ponty’s concepts of embodiment, perception, and intersubjectivity as resources for thinking about autism as a pathologized, rather than pathological, mode of relating to the world and others.

Indeed, Merleau-Ponty’s phenomenology has played a key role in critical phenomenological analyses of the body as a site for experience, habit, normativity, and even historicity and discourse (Weiss et al., 2020). In the context of autism research, this critical potential is valuable since the field has historically neglected autistic testimony and personal accounts, which have been treated as unreliable and irrelevant to a scientific understanding of autism (McGeer, 2005; Milton & Bracher, 2013). This study resists this problematic tendency in autism research by practicing the phenomenological concern with experience as a way to interrogate atypical and diverging modes of being in their own right. In this regard, I employ Merleau-Ponty’s notion of style as a critical phenomenological concept that facilitates theoretical sensitivity to the phenomenological dimensions of autistic intersubjectivity. As with most of Merleau-Ponty’s theoretical concepts, the meaning of style can be difficult to stabilize. As an ontological concept, it describes the mode of presentation that unites and permeates the particular qualities and possible presentations of a given object:

This piece of wood is neither an assemblage of colors and tactile givens, nor even their total Gestalt; rather, something like a woody essence emanates from it, these “sensible

givens” modulate a certain theme or illustrate a certain style that wood is, and that establishes an horizon of sense around this piece of wood and around the perception I have of it (Merleau-Ponty, 2012, p. 476).

In this quote from *Phenomenology of Perception*, the idea of style comes close to what has often been describes as “essence” in classical phenomenology. The “woodiness” gives the object the particular feel, smell, texture, etc., that we recognize as wood. Merleau-Ponty develops his concept of style through his work on art (Almog, 2018; Singer, 1981). In this context, the notion of style is an inherently qualitative term that understands what something is in terms of “how” it expresses itself. In his analysis of autism, Joel Krueger points to the critical potential of the notion of style. Understanding autism as a bodily style draws attention to how autistic persons experience and navigate the world. Importantly, it also implies an understanding that autistic “symptoms” only emerge as a *stylistic dissonance* between autistic and neurotypical ways of navigating shared spaces (Krueger, 2021). Understanding autism through the notion of style means critically interrogating how particular forms of intersubjectivity emerge through different forms of perception, movement, and expression and how such forms of intersubjectivity may flourish or become problematic in different contexts and spaces.

Autism and the phenomenology of intersubjectivity

Building on an understanding of intersubjectivity as reciprocal in a strong sense of the word, this dissertation starts from the idea that autism cannot be reduced to how autistic persons misperform in social situations characterized by neurotypical norms and demands. In this way, mobilizing the notion of style to describe psychopathologies, such as autism,

“draws attention to the qualitative differences between various modes of inhabiting the world rather than a normative understanding of one mode being an impoverished version of another” (Boldsen, 2022b).

With inspiration from the critical phenomenological emphasis on experience, embodiment, and intersubjectivity as sites for pathologization and disablement, I develop an understanding of social interaction in autism as a relational process that can be disturbed in the encounter between different styles of experience, expression, and bodily navigation (Milton, 2012). Phenomenology has been described as a mode of thinking “through” or “with” experience, and as Shiloh Whitney emphasizes, “thinking through experience means thinking through *different* experiences [my italics]” (Whitney, 2014, p. 32). This has methodological ramifications for how phenomenological research ought to handle this diversity and variation.

In line with Gayle Salamon’s analysis of disabled embodiment, disability and pathology can, by presenting variations in the relationship between body and world, illuminate

tacit and unnoticed dimensions and structures of experience, such as perception, embodiment, action, and affect (Salamon, 2012). While this study is not aimed at contributing to philosophical analyses, Salamon's proposal points to important perspectives of the case of autism, following recent approaches to using empirical cases in phenomenological analyses (Krueger & Michael, 2012; Ravn & Höffding, 2016). Autistic experiences and practices of social interaction show how social connectedness can be practiced and mediated in atypical ways. An important avenue for further research is exploring how these atypical forms of social connectedness may enrich phenomenological analyses of intersubjectivity.

Article 1

Autism, phenomenology, and bodily diversity

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Abstract

Since the 1980s, the core of autism has primarily been understood as an impairment in the ability to reason about the mental states of others. This theory has recently been criticized for presenting a disembodied account of autism that fails to take into account the experiences of autistic persons. In this article, I outline how phenomenology presents a potential theoretical framework for reinterpreting autism in terms of its bodily and experiential features. By drawing on Maurice Merleau-Ponty's phenomenology of the body, particularly his understanding of perception and intercorporeality, I illustrate the potential of phenomenology to illuminate the connection between autistic forms of embodiment and intersubjectivity. Through a phenomenological analysis of qualitative data from an ongoing research project on social interaction in autism, I argue that autistic differences in movement and perception can alter the person's mode of bodily being-with-others. This analysis draws attention to the critical potential of phenomenology to challenge the historical tendency in autism research to neglect autistic experiences and to productively develop a relational and embodied understanding of autism.

Keywords: Phenomenology, autism, embodiment, intersubjectivity, Merleau-Ponty

⁷ This article has been translated from Danish to English by the author for publication in this doctoral dissertation. Original title: "Autisme, fænomenologi og kropslig diversitet."

Introduction

Of the many contributions of phenomenology to philosophy, psychology, and psychiatry, the analysis of the body is perhaps the most important and influential (Doyon & Wehrle, 2020). Despite its historical and current significance in cognitive science (Newen et al., 2018), the phenomenological understanding of the body has not yet gained a firm foothold in psychiatry. Indeed, Jim Toft points out in this book that psychiatry is disembodied (Toft, 2022). Hanne de Jaegher points to the same trend in autism research and calls for an approach to autism based on the embodiment, experience, and social interaction of autistic persons (De Jaegher, 2013, p. 158). In this chapter, I will outline how phenomenology presents a theoretical basis for such a reinterpretation of autism through its bodily and experiential relation to the world and others. During the analysis, I will include a collection of cases from autobiographical literature and qualitative research in the field, as well as a series of interviews from an ongoing study of autistic social experience. Based on a phenomenological analysis of these empirical examples, I will show how autistic experiences can help develop new understandings of autism based on the idea of pathology as a fundamentally meaningful bodily relationship to the world and other people.

An introductory note on language. My choice of the term "autistic person," "autistic embodiment," "autistic sensing," etc., relates to the debate about whether people diagnosed with autism should be referred to as "people with autism" (person first) or "autistic people" (identity first). The term "person with autism" usually intends to emphasize the value and humanity of the person by recognizing them as persons rather than identifying them with a psychiatric diagnosis. Yet, in the autism community and disability movement, this term is seen as expressing a problematic understanding of autism as a curable disease or an error that should be corrected (Botha et al., 2021; Vivanti, 2020). According to autism activist and author Lydia XZ Brown, the separation between the person and autism in the term "person with autism" implies that "autism is entirely separate from what gives him or her value and worth," and ultimately, an understanding that "it would have been better if he or she had been born typical" (Brown, 2011). My choice of the term "autistic person" thus recognizes that autism is increasingly understood by those diagnosed with autism as an integral part of a person's identity and being. This, I believe, should be confirmed and validated – especially in a scientific context, where knowledge about autism is developed and negotiated.

Autism is defined in the diagnostic criteria as a developmental disorder characterized difficulties in social communication and interaction as well as restricted interests and repetitive behaviors (American Psychiatric Association, 2013; World Health Organization, 2018). Since the 1980s, the basic features of autism have primarily been explained as expressions of an underlying disturbance of the ability to think about the minds of others (Baron-Cohen et al., 1985). This reduces the wide range of autistic social difficulties to a cognitive problem. In the same movement, it reduces intersubjectivity to a series of log-

ical reasoning processes, which autism researcher Simon Baron-Cohen compares to playing chess (Baron-Cohen, 1995). In such a cognitive paradigm, the bodily manifestations of autism constitute a blind spot. When the cognitive machinery is assumed to constitute the essence of autism, the autistic body is left as a fundamentally uninteresting and meaningless entity.

The last decade has brought increased awareness of the autistic body. Empirical research has demonstrated subtle but profound sensory-motor differences, such as atypical responses to sensory input as well as difficulties in bodily control and coordination, that are now considered fundamental features of autism (Donnellan et al., 2013; Eigsti, 2013; Fournier et al., 2010; Robertson & Baron-Cohen, 2017; Robledo et al., 2012). In other words, autism is increasingly recognized as a different way of sensing and moving. But how should these sensory and movement differences be understood? On the one hand, sensorimotor research describes the bodily structures of autism as a system of objectively measurable and quantifiable processes (Torres & Donnellan, 2015). On the other hand, it is emphasized that we need to understand these sensorimotor differences through how they manifest in subjective experience (Robledo et al., 2012). The autistic body is thus described through a tension between being a system of objectively measurable physiological processes and being a subjective structure of experience that must be explored in its own right. To understand autism, we must first understand this duality in the body between physiology and subjectivity. An obvious resource in this context is the tradition of phenomenological psychopathology, where the body has gained renewed interest in the slipstream of the growing field of body-focused approaches in cognitive science (Fuchs & Schlimme, 2009; Tewes & Stanghellini, 2020).

The phenomenological understanding of the body has its origin in the analysis of the dual constitution of the body as subject and object: as both that which allows us to experience objects and as a perceptual object itself (Merleau-Ponty, 2012). Here, the body is understood as a constitutive part of human subjectivity rather than its mere biological medium. In phenomenological psychopathology, this tension between subjectivity and objectivity in the body is treated as a fundamental dimension of the nature and development of various mental disorders. For example, depression is characterized through the concept of corporalization as an experience of the body's weight, solidity, and materiality and simultaneous disruption of its sensory, motor, and affective resonance with the world (Fuchs, 2013) and eating disorders are emphasized as a bodily alienation that causes a need for experience of control over own body (Osler, 2021; Svenaeus, 2013). Another paradigmatic example is schizophrenia, which phenomenologically has been described as the decoupling of consciousness from the lived body, which is expressed in an experiential loss of the pre-reflective and immediate contact with the surrounding world, oneself, and other people (Sass & Parnas, 2003).

These phenomenological descriptions of psychopathology represent a particular pre-occupation with how the experiential relationship between the body as subject and the body as object can be disturbed and thrown out of balance. In this chapter, I will argue

that autism challenges this understanding of the body since the case of autism does not show the rupture, loss, or disturbance of a bodily norm but rather a diversity in embodiment. This illuminates a difference in the psychopathological potential of phenomenology. Where the phenomenological understanding of embodiment in schizophrenia, eating disorders, borderline, or depression can illuminate transformations and disturbances, it shows its potential in autism research by emphasizing the body as a particular style that can take different forms. In this chapter, I will examine how autism can be understood through such a concept of bodily diversity. First, I will extract some general phenomenological points about the body informed by the philosophy of Maurice Merleau-Ponty. Second, I will present an analysis of autism as a bodily style and diversity in how the world is experienced and navigated. This highlights the potential of phenomenology as a critical voice in autism research that, through its understanding of bodily subjectivity, brings autism into view as a relational phenomenon that unfolds in the dialogue between subject and world.

Body, world, and pathology in Merleau-Ponty's thinking

Merleau-Ponty concludes his analysis of the brain-damaged war veteran Schneider with the famous words: "Illness [...] is a complete form of existence" (Merleau-Ponty, 2012, p. 110). Here, Merleau-Ponty points out that pathology cannot be understood as a deviation, weakening, or disturbance from a norm. Instead, pathology concerns the wholeness of existence, and as Merleau-Ponty emphasizes, embodiment is its most fundamental feature. The body is the condition of possibility for the experience of and interaction with the environment. What we understand as pathology, disease, disorder, or abnormality must therefore be understood as manifested in and structured by the bodily relation to the world. The task of phenomenology is one of "grasping their sense, that is in treating them as modalities and variations of the subject's total being" (Merleau-Ponty, 2012, p. 110). Historically, autism research has neglected the experiences, perspectives, and subjectivity of autistic people (Milton & Bracher, 2013; Nilsson et al., 2019). In response, a phenomenological approach views autism as more than a psychiatric object, namely as a particular form of subjectivity and being. Thus, bodily differences in autism cannot be understood as mere physiological and measurable processes. As we shall see in the following, the body's movements and sensations are described in phenomenology as relations of meaning between subject and world.

The phenomenological distinction between Leib and Körper

The phenomenological understanding of the body takes its point of departure in the remarkable fact that the body is both subject and object. On the one hand, the body is an object, a physiological apparatus of various anatomical parts that can be measured, weighed, and made the object of medical or scientific scrutiny. On the other hand, the body is what enables the experience of such objects. In other words, the body's perception of and movement in the world constitutes one's perspective on oneself and one's

surroundings. Already in *Ideas II* (1989), the founder of phenomenology, Edmund Husserl, pointed to the distinction between the body as subject, *Leib*, and as object, *Körper*, through the phenomenon of double sensation. When one hand touches the other, the body is experienced as both touching and touched. When right hand touches the left, it not only finds a touched object since the touch also evokes the left hand's sensing and subjective dimension. Here, Husserl points to the reflective dimension of the sense of touch, where the feeling of touching can be reversed and instead become the feeling of being touched (Husserl, 1989, p. 152).

The case of double sensation thus occupies a central role in phenomenology as a paradigmatic example of the body's double structure as both subject and object. The intertwining of touching and touched reflects the dual role of the body as both a perceptually available and public object, through its exterior and material dimension, and a sensing, moving, and acting subject that is lived and experienced from a first-person perspective. This duality marks two ways in which the body can appear. As an object, the body appears as a perceptually given thing through the medium of reflective attention. As a subject, it appears through an implicit and pre-reflective sense of presence that forms the basis for the subject's engagement in the world. The phenomenological distinction between the body as object and the body as subject invites an understanding of autism as a difference in the sensing and moving body rather than in a collection of physiological processes. As we shall see, sensorimotor differences in autism constitute a particular bodily perspective on the world. In the following, we will look at the phenomenological understanding of the body as a basis for understanding autism as a bodily difference in the relation to the world and others.

Movement, perception, and the world as pole of action

In the *Phenomenology of Perception*, Merleau-Ponty describes how consciousness is not originally an "I think that," but rather an "I can" (Merleau-Ponty, 2012, p. 139). Here, Merleau-Ponty describes the body's relation to its environment and emphasizes that the body is a way of relating to the world, and is therefore not "in" space, but rather "inhabits" space. The relationship between the body and its surroundings is not a question of one object's spatial relation to others but rather a question of the subject's situational and practical orientation toward the world (Merleau-Ponty, 2012). For example, when I reach for a glass of water, I am not aware of the different parts of my body through their position and spatial relation to each other. Instead, the body is experienced as a whole, whose parts are not connected in the same way as objects are, where one can meaningfully talk about something being "on top of," "next to," or "inside." Yet, I know exactly how to move my shoulder, upper body, elbow, and fingers to reach a glass of water without overturning it or spilling anything. This way of understanding the body as a basis for practical knowledge, immediately and pre-reflectively accessible to the subject in its engagement with the world, is captured by Merleau-Ponty's concept of the body schema (Merleau-Ponty, 2012, p. 142).

Rather than describing the body as a collection of body parts, muscles, and sensory organs, the body schema describes the body as an experienced whole, gathered in its dynamic movements toward the world. The body schema should thus be understood as a pre-reflectively experienced sensorimotor relation to the environment or a tacit background that forms the basis for the subject's fluid interaction with the world. With his analysis of the body schema, Merleau-Ponty introduces a concept of bodily and motor intentionality that involves both the subject's immediate experience of their own body in motion and the outside world as a space for action. The subject's intentional relation to the world must therefore be understood as a bodily "I can" through which the body actively "inhabits" space rather than simply being "in" it (Merleau-Ponty, 2012, pp. 139–140).

As the body's perspective is not stationary but inherently mobile, the body's movements are thus brought into focus. Through the body's movements, perception is an active process accompanied and presupposed by a pre-reflective and unthematized experience of the body in motion (Husserl, 1989; Merleau-Ponty, 2012). The relationship between perception and movement can be elucidated via Merleau-Ponty's analysis of synesthesia:

We see the rigidity and the fragility of the glass and, when it breaks with a crystal-clear sound, this sound is borne by the visible glass. We see the elasticity of steel, the ductility of molten steel, the hardness of the blade in a plane, and the softness of its shavings (Merleau-Ponty, 2012, p. 238).

Synesthesia is commonly understood as a process in which sensory input in one modality, such as hearing a piece of music, evokes a sensory experience through another modality, such as the visual experience of colors. In the quote above, Merleau-Ponty argues that synesthetic experiences are the norm rather than the exception since our everyday experience of objects is mediated by a form of cooperative sensation where we, in Merleau-Ponty's words, see the fragility of glass and the elasticity of steel. In his analysis of synesthesia, Merleau-Ponty takes issue with the so-called "objective thought," according to which sensory modalities are separate entities with their own objective properties that can be studied in isolation from each other. Instead, Merleau-Ponty claims that the senses are united in the living body through its movement (Merleau-Ponty, 2012, p. 243). Objects appear as sensory wholes based on the body's potential for action. If we return to the body schema, we saw how the body was gathered in a pre-reflectively experienced whole in its practical and motor orientation toward the world. Here, objects appear as what Merleau-Ponty describes as poles of action (Merleau-Ponty, 2012, p. 108). In this way, perception does not present the world as a network of objects "in themselves" but as possibilities for action.

Merleau-Ponty's analysis of the body schema, movement, and perception points to a relation between the sensory experience of the world and the body's possibilities for interaction with this world. In autism, this point highlights the equally important relation

between sensory differences such as hypo- and hypersensitivity and the experience of limited opportunities for interaction with the world and other people.

Intersubjectivity as intercorporeality

As previously described, the body constitutes a duality between a being perceiving subject and a perceived object. In other words, the body is always already "outside of" and "other to" itself, and according to Merleau-Ponty, it is an extension of this ambiguity that enables the experience of another person as a subject rather than an object.

He who "posits" the other man is a perceiving subject, the other person's body is a perceived thing, and the other person himself is "posited" as "perceiving." It is never a matter of anything but co-perception. I see that this man over there sees, as I touch my left hand while it is touching my right (Merleau-Ponty, 1964b, p. 170).

Just as I experience my hand as both touching and touched, I encounter the other person's body as both experiencing and experienced. Merleau-Ponty describes intersubjectivity as a process in which "everything happens as if the other person's intention inhabited my body, or as if my intentions inhabited his body" (Merleau-Ponty, 2012, p. 191). In this way, intersubjectivity is the formation of a bodily system with another human being. According to Dermot Moran, Merleau-Ponty's concept of intersubjectivity can be described through different forms of intercorporeal "blending" in various social practices such as kissing, speaking, singing, or playing together, where people interact immediately and fluently rather than through reflection and thinking (Moran, 2017). From a phenomenological perspective, we experience the other's subjectivity directly, immediately, and perceptually through our mutual bodily interaction. Through such concrete forms of intercorporeal blending, our feelings, perspectives, and intentions are immediately accessible to each other. On this background, we interact fluently and spontaneously through mutual bodily coordination.

In phenomenology, we find an interest in how we experience others as thinking, feeling, and acting subjects although what appears in the perception of another human being is the material "outside" of their body. In this context, one may ask what is revealed in the perception of another person's body. Here, Darian Meacham emphasizes that what we experience in the other's bodily expression is their particular way of being: their existential and bodily accent or tonality (Meacham, 2013). In other words, a particular style permeates bodily expressions. Thus, the body becomes pivotal to the way we recognize and interact with each other as subjects. As Merleau-Ponty emphasizes, intersubjectivity is not a cognitive achievement: "there is no constituting of a mind for a mind, but of a man for a man" (Merleau-Ponty, 1964b, p. 169). Here, the phenomenological understanding of intercorporeality enables a critical assessment of psychological approaches to social understanding assuming that cognitive systems, functions, and processes form the basis of human relationships. Furthermore, a phenomenological account rejects the un-

derstanding of autism as a disturbance in the development of cognitive functioning. Instead, it focuses on autism as a difference in bodily being-with-others that can be described as a particular tonality, mode, accent, or style rather than a local cognitive impairment.

Body and world as style: toward a phenomenological understanding of autism as diversity

To conclude this presentation of the phenomenological understanding of the body, I would like to highlight Merleau-Ponty's concept of "style" as a fundamental characteristic of both the body's and the world's expressivity. As I will argue, this concept invites consideration of autism as a stylistic difference in the relationship between body, world, and other people. Merleau-Ponty develops his concept of style in the context of a broader analysis of painting, but as Linda Singer and Meirav Almog argue, art is a paradigmatic example of style from which Merleau-Ponty draws general features of perception and expressivity (Almog, 2018; Singer, 1981). In Merleau-Ponty's phenomenology, style is an ontological concept that describes the unique appearance of perceptual objects as that which permeates and unites the object's different qualities and modes of appearance:

This piece of wood is neither an assemblage of colors and tactile givens, nor even their total Gestalt; rather, something like a woody essence emanates from it, these "sensible givens" modulate a certain theme or illustrate a certain style that wood is, and that establishes an horizon of sense around this piece of wood and around the perception I have of it (Merleau-Ponty, 2012, p. 476).

Commonly conceived, the concept of style covers a particular way of doing things often associated with art or fashion. However, we can also attribute style to other kinds of activities, such as perception and movement, by considering a style of how the world appears or how body expresses itself (Merleau-Ponty, 2012, p. 342). In addition, the body's ability to recognize, understand, and engage with style means that both objects and other people can appear recognizable and with a certain kind of predictability. For example, my knowledge of Jonathan Franzen's particular style of writing enables me to anticipate some basic features of his newly published novel. In the same way, the body is already attuned to what it will encounter in the world, and this bodily expectation is fundamental to the ability to engage in fluent interaction with the world and other people.

Joel Krueger suggests that autism can be described as a bodily style (Krueger, 2021). As Krueger points out, this implies not only an awareness of the particular ways autistic people sense the world and express themselves but also an acknowledgment that autistic "disturbances" reflect a stylistic dissonance between autistic and non-autistic ways of navigating the world. This stylistic dissonance, however, does not describe an external, behavioral dynamic between people. The concept of style indicates a sensitivity to the subjectivity of bodily expression and describes the subject's meaningful ways of entering into

dialogue with the outside world and with other people. Thus, it points to autistic disturbances as conflictual encounters between different ways of experiencing and relating to the world. The idea of autism as a particular bodily style expands the understanding of the social difficulties by drawing on a relational understanding of the friction that arises in the encounter between different ways of bodily experience and expression. In this way, bodily deviation is understood as a qualitative difference from, rather than a disturbance of, a bodily norm (Martiny, 2015).

Naturally, this view has implications for discussions of whether the autism diagnosis should be viewed as an expression of a psychiatric disorder or non-pathological diversity. Here, it is important to emphasize that a phenomenological approach to autism does not intend to neglect the suffering experienced by many autistic persons or ignore the significant part of the autism spectrum represented by people with severe learning difficulties and limited language development. The idea that an autistic bodily, perceptual, and cognitive style represents a meaningful way of relating to the outside world does not exclude the fact that it can simultaneously involve enormous pain.

Autism: From metacognitive impairment to bodily diversity

As described previously in this chapter, autism is diagnostically defined as a developmental disorder characterized by difficulties in social communication and interaction and restricted interests and repetitive behaviors (American Psychiatric Association, 2013; World Health Organization, 2018). Examples of the former include difficulties with emotional reciprocity, nonverbal communication, and building and maintaining social relationships, while the latter include stereotypical movements, rigid patterns of behavior, narrow interests, and sensory abnormalities. Since the 1990s, the concept autism has changed from primarily denoting a psychopathological condition to also constituting a social and cultural marker and an identity that more and more people on the autism spectrum are actively appropriating (Parsloe, 2015; Straus, 2013). The understanding of autism as something one "is" rather than something one "has" signals the inseparability of autism from the autistic person and thus reconfigures the autism category by opposing the psychiatric and neurocognitive discourse that permeates autism research (O'Neil, 2008; Sinclair, 1993). In his famous essay, autism activist Jim Sinclair described how autism "colors every experience, every sensation, perception, thought, emotion, and encounter, every aspect of existence" (Sinclair, 1993, p. 1). Autism can thus be described as a basic existential modality that permeates every experience of and dialogue with the outside world.

The embodied turn in autism research

Since the 1980s, the core of autism has primarily been described within a neurocognitive paradigm as an empathy deficit and a disturbance in the development of a theory of mind (Baron-Cohen et al., 1985). Social difficulties in autism are thus explained by an impairment in the metacognitive ability to think about others' thinking. Consequently, autistic

people are described as "blind" to other people's mental states (Baron-Cohen, 1995). Over the past decade, autism research has witnessed an increased focus on bodily processes that challenges the dominant neurocognitive paradigm represented by the theory of mind research (Torres & Donnellan, 2015).

This emerging reconceptualization of autism is motivated by a growing recognition of autistic persons' own descriptions of sensory and movement differences (Biklen et al., 2005; Chamak, 2008; Grandin, 2006; Mukhopadhyay, 2011; Robledo et al., 2012; Sacks, 1995; Williams, 1992). It has always been acknowledged that autistic persons use their bodies in ways that are often perceived as deviant, meaningless, or contextually inappropriate: from endless rocking back and forth, odd finger movements and hand positions, "stimming," or repetitive touching of various objects. "Stimming" is short for self-stimulatory behaviors, such as drumming with the fingers, blinking the eyes, spinning, twirling, rubbing the skin, etc. These activities are traditionally considered problem behaviors that need to be normalized or eliminated but, in recent years, research has focused on how they represent meaningful ways to stabilize chaotic sensory experience (Boldsen, 2018; Nolan & McBride, 2015). In their groundbreaking article, Martha Leary and David Hill suggested that such autistic movement patterns do not express a lack of interest in social and communicative interaction but rather underlying sensorimotor differences (Leary & Hill, 1996).

Leary and Hill's bodily understanding of autism is currently being supported by a growing body of empirical research that points to subtle but pervasive sensorimotor differences across the autism spectrum, including hypo- and hypersensitivity, difficulty with timing, coordination, and integration of movement and sensation, and differences in muscle tension and body posture (De Jaegher, 2013; Eigsti, 2013; Fournier et al., 2010). Today, studies show that sensorimotor differences are associated with the severity of autism (Hannant et al., 2016). Although differences in the way of sensing and moving have been reported continuously throughout the history of autism research, these bodily differences have been neglected in favor of understanding autism as a disorder of a disembodied cognitive system (De Jaegher, 2013; Robledo et al., 2012; Whyatt & Craig, 2013).

This movement in focus from cognitive structures and processes to the moving and sensing body represents an embodied turn in autism research that shifts the dominant focus from neurocognitive dysfunction to a particular form of embodiment. Furthermore, this turn has paved the way for emerging phenomenological orientations in autism research that address autistic embodiment as a subjective structure that shapes a particular way of experiencing and engaging socially and materially in the world (Boldsen, 2018, 2022; Fuchs, 2015; Gallagher, 2004; Zahavi, 2005).

Phenomenology, autism, and interbodily resonance

Contrary to the dominant cognitivist approach to autism, it is argued in the phenomenological literature that the core of autism should not be understood as an inability to reason about the mental states of others but a disturbance in the primary sense of bodily being-with-others (Fuchs, 2015, 2020). Autism is thus described as a loss of basic intercorporeal resonance, which can explain disturbances in social, communicative, and cognitive development. Rather than pointing to neurocognitive functions as primary, phenomenology instead identifies the core of autism in the pre-reflective and reciprocal bodily resonance that Merleau-Ponty described as intercorporeality. Dan Zahavi and Josef Parnas characterize autism as a diminishment of the immediate and pre-reflective understanding of social interaction (Zahavi, 2005; Zahavi & Parnas, 2003). This understanding can be described as an intuitive and flexible grasp of the subjective dimension of the other's bodily expression, which Peter Hobson also argues is disturbed in autism (Hobson, 2002).

A common feature of these phenomenological accounts is an understanding of the social difficulties that characterize the autism spectrum as rooted in a primary form of intercorporeality (Fuchs & De Jaegher, 2009; Gallagher, 2012). The phenomenological literature rests partly on empirical research demonstrating sensorimotor differences across the autism spectrum and partly on the phenomenological understanding of intersubjectivity developed by Husserl and Merleau-Ponty. From this perspective, social interaction and understanding are not reflectively mediated but bodily and intuitive processes in which the other's experiential life is immediately accessible through bodily expression and mutual interaction. According to Merleau-Ponty, another person's "mental states" are visual forms of behavior that are not hidden behind but rather exist in bodily expression (Merleau-Ponty, 1964a, pp. 52–53).

This bodily and perceptual basis of intersubjectivity - what Merleau-Ponty called the "esthesiological phase" of empathy (Merleau-Ponty, 1964b, p. 170) points to a phenomenological relation between the social difficulties experienced by autistic persons and the sensorimotor differences that characterize the autistic body. If it is the case that autistic persons sense and respond differently to other people's bodily expressions, then it is perhaps (in the words of Zahavi) "not so strange" that they also experience difficulty with social interaction (Zahavi, 2005, p. 218).

Bodily experiences of social interaction in autism

In the following, I will illustrate the above understanding of autism with empirical data deriving partly from an ongoing research project on social interaction in autism and partly from the autobiographical literature and qualitative research in the field. The research project studies autistic adolescents' and young adults' bodily experiences of social interaction. Empirically, the study is based on eighteen months of fieldwork in social groups for young people with autism and phenomenological interviews with the group participants.

The question of how autistic persons experience social situations and interactions has historically been neglected although autism has always been characterized as a disturbance in the relation to the social world (Asperger, 1991; Kanner, 1943; Verhoeff, 2013). Thus, there is a significant lack of knowledge concerning the experiential and subjective dimensions of autism. When asked about their experience of engaging in social interactions, autistic persons often emphasize the role of sensory differences. Hanna, a 17-year-old woman with autism, describes a Christmas Eve with her family as follows,

All the sounds, it is as if they become amplified. Everyone is talking, and then it is as if I just go blank. My ears are ringing, and I have trouble with where I should focus. I get very anxious, and I feel like I can't be in my own body. I don't know what to do with myself. It's hard to explain.

Hanna's description conveys a social world experienced sensorially as intrusive and overwhelming. Every voice appears on the same frequency, and, as Hanna describes, this experience is accompanied by a feeling of overload. 26-year-old Johanne describes how the soundscape (in the context of a family birthday) is experienced as a sea or blanket of sound that is experienced as threatening and invasive:

It is like a constant blanket of sound that just keeps coming at you until you are totally disoriented. [...] You can't really get away, and it's like a sea, that just... It's just everywhere, and you can't get away. [...] I don't know if the sounds in a way are more penetrating... As if they are reaching a deeper layer of the psyche, or that they don't just pass by.

Both Hanna and Johanne describe how this overwhelming sensory experience provokes a social withdrawal, which can almost be described as a bodily stagnation or break in the interaction with the outside world. Hanna explains how she tries to break the connection between herself and the outside world:

I try to push it away, but it's difficult because you hear sounds no matter how much you don't want to hear them. You can't just shut down your hearing. I get very quiet and shut within myself so I can focus better, and I try to close ... or to go into myself and just try to do whatever it takes to be in this situation, and yeah, to create a bubble around myself.

Here, Hanna's sensory experience gives rise to the typical form of social passivity and withdrawal recognized as one of the hallmarks of autistic social behavior. Her experience shows how the isolation from the outside world, which has characterized the concept of autism since Bleuler (1911/1950), is based on autistic perception. Johanne elaborates:

I can get so distant and almost isolated from what happens around me because I just shut down. [...] I withdraw more into myself, stopping any interactions with others... or just shut down. Then I notice the sounds less, but I also notice less of what is going on around me.

Hanna and Johannes' descriptions echo a substantial corpus of autobiographical literature and first-person accounts that describe the significance of sensory differences for autistic persons (Biklen et al., 2005; Cesaroni & Garber, 1991; Grandin, 2006; Hale & Hale, 1999; Mukhopadhyay, 2011; Robledo et al., 2012; Williams, 1992). The experience of mixed, confusing, intense, or intrusive sensory experiences is described as deeply disturbing and often associated with meltdowns in which the autistic person reacts with tantrums, withdrawal, self-harm, anxiety, or loss of bodily control. The above examples of autistic sensory experiences illustrate Merleau-Ponty's understanding of perception as a bodily presentation of the world. Perception of the world is defined by the bodily experience of meaning. As Hanna and Johanne's descriptions point to, the world presents itself with a sense that is difficult for the body to grasp and relate to. Merleau-Ponty emphasizes that perception is a process by which the world offers itself as a bodily space for action. Instead, we see in autism that the world presents itself as a chaotic and overwhelming space that is difficult to connect to. The autistic poet and author Tito Rajarshi Mukhopadhyay describes how these sensory experiences are accompanied by a kind of bodily break from the world.

It's like a total shutdown of the senses. It is as though the eyes stop seeing and the ears stop listening. What do I do then? I usually flap my hands to distract my senses to a kinesthetic feel, so that my senses may be recharged. [...] If that failed, I would seek out a more predictable situation where my senses would reconnect in a more meaningful way, so that I could connect my body once again with the environment (Mukhopadhyay, 2011, p. 140).

Mukhopadhyay describes an experience of breakdown of both the body and the world, where the immediate perceptual relation to the world is interrupted. At the same time, his description indicates how this relation between body and world can be restored through movement:

I would stand right below it, and rotate my body as fast as I could, wondering whether I too became as transparent as the fan. [...] I could gather my body parts while I rotated, so that I could feel my arms, legs, and fingers, in total control. [...] Once again, I felt sure of my movements and what I was supposed to see as I went around at that speed. Feeling sure calmed my senses (Mukhopadhyay, 2011, p. 59-60).

Mukhopadhyay's description of the body as something fragmented or as something that, in his own words, must be "gathered" reflects a break in the pre-reflectively experienced sensorimotor and dynamic directedness toward the world, which Merleau-Ponty describes as the body schema. As this concept emphasizes, the body is experienced as a whole, constituting a silent background for the subject's relation to the world. Mukhopadhyay's description testifies instead to an experience of the body as an assemblage of parts that must be collected. His experience furthermore highlights the body's potential to re-establish its relationship to the world through the basic sensation of itself in motion.

This point is crucial for understanding autistic movement patterns that may appear contextually inappropriate from an outside perspective. Although Mukhopadhyay's behavior may appear meaningless, alien, or, to some, even disturbing, from his own perspective, it is both productive and meaningful. A similar point is emphasized by Charles Hale in his description of how autistic persons' social behaviors may reflect a discrepancy between how the behavior looks from the outside and how it is intended and experienced from a first-person perspective:

I think my movement disorder is most apparent in the fact that I am unable to respond to someone or something, when my intelligence would tell me to respond in an appropriate manner. For instance, when I should be smiling, sometimes I know that I am not smiling but may be even frowning. This causes me a great deal of pain and makes me look as though I am not comprehending when, in fact, I am crying to respond in an appropriate manner (Hale & Hale, 1999, p. 32).

This experiential break in the attunement between body and world implies that bodily expression, in this case, a smile, constitutes a demanding and arduous task, which must be thought out in advance and performed with great care. Zahavi and Parnas touch on this point in their description of autism as a loss of immediacy in social experience and interaction (Zahavi & Parnas, 2003). Nina, a 17-year-old autistic woman, describes how this loss is experienced as a hyperreflective approach to social understanding - here in a situation where a stranger asks her for directions in public transport:

"Normal people," quote-unquote, would probably just answer her because they are totally used to automatically reading facial expressions, tone of voice, etc. But if I have to answer her, then I first have to figure out what her face is telling me, what her body posture is like, what is her tone of voice, what she is actually saying, what is the mood in the situation. Like, is she looking angry, is she angry, does she seem angry, or is she surprised, happy, etc.? All of these things have to be turned around in my head, and people expect an answer fairly fast, so if you don't answer within, say, 30 seconds, people will start to question whether you even heard them.

Nina's description emphasizes how the immediate and intuitive grasp of the other's facial expression, tone of voice, gestures, etc., is replaced by a reflectively driven process in which the other's intentions, feelings, and expectations are carefully deciphered. Nina's logical approach to social interaction, as she points out, results in a disturbance of interactional timing, which resonates with empirical research that points to a break in the bodily synchronicity and rhythm that are central to the flow of social interaction (Fuchs, 2020; Trevarthen & Daniel, 2005). Merleau-Ponty describes social understanding as an intuitive and bodily process by which the other person's feelings, perspectives, and intentions are immediately accessible. In comparison, social understanding is, for Nina, an analytical process that disconnects her from the interbodily resonance characteristic of social interaction.

The critical potential of phenomenology

The above analysis demonstrates the potential of phenomenology to illuminate the connection between autistic forms of embodiment and social interaction. For instance, we have seen how the world and other people appear sensorially overwhelming and threatening, which gives rise to the withdrawal and social passivity with which autistic persons are often described. Furthermore, we have seen how movement disorders mark a different relation to one's body, resulting in a weakened experience of the body as an immediate space for action. These two features of the autistic embodiment give rise to instability in the interbodily synchronicity and timing central to the experience of reciprocity and flow in social interaction. In other words, autistic differences in movement and perception alter the person's mode of bodily being-with-others.

The phenomenological understanding of the body is valuable by highlighting the immediate relationship between the body, the world, and others. When Merleau-Ponty describes the body as inhabiting space, he points to a relationship of intimacy and at-homeness, where the social and material world presents itself as immediately meaningful as a field of action possibilities. In this way, Merleau-Ponty describes intentionality as forming a system with the world. Herein lies the suggestion that such systems may function differently. As we have seen, autism is characterized by a different way of sensing and moving and, thus, a difference in the possibility of forming concrete bodily systems with the world and other people.

A phenomenological notion of the body enables an understanding of sensorimotor differences in autism as expressions of bodily diversity. By drawing on the critical resources of phenomenology, autism can be understood as more than an impaired cognitive system. This furthermore expands our understanding of autistic social difficulties. Rather than weakened social competencies on the part of the autistic person, a phenomenological approach highlights social interaction as a fundamentally relational and reciprocal process that can be disrupted by the encounter between different styles of experiencing and navigating the world.

In conclusion, I will point to the possible implications of this phenomenological understanding of autism for pedagogical and psychological work. Typically, autism interventions have been aimed at adapting autistic behaviors to neurotypical social norms, for example, through teaching "positive social behavior" (e.g., eye contact) and eliminating "problem behavior" (Simpson et al., 2005). Contrary to this view, a phenomenological approach to autism emphasizes the need to avoid strategies that reduce autistic difficulties to a problem of individual competence. Instead, a phenomenological approach promotes designing autism interventions with respect for autistic sensory and movement patterns. Here, existing therapeutic strategies can be developed and expanded that already exploit the bodily and social potential in, for example, dance and movement (Koch et al., 2014) or music and shared rhythm (Srinivasan & Bhat, 2013). In this context, reference can also be made to the chapters on music therapy and dance therapy in the book *Art, Body and Therapy* (Knight, 2022; Winther, 2022).

For such potentials to unfold, it is first and foremost necessary to develop a nuanced understanding of the subjective and experiential dimensions of autism to consolidate the scientific knowledge underlying autism practice with the experiences of autistic individuals themselves. By focusing on the body as the basis and continuous frame of reference for understanding autism, phenomenology thus exerts a critical potential in several ways. First, by challenging the historical tendency to neglect autistic experiences, and second, by developing a relational and embodied understanding of autism based on an idea of pathology as a fundamentally meaningful relationship to the world, oneself, and other people.

References

- Almog, M. (2018). Merleau-Ponty's Ontology of Style - Thought, Expression, and Art. *The Warwick Journal of Philosophy*, 29(1), 1–24.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders*. American Psychiatric Publishing.
- Asperger, H. (1991). "Autistic psychopathy" in childhood. In Uta. Frith (Ed.), *Autism and Asperger Syndrome* (pp. 37–92). Cambridge University Press.
- Baron-Cohen, S. (1995). *Mindblindness. An essay on autism and theory of mind*. The MIT Press.
- Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a "Theory of Mind"? *Cognition*, 21, 37–46.
- Biklen, D., Attfield, R., Bissonnette, L., Blackman, L., Burke, J., Frugone, A., Mukhopadhyay, T. R., & Rubin, S. (2005). *Autism and the Myth of the Person Alone*. NYU Press.
- Bleuler, E. (1950). *Dementia praecox or the group of schizophrenias*. International Universities Press.
- Boldsen, S. (2018). Toward a Phenomenological Account of Embodied Subjectivity in Autism. *Culture, Medicine and Psychiatry*, 42(4), 893–913.
- Boldsen, S. (2022b). Material encounters. A phenomenological account of social interaction in autism. *Philosophy, Psychiatry, & Psychology*, 29(3), 191–208.
- Botha, M., Hanlon, J., & Williams, G. L. (2021). Does Language Matter? Identity-First Versus Person-First Language Use in Autism Research: A Response to Vivanti. *Journal of Autism and Developmental Disorders*, 1–9.
- Brown, L. X. Z. (2011). Identity-First Language. *ASAN: Autistic Self-Advocacy Network*. <https://autisticadvocacy.org/about-asan/identity-first-language/>
- Cesaroni, L., & Garber, M. (1991). Exploring the experience of autism through firsthand accounts. *Journal of Autism and Developmental Disorders*, 21(3), 303–313.
- Chamak, B. (2008). Autism and social movements: French parents' associations and international autistic individuals' organisations. *Sociology of Health and Illness*, 30(1), 76–96.
- de Jaegher, H. (2013). Embodiment and sense-making in autism. *Frontiers in Integrative Neuroscience*, 7, 15.

- Donnellan, A. M., Hill, D. A., & Leary, M. R. (2013). Rethinking autism: implications of sensory and movement differences for understanding and support. *Frontiers in Integrative Neuroscience*, 6, 124.
- Doyon, M., & Wehrle, M. (2020). Body. In D. de Santis, B. C. Hopkins, & C. Majolino (eds.), *The Routledge Handbook of Phenomenology and Phenomenological Philosophy*. Routledge.
- Eigsti, I.-M. (2013). A Review of Embodiment in Autism Spectrum Disorders. *Frontiers in Psychology*, 4, 224.
- Fournier, K. A., Hass, C. J., Naik, S. K., Lodha, N., & Cauraugh, J. H. (2010). Motor coordination in autism spectrum disorders: A synthesis and meta-analysis. *Journal of Autism and Developmental Disorders*, 40(10), 1227–1240.
- Fuchs, T. (2013). Depression, Intercorporeality, and Interaffectivity. *Journal of Consciousness Studies*, 20(7–8), 219–238.
- Fuchs, T. (2015). Pathologies of Intersubjectivity in Autism and Schizophrenia. *Journal of Consciousness Studies*, 22(1), 191–214.
- Fuchs, T. (2020). Time, the Body, and the Other in Phenomenology and Psychopathology. In C. Tewes & G. Stanghellini (eds.), *Time and Body: Phenomenological and Psychopathological Approaches* (s. 12–40). Cambridge University Press.
- Fuchs, T., & de Jaegher, H. (2009). Enactive intersubjectivity: Participatory sense-making and mutual incorporation. *Phenomenology and the Cognitive Sciences*, 8(4), 465–486.
- Fuchs, T., & Schlimme, J. (2009). Embodiment and psychopathology: A phenomenological perspective. *Current Opinion in Psychiatry*, 22, 570–575.
- Gallagher, S. (2004). Understanding Interpersonal Problems in Autism: Interaction Theory as An Alternative to Theory of Mind. *Philosophy, Psychiatry, & Psychology*, 11, 199–217.
- Gallagher, S. (2012). In Defense of Phenomenological Approaches to Social Cognition: Interacting with the Critics. *Review of Philosophy and Psychology*, 3(2), 187–212.
- Grandin, Temple. (2006). Thinking in pictures: and other reports from my life with autism. Bloomsbury.
- Hale, M. J. Gray., & Hale, C. Martel. (1999). *I had no means to shout!* 1st Books.
- Hannant, P., Cassidy, S., Tavassoli, T., & Mann, F. (2016). Sensorimotor Difficulties Are Associated with the Severity of Autism Spectrum Conditions. *Frontiers in Integrative Neuroscience*, 10, 28.
- Hobson, Peter. (2002). *The cradle of thought: Exploring the origins of thinking*. Macmillan.
- Husserl, E. (1989). *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy - Second Book: Studies in the Phenomenology of Constitution*. Kluwer Academic Publishers.
- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217–250.
- Koch, S. C., Mehl, L., Sobanski, E., Sieber, M., & Fuchs, T. (2014). Fixing the mirrors: A feasibility study of the effects of dance movement therapy on young adults with autism spectrum disorder. *Autism*, 19(3), 338–350.

- Krueger, J. (2021). Finding (and losing) one's way: autism, social impairments, and the politics of space. *Phenomenology and Mind*, 21:20-33.
- Leary, M. R., & Hill, D. A. (1996). Moving on: autism and movement disturbance. *Mental Retardation*, 34, 39–53.
- Martiny, K. (2015). How to develop a phenomenological model of disability. *Medicine, Health Care and Philosophy*, 18(4).
- Meacham, D. (2013). What Goes Without Saying: Husserl's Concept of Style. *Research in Phenomenology*, 43(1), 3–26.
- Merleau-Ponty, M. (2012). *Phenomenology of Perception*. (D. Landes, Trans.). Oxon-New York: Routledge.
- Merleau-Ponty, M. (1964a). *Sense and non-sense*. Northwestern University Press.
- Merleau-Ponty, M. (1964b). *Signs*. Northwestern University Press.
- Milton, D. (2012). On the ontological status of autism: the 'double empathy problem.' *Disability & Society*, 27(6), 883–887.
- Milton, D., & Bracher, M. (2013). Autistics speak but are they heard? *Medical Sociology Online*, 61(2).
- Moran, D. (2017). Intercorporeality and Intersubjectivity: A Phenomenological Exploration of Embodiment. In C. Durt, T. Fuchs, & C. Tewes (eds.), *Embodiment, Enaction, and Culture: Investigating the Constitution of the Shared World*. MIT Press.
- Mukhopadhyay, T. Rajarshi. (2011). *How can I talk if my lips don't move: inside my autistic mind*. Arcade Publishing.
- Newen, A., de Bruin, L., & Gallagher, S. (2018). 4E Cognition. Historical Roots, Key Concepts, and Central Issues. In A. Newen, L. de Bruin, & S. Gallagher (eds.), *The Oxford Handbook of 4E Cognition*. Oxford University Press.
- Nilsson, M., Handest, P., Nylander, L., Pedersen, L., Carlsson, J., & Arnfred, S. (2019). Arguments for a Phenomenologically Informed Clinical Approach to Autism Spectrum Disorder. *Psychopathology*, 52(3), 153–160.
- Nolan, J., & McBride, M. (2015). Embodied Semiosis: Autistic 'Stimming' as Sensory Praxis. In P. P. Trifonas (ed.), *International Handbook of Semiotics* (pp. 1069–1078). Springer Netherlands.
- O'Neil, S. (2008). The meaning of autism: Beyond disorder. *Disability and Society*, 23(7), 787–799.
- Osler, L. (2021). Controlling the Noise: A Phenomenological Account of Anorexia Nervosa and the Threatening Body. *Philosophy, Psychiatry, and Psychology*, 28(1).
- Parsloe, S. M+. (2015). Discourses of Disability, Narratives of Community: Reclaiming an Autistic Identity Online. *Journal of Applied Communication Research*, 43(3), 336–356.
- Robertson, C. E., & Baron-Cohen, S. (2017). Sensory perception in autism. *Nature Reviews Neuroscience*, 18(11), 671–684.

- Robledo, J., Donnellan, A. M., & Strandt-Conroy, K. (2012). An exploration of sensory and movement differences from the perspective of individuals with autism. *Frontiers in Integrative Neuroscience*, 6, 107.
- Sacks, O. (1995). *An anthropologist on Mars: Seven paradoxical tales*. Vintage Books.
- Sass, L., & Parnas, J. (2003). Schizophrenia, consciousness, and the self. *Schizophrenia Bulletin*, 29(3), 427–444.
- Simpson, R., de Boer-Ott, S., Griswold, D., Myles, B., Byrd, S., Ganz, J., Cook, K., Otten, K., Ben-Arieh, J., Kline, S., & Adams, L. (2005). *Autism spectrum disorders: Interventions and treatments for children and youth*. Corwin Press.
- Sinclair, J. (1993). Don't Mourn for Us. *Our Voice*, 1(3).
- Singer, L. (1981). Merleau-Ponty on the concept of style. *Man and World*, 14(2).
- Srinivasan, S. M., & Bhat, A. N. (2013). A review of “music and movement” therapies for children with autism: embodied interventions for multisystem development. *Frontiers in Integrative Neuroscience*, 7, 22.
- Straus, J. N. (2013). Autism as culture. In L. J. Davis (ed.), *The Disability Studies Reader*. Routledge.
- Svenaesus, F. (2013). Anorexia Nervosa and the Body Uncanny: A Phenomenological Approach. *Philosophy, Psychiatry, and Psychology*, 20(1).
- Tewes, C., & Stanghellini, G. (2020). Introduction – Time and Body: Phenomenological and Psychopathological Approaches. In C. Tewes & G. Stanghellini (eds.), *Time and Body: Phenomenological and Psychopathological Approaches* (s. 1–11). Cambridge University Press.
- Torres, E., & Donnellan, A. (2015). Editorial for research topic “Autism: the movement perspective.” *Frontiers in Integrative Neuroscience*, 9, 12.
- Trevarthen, C., & Daniel, S. (2005). Disorganized rhythm and synchrony: Early signs of autism and Rett syndrome. *Brain and Development*, 27, 25–34.
- Verhoeff, B. (2013). Autism in flux: A history of the concept from Leo Kanner to DSM-5. *History of Psychiatry*, 24(4), 442–458.
- Vivanti, G. (2020). Ask the Editor: What is the Most Appropriate Way to Talk About Individuals with a Diagnosis of Autism? *Journal of Autism and Developmental Disorders*, 50(2), 691–693.
- Whyatt, C., & Craig, C. (2013). Sensory-motor problems in Autism. *Frontiers in Integrative Neuroscience*, 7, 51.
- Williams, D. (1992). *Nobody nowhere: the remarkable autobiography of an autistic girl*. Doubleday.
- World Health Organization. (2018). *International statistical classification of diseases and related health problems (11th Revision)*. World Health Organisation.
- Zahavi, D. (2005). *Subjectivity and Selfhood - Investigating the First Person Perspective*. MIT Press.
- Zahavi, D., & Parnas, J. (2003). Conceptual Problems in Infantile Autism Research: Why Cognitive Science Needs Phenomenology. *Journal of Consciousness Studies*, 10(9–10), 53–71.

Chapter 4

Methodology

A phenomenological approach to qualitative science

In this chapter, I introduce the methodological commitments of this study, its research design, methods of data collection and analysis and discuss quality criteria, ethical implications, and how they have been handled during the research process. Finally, I present an article discussing the potentials and challenges of empirically exploring social experience and interaction from a phenomenological perspective (Boldsen, 2021).

“To the things themselves”

With his classical phenomenological maxim, “back to the things themselves” (Husserl, 2001), Edmund Husserl envisioned phenomenology as the study of things in their experiential givenness. Returning to the things themselves means returning to phenomena as they are given and present themselves through different modalities. Phenomenological methodology thus concerns an adherence to the phenomenon in focus, and research methods should adapt to fit the phenomenon and allow it to present itself in its fullest sense (Boldsen, 2021). Building on a phenomenological understanding of intersubjectivity, social interaction can be described as an experiential, interbodily, and materially situated phenomenon. Consequently, choices concerning the overall research design, data collection methods, and analytical strategy aimed to create the best possible conditions for social interaction to express itself as such. Methods are thus considered various media or lenses through which autistic social interactions can be refracted. This point has recently been emphasized in the phenomenological literature on methodology from different standpoints, e.g., through the idea of a “custom fit” between the phenomenon and the research design (Englander & Morley, 2021) and the idea that qualitative research should be designed according to the phenomenon in focus (Ravn, 2021).

As I argue in this chapter, studying autistic intersubjectivity requires a methodological framework that facilitates attention not only to the subjective experience of autistic persons participating in social interactions but also to how social experiences emerge in dynamic entanglement between bodies, things, and spaces. This study is therefore designed to pursue descriptions of (1) the subjective, experiential, and sensory dimensions of social interaction and (2) its interbodily, material, and contextual features.

To bring out these features of autistic intersubjectivity, I draw from different approaches to data collection and analysis. The research design is explorative and focuses on letting autistic experiences and practices guide the direction of research. The data collection process aims to gather concrete descriptions of autistic experiences and practices of social interaction through qualitative interviews and ethnographic fieldwork. In my approach to interviewing, I draw both on a general phenomenological approach to qualitative interviews focusing on the intersubjective dynamics between interviewer and interviewee (Englander, 2020) and on specific interview techniques aimed at generating

descriptions of pre-reflective experience (Petitmengin, 2006). In my approach to fieldwork, I draw both on Susanne Ravn's approach to participant observation to explore how experiences and practices are contextually embedded (Ravn, 2021) and Sarah Pink's emphasis on participant observation as an embodied and sensory process (Pink, 2009). To understand the lived experiences described in the data, I am inspired by Amedeo Giorgi's descriptive approach to phenomenological analysis (Giorgi, 2009), and to explore the phenomenological structures underlying these experiences, I use phenomenological concepts and analyses of intersubjectivity and its relation to embodiment and materiality. In the following, I will describe how I aim to create ideal conditions for the phenomenon of autistic intersubjectivity to come into view through these methods of data collection and analysis and how they contribute to a coherent phenomenological methodology.

Between philosophy and psychology: A two-tier model of phenomenological research

Phenomenological psychology is a human scientific branch of psychology that aims to study the fundamental structures of psychological phenomena by describing how they are experienced from a first-person perspective. As Magnus Englander and James Morley point out, "the practice of phenomenological psychology requires a kind of 'dual citizenship' in both psychology and phenomenological philosophy" (2021, p. 26).⁸ To negotiate this relationship between phenomenology as a philosophical practice and psychology as an empirical field, I design this study following Simon Høffding and Kristian Martiny's model of combining phenomenology with qualitative science as a process in two tiers (Høffding & Martiny, 2016).

Whereas the first tier aims to gather qualitative data on research participants' lived experiences, the second tier aims to analyze such data phenomenologically to elucidate

⁸ No agreement in the field has been reached on how phenomenological philosophy should be applied to psychology. Whereas scholars from within the field of psychology suggest applying philosophical phenomenology as a method for analyzing empirical data (Ashworth, 2003; Giorgi, 2009; Smith, 2009; van Manen, 1990), philosophical scholars have focused on how phenomenological theoretical concepts and analyses may inform the design of empirical studies (Gallagher & Sørensen, 2006; Zahavi, 2019). Indeed, the relationship between phenomenological philosophy and qualitative research has recently been the topic of much dispute. Notably, the application of the phenomenological method in psychology has been met with critique (Dahlberg & Dahlberg, 2020). Zahavi (2019) and Zahavi and Martiny (2019) criticize qualitative researchers for trivializing philosophical concepts such as the epoché and the natural attitude and treating Husserlian phenomenology as a qualitative research manual rather than a transcendental philosophical enterprise. In opposition to the broad mainstream of phenomenological psychology, which builds on an application of Husserlian methodology (Giorgi, 2009), Zahavi argues that phenomenology is best applied as a set of philosophical assumptions with the potential of enriching, nuancing, and challenging the empirical sciences (Zahavi & Loidolt, 2021).

invariant structures of experience. The two tiers are thus connected to different disciplinary commitments, the first qualitative in nature and the second phenomenological. Concerning the focus of this study, these two commitments translate to two separate but closely intertwined aims: (1) To understand the way autistic persons experience and practice social interaction and engagement with others, and (2) to arrive at the possible structures underlying autistic ways of relating and connecting to other people.

The first aim of describing and understanding research participants' lived experiences implies approaching experience on its own terms, i.e., as it unfolds in everyday life. To this end, qualitative research is a necessary tool (Ravn, 2021). According to the generic definition offered by Norman Denzin and Yvonna Lincoln (2018, p. 18), qualitative research is a situated activity of making sense of phenomena in terms of their meaning for experiencing subjects and, because of the researcher's participation in the generation of data, it is crucially a reflexive activity. However, I think a phenomenological approach to qualitative research imposes some additional commitments. Phenomenological approaches differ from other approaches to qualitative research in an essential way by committing to a phenomenological understanding of experience and subjectivity and being interested in describing experience rather than, for example, discursive formations, subject positions, narratives, etc. (Wertz et al., 2011). In my view, this means that the first tier is not *only* qualitative in scope, but also already shaped by the phenomenological philosophy and its understanding of the world.

The second aim relates to the oft-cited words of Shaun Gallagher and Dan Zahavi, who describe phenomenology as “an account of subjective experience” rather than “a subjective account of experience” (Gallagher & Zahavi, 2008, p. 19). One way to explain the meaning of this statement is that, in the context of this study, the goal is not to describe the lived experiences of individual participants but to arrive at a description of the general phenomenological structures underlying autistic social experiences. However, to achieve this goal, it is necessary to study individual experiences closely on an empirical and personal level. Thus, the two ambitions juxtaposed by Gallagher and Zahavi are mutually dependent and implicated in one another. This movement from empirical descriptions of individual experiences and practices to a general description of phenomenological structures is an analytic task that draws on various resources, both phenomenological description and theoretical analysis.

Anthony Fernandez outlines the subject matter of phenomenology in three layers: existentials, modes, and prejudices (Fernandez, 2017). Autistic social experiences and practices represent particular *modes* of intersubjectivity or ways the social world can be disclosed and approached. This study is primarily concerned with describing an autistic mode of intersubjectivity but understanding this mode requires an understanding of the existential of which it is a modification. If we follow Fernandez', the study of modes enables “more general insights regarding the structure of the existential to which the mode belongs” (Fernandez, 2017, p. 3555). My approach to studying autism is thus based on an understanding of philosophical analyses of intersubjectivity to enable a mutually

enlightening dialogue between autistic modes of experiencing the world and intersubjectivity as conceived within phenomenology.

Research design

An exploratory approach

This study employs an exploratory and qualitative research design, where the research process shapes the research problem and the scientific inquiry crystallizes into more clearly defined research questions as the research progresses (Hammersley & Atkinson, 2007). What guided my choice of data collection methods, analytic strategy, and considerations concerning quality was the aim of generating rich, detailed, and contextually sensitive descriptions of autistic practices and experiences of social interaction. This study combines ethnographic fieldwork with qualitative interviews within a phenomenological framework to explore autistic styles of social interaction and their experiential, bodily, and material dimensions. Fieldwork was conducted in social groups for autistic adolescents and young adults, and interviews were conducted with a selection of group participants. In combining fieldwork and participant observation with qualitative interviews, I approach social interaction processes in autism as embodied and materially situated modes of being and doing together and as a subjective and experiential phenomenon of encountering other people.

The exploratory approach of this study defined the first stages of data collection by a very general and open interest in autistic approaches to being together with others. On a practical level, this means that the specific focus of the study was defined during the process of fieldwork. The first half to whole year of participant observation was spent learning to participate and navigate the activities, practices, traditions, and structures of the social groups, guided by the very open-ended questions of *how* the group participants practice being together. Through this exploratory phase, I developed a more clearly defined focus on the sensory, interbodily, and material dimensions of autistic approaches to social interaction, which was refined and pursued systematically in the later stages of fieldwork and through qualitative interviews.

The empirical setting

Fieldwork spanned over eighteen months, from October 2017 to June 2019, and included participant observation in two social groups for autistic adolescents and young adults organized and hosted by a Danish social-economic business, here termed Autism Agency Denmark for anonymity. In a Danish societal context, a social-economic business is a privately held company that creates profit on regular market conditions to promote a

social or societal cause. Autism Agency Denmark is based in a mid-sized suburban Danish city and works with persons with neurodevelopmental disorders with a particular focus on autism. The Autism Agency provides services for both municipalities, professionals, parents, and autistic persons. Their activities include research, counseling and treatment, screening and diagnosis, specialized education, and mentoring in relation to work and school life. Fieldwork was conducted in their department for social groups that includes various leisure- and activity-based groups aimed at different target groups, such as autistic teenagers, women, and adults.

The social groups offered by the Autism Agency have a double ambition. First, they aim to facilitate friendships and a social network for young autistic people, improving quality of life, and contributing to personal development. Second, they provide a context for social competence training and improving everyday life skills. The group participants are all diagnosed with autism or Asperger's Disorder, and many have additional psychiatric problems such as depression, anxiety, ADHD/ADD, and OCD. Although some participants live independently and manage school or work on regular terms, they have highly varying everyday life functioning, and most live with a high degree of support from family and the municipal system. The social groups are organized and run by pedagogical staff with experience working with autistic persons, for example, in a special school context. They organize the activities of the social groups on a day-to-day basis and over the year, host group meetings, and keep track of how the participants are doing in the context of the social group and in their everyday lives.

Data collection took place in two of the Autism Agency's social groups: one for autistic women aged 18-27 (from here on, "the women's group") and one mixed-gender group for autistic young people aged 15-21 (from here on, "the youth group"). Each of the groups met once every second week from late afternoon to evening (usually 16.30-21.00), and most group meetings took place in the Autism Agency's buildings that include numerous social and activity-specific spaces such as a café, kitchen, board game area, gaming room, a room for playing music instruments, creative workshop, sofa areas, ping pong and other sports activities, offices, meeting rooms, etc. The regular group meetings were occasionally substituted with weekend day trips, such as museum trips, restaurant visits, a movie at the theatre, or a sleepover. However, the Autism Agency's buildings provided the base and primary setting for this study's fieldwork.

In total, observations counted roughly 350 hours. Qualitative interviews were conducted from February 2019 to May 2019 with a total of eleven group participants, seven from the youth group and four from the women's group, one interview per participant. The length of the interviews ranged from fifty to ninety minutes.

Participant selection and recruitment

The setting for this study's data collection was chosen because the social groups offered by Autism Agency Denmark, compared with similar services provided within the municipal system, are highly specialized and focused on accommodating and supporting autistic needs in the group setting. This made the Autism Agency's social groups an interesting and well-suited case for studying autistic experiences and practices of social interaction.

The participant selection and recruitment process was done in close collaboration with the Autism Agency's social group department's pedagogical staff. Specific groups were selected out of a larger pool of groups with various constructions (e.g., autistic girls, teenagers, women, or adults) from two criteria. First, their estimated openness to researcher participation. For many group participants, the social groups constitute their primary, and sometimes only, social network in a life affected by social difficulties and experiences of ostracization. This made the groups a highly vulnerable context to enter, and they were therefore selected with consideration for their function as autistic social spaces. Second, variation in the group's social "form" with priority of groups that differed in social practice and activities. The youth group was characterized by a more fast-paced social dynamic with more chatting, joking, and "running around," and the women's group was characterized by a more subdued atmosphere and concentrated activities such as doing creative projects, talking about joint issues of navigating adult autistic life, etc. Pursuing such variation enabled a better consideration of the nuances and distinctions in autistic approaches to social interaction and how specific settings and pedagogical practices influence such approaches.

Recruiting group participants for qualitative interviews was based on two criteria. First, the relative psychological and emotional stability of the research participant at the time of recruitment and at the time of the interview itself. This criterion aimed to avoid exacerbating potential psychological and emotional stress or vulnerabilities through interviewing or merely being asked to participate. This was evaluated both through my background knowledge of group participants achieved through fieldwork and in collaboration with the pedagogical staff who were often aware of personal issues participants did not bring up during group meetings. Second, a more flexible criterion was applied, namely the participant's relative openness to others and interest in self-reflection. Due to the explorative and reflective nature of qualitative interviews, estimated success of such interviews was evaluated considering the participants' interest in exploring their own experiences. To accommodate the variance and differences between group participants during data collection, I intentionally did not set the participants' ability to reflect on and verbalize their own experiences as a criterion for participation in qualitative interviews. However, the two criteria still produced a subgroup of group participants out of which many have Asperger's Disorder and that many would describe with the label "high-functioning" (see overview below).

Potential interview participants were approached during group meetings and asked about participation in an interview during the following group meeting, allowing two weeks to consider their decision and potentially consult with family, friends, or other persons of trust. Due to many participants' unstable group attendance, I always asked two potential interview participants at the time to make sure at least one of them would be present at the following group meeting where the interview was scheduled. This process yielded interviews with a total of eleven group participants, seven from the youth group (YG) and four from the women's group (WG):

Group	Pseudonym	Age	Primary diagnosis
YG	Nina	17	Asperger's Disorder
YG	Marie	17	Asperger's Disorder
YG	Mads	21	Infantile Autism
YG	Line	17	Asperger's Disorder
YG	Helene	17	Asperger's Disorder
YG	Anders	20	Infantile Autism
YG	Hanna	17	Asperger's Disorder
WG	Johanne	26	Asperger's Disorder
WG	Ina	23	Asperger's Disorder
WG	Eva	24	Infantile Autism
WG	Elli	18	Asperger's Disorder

Data collection

Fieldwork

Access to the autism groups was provided by Autism Agency Denmark, initially through its research department, then through the department for social groups, and finally, it was facilitated on a concrete level by the pedagogical personnel responsible for the group's regular meetings.

I was introduced to the autism groups as a psychology student doing a research project on autistic experiences of "being social," hoping to learn something from autistic persons' own perspectives on being autistic. My status as a researcher was framed openly and explicitly to all group participants, aiming toward as overt a position as possible. With this strategy, I hoped to position myself as an "ally," defined in the autism and disability rights community as "a person with privilege on a particular axis who makes a conscious choice to work against oppression on that axis" (Kassiane S., 2012). I tried to define my position in the autism groups by curiosity and humility toward autistic experiences and practices to reconcile my explicit status as a researcher with a non-autistic participant perspective. This position was established and maintained through how I presented my

study to the autism groups and during the everyday context of fieldwork. When the employees in the autism groups sometimes positioned me as a psychologist and therefore a resource on how to interpret the participants' behavioral and emotional problems, I tried to refrain from making such evaluations and directed attention toward how they understood and handled the issues in focus. When group participants sometimes reacted to me in a guarded and aloof manner, I did not pursue further interaction and tried to respect their space as best I could. However, when the opportunity was there, I showed interest in their perspectives on life as a young autistic person and emphasized that I was not interested in evaluating or assessing them but in their views and experiences.

This study's approach to participant observation is inspired by sensory ethnography (Pink, 2009). From this perspective, participant observation is considered both an emplaced and an embodied practice (Pink, 2009, p. 34). Learning about autistic social experiences and practices was thus a process of "feeling into" the concrete material and sensory dimensions of these experiences and practices rather than primarily an intellectual process relying solely on a verbal transfer of knowledge. Moreover, during fieldwork, observations became increasingly focused on exploring the sensory aspects of social interaction. Fieldwork thus became a sensory practice in more than one sense: First, by exploiting my own embodied experience as a source of knowledge in the field, and second, by attending to how the participants' social practices related to the senses.

In the autism groups, I participated in a range of scheduled and spontaneous social activities, such as cooking, playing board games, creative activities, watching movies, conversations (including organized conversation groups around pre-determined themes), and sports activities. Usually, I would stay for a while after group participants had gone home to help the employees clean up. This enabled informal conversations about the pedagogical practices in the groups, challenges encountered, and an understanding of implicit factors in the autism groups, such as the influence of municipal demands on pedagogical practice.

Regular group nights followed the same pre-organized structure from week to week that scheduled and located various social activities within a strict time frame and specific location in different areas of the Autism Agency's buildings. Except dinner, organized conversation groups with a more explicit pedagogical purpose, and the initial greeting and closing goodbye, group participants were spread out at the Autism Agency most of the evening doing different activities in smaller groups. During the process of fieldwork, I have pursued different strategies for gaining an understanding of the social practices characterizing the autism groups:

1. I have focused on *social spaces* by residing in specific settings during the group meeting (e.g., the board game area or the creative workshop). This invited consideration of the particular social possibilities of physical spaces and material environments through observations of how different forms of social interactions and interbodily connectedness flourished in different arenas.

2. I have focused on *individual perspectives* by focusing primarily on one participant during the group meeting. This allowed for considering behavioral differences across different contexts by observing how one person may interact very differently with the environment and other people from one context to another.

Observations generally focused on characterizing the style of social interactions between group participants, emphasizing the role of the body and the material environment in establishing and maintaining social engagement. Preparation of these observations included reflection on how to understand social interaction as an empirical construct accessible through observation and participation by considering how social dynamics can be heard, seen, sensed, and felt from the perspective of a participant observer. Following these reflections, observations targeted how participants gesture and move toward each other (e.g., through gestures, whole body movement, postures, facial expressions), interbodily dynamics (e.g., how body movements respond to each other, align or misalign, processes of coordination, rhythm, and timing), how things and artifacts are used in interactions (e.g., pens, paper, board games, cups, etc.), and the relation between interactions and their material environment.

A crucial and indispensable part of participant observation is second-person engagement between researcher and participants (Hammersley & Atkinson, 2007) and the crucial role played by the researcher's experience and subjectivity in this regard (Boldsen, 2021). Because participant observation aims to understand a phenomenon from the participants' perspectives (Bryman, 2012), getting to know and understand the group participants have formed a fundamental part of fieldwork to validate emerging understandings of autistic social experiences and practices. Thus, my own embodied point of view was an important tool for gaining an intuitive understanding and familiarity with the group participants' concrete perspectives on autism and social interaction. This contextualized and intuitive understanding achieved through fieldwork was crucial for developing situationally sensitive observations of social interaction and facilitating good descriptions of lived experience during interviews.

Qualitative interviews

Fieldwork in the autism groups played a key role in enabling the qualitative interviews that formed the second part of this study's data collection. First, in terms of access. Most participants in the autism groups tended to distrust psychologists and the possibility of any form of evaluation, and, in addition, face-to-face interactions are often felt as overwhelming and unsafe for autistic persons, and it can take time to gain a sense of comfort with others. Participant observation eased this process of building the interpersonal trust necessary for conducting interviews, both in terms of recruitment, smoother interaction during interviews, and, most importantly, in terms of the interviewees' experience of research participation. Second, in terms of developing and refining the focus of interviews.

My emerging familiarity with the group participants' experiences and understandings of what autism means in social encounters helped define relevant topics to address during interviews. In addition, familiarity with autism-related jargon and various nerdy practices (e.g., board games, manga, internet communities, neurodiversity) helped me participate productively in recalling and describing various social experiences.

Keeping with a phenomenologically informed approach to qualitative interviews (Englander, 2020; Höffding & Martiny, 2016; Petitmengin, 2006), the purpose of the interviews was to elicit detailed descriptions of group participants' first-person experience of participating in social interactions. In addition to this phenomenological approach to qualitative interviews, great care was taken to produce an autism-friendly interview situation. Interviews were conducted during group nights to accommodate research participants' priorities, need for stability, sense of security, and minimal intervention in everyday life routines. Interviewees were invited to engage in whatever activity they preferred, such as drawing, fidgeting, and listening to music during the interview to increase the sense of comfort in a potentially stressful situation. To avoid overreliance on eye contact and face-to-face interaction, I positioned myself at a ninety-degree angle from the interviewee and encouraged several breaks during the interview. Moreover, I tried to adjust the communicative dynamics during the interview to accommodate the interviewee's particular style of interaction. For example, some interviewees had significantly longer response times than what might be expected, which required lengthy periods of silence to make room for the interviewee to form a response. Others answered only briefly, which required many follow-up questions and a more active interviewing technique. These adjustments were sometimes considered before the interview based on prior knowledge of the interviewee's particular interactional style and sometimes in the moment based on a sensitivity to social dynamics during the interview. To illustrate the difference between how different interviews were conducted, see appendix (3). Finally, to ensure that interviewees had a chance to talk about potentially problematic issues and emotions coming up during the interview, a pedagogical employee with whom interviewees felt safe was made available for debriefing after the interviewee if needed.

Participant observation and qualitative interviews constituted dialectical data collection processes as observations helped develop relevant themes to pursue during interviews. Conversely, understandings emerging from interviews helped sharpen the focus of observations and introduced new themes. Building on insights obtained through one year of fieldwork prior to the interview study, I developed a semi-structured interview guide focusing on broad questions related to autism and social engagement, such as identity, community, and the qualitative differences between interaction in autistic communities and neurotypical contexts. As the interviews progressed, the guide was refined to focus more directly on the experience of concrete instances of social interaction. Facilitating detailed and rich descriptions requires time and effort from both interviewer and

interviewee. As a supplement to the broad and open-ended questions typical of qualitative interview techniques, this was accommodated by inviting the interviewee to describe only few specific social experiences clearly delineated in time and space.

Interviews addressed social situations that was experienced as difficult and ones that were experienced as easier or smoother. To facilitate descriptions of both positive and negative aspects of social experience, the interview guide and technique were developed and refined as the interview study progressed (see appendix (2)). Yet, providing good descriptions of positive social interactions was difficult and remained challenging throughout the study. One possible explanation is that it is generally easier to describe situations with tension, friction, and discomfort than smooth, easy, or unproblematic ones since the former typically stand out and the latter go unnoticed. While I do not see this as a misrepresentation, one consequence is that the difficult and problematic aspects of social interaction in autism have received more space in the data. To address this potential imbalance, the dialogue between field notes and interview data was crucial since observations provided a more comprehensive picture that addressed social situations and interactions that were smoother and less problematic.

Experiential features of social interaction were pursued by focusing interview questions on pre-reflective, sensory, and affective dimensions of social encounters. After preliminary introductions and small talk, interviews began by asking the interviewee to describe a situation in which they had experienced difficulty with social interaction. This was useful for two reasons. First, describing a situation in which the relevant experience has occurred helps preserve the concrete context of the experience in focus (Boldsen, 2021; Englander, 2020). Second, it helps the interviewee recall the experience in its sensory, affective, and bodily fullness through its connection to a concrete spatiotemporal context (Petitmengin, 2006).

To focus more systematically on structural aspects of social experiences, I drew inspiration from the interview technique of micro-phenomenology (Petitmengin, 2006) in two ways. First, I alternated between inviting the interviewee to deepen their description of diachronic (e.g., what happened next?) and synchronic elements (e.g., “what do you hear/see around you?”). Second, I focused questions on the sensory and affective aspects of social experience by directing questions toward how social experience is mediated through different sensory modalities and bodily feelings. This technique aims to elicit a high degree of detail and fullness in the interviewee’s experiential descriptions and to direct the interviewee’s attention to pre-reflective dimensions of experience. Despite this focused effort to direct the interviewee’s attention toward certain aspects of experience, great care was taken to formulate questions exploratorily as invitations to describe experiences further rather than introducing interpretations or concluding the understanding of the interviewee’s experience.

Data representation

Observational data was recorded in two stages. First, in the field as jotted notes, summarizing who, what, where, and when along with fragments of conversation to jog the memory of the situation at a later stage. Second, after each evening or day in the field, jotted notes were transformed into full field notes, describing in as much detail as possible the interaction in focus, its bodily and material features, temporal and spatial context, and the affective and sensory dimensions of the situation in which it took place. The process of recording observational data varied throughout different stages of fieldwork according to the process of focusing attention on specific aspects of social interaction in the autism groups. Some notes remained brief and in the form of keywords, others were recorded with a high degree of detail to capture the mood and feeling of the situation, and yet others were recorded in a more structured way to delineate and specify the bodily and material aspects of interaction processes and dynamics (see appendix (4) for examples). On average, two to five separate field notes were recorded per group meeting. In total, field notes counted 121 computer-typed single-spaced pages in 11-point font size.

Qualitative interviews were audio-recorded, and files were transferred to and stored on an encrypted server. Audio recordings were subsequently transcribed verbatim along with short and long pauses, laughing, false starts, fillers, and unclear speech (see appendix (3) for examples). As widely recommended in qualitative interview practices, I chose to transcribe all interviews myself to enable continuous evaluation of the interview technique and to retain both social and emotional aspects of the interview situation that were useful in analytical processes (Kvale, 2013). In total, interview transcripts counted 192 single-spaced pages in 11-point font size.

Analytic strategy

Qualitative interviewing and particularly prolonged fieldwork are always already analytic processes given the reflexive and exploratory nature of qualitative research, where the research focus is refined and crystallized during the research process. However, the formal part of this study's data analysis was conducted in two separable but closely interrelated stages. As described previously, this study commits to a qualitative and phenomenological approach to empirical research. These two commitments translate into two stages of analysis that, although they have different aims and draw on different resources, contribute to a coherent phenomenological psychological understanding of social experience in autism. The first is defined by an effort to understand the lived experiences and practices described in the data, and the second aims to describe the underlying phenomenological structures supporting these experiences (Høffding & Martiny, 2016; Ravn, 2021). In practice, these two analytic stages constitute an iterative process of moving between different levels of explication, from part to whole and back and forth between

analysis of participants' experiences and the phenomenological structures supporting them.

While this model of analysis is different from the approach typically employed in phenomenological psychology, I have retained an important tool advocated by Giorgi, namely the emphasis on the role of description in phenomenological analysis. As is emphasized in phenomenological psychology, understanding how a phenomenon presents itself in experience is a descriptive enterprise (Giorgi, 2012). According to Giorgi, the researcher describes the experiences recounted in the data material as they are given to the research participant and without resort to theories, understandings, explanations, prejudices, or other resources external to the experiences themselves. In my view, any attempt to analyze the invariant and structural features of a phenomenon must rely on thorough and sensitive descriptions of the experiences recounted by research participants. Thus, description is an approach that runs through both stages of analysis, as presented below.

The first stage of analysis was characterized by the effort to understand the lived experiences and practices expressed in the data on their own premises. As recommended in phenomenological psychology (Giorgi, 2009), this process was initiated by exploratorily reading and re-reading field notes and interview transcripts to gain familiarity with the material. Through this initial immersion, I began to describe central aspects of the social experiences in the data. Based on those descriptions, codes were developed to organize data according to central aspects of participants' lived experiences of social interactions as they were expressed from the participants' own perspectives. The first stage of analysis was thus characterized by striving toward an emic perspective on participants' experiences and practices (Hammersley & Atkinson, 2007). Examples of codes applied during this analytic process include "being seen," "leading or being led," and "being part of a group." Developing codes at this analytic stage included two rounds, where the first was defined by exploratory reading and understanding and the second by the effort to achieve internal consistency between codes and participants' descriptions of experience through refining codes re-organizing material through re-coding.

Before proceeding to the next step of the analysis, I developed thorough and detailed descriptions of the coded themes based on the empirical material to understand the general features of different aspects of social experience in autism. First, I gathered all the material coded under a given theme. From that material, I described the general experiential features expressed across the various participants' descriptions. This strategy was employed as an intermediary step to ease the transition from describing individual experiences to describing the phenomenon's structural components.

The second stage of analysis was characterized by the effort to describe underlying phenomenological structures supporting the participants' lived experiences and practices (Høffding & Martiny, 2016; Ravn, 2021). Two processes defined this stage. First, the method of explication or elucidation (Englander & Morley, 2021), and second, the application of phenomenological resources and concepts (Ravn, 2021). According to

Englander and Morley (2021, p. 25), explication refers to a process of bringing out latent or tacit meanings in the data that are not always explicitly verbalized by the research participant. For example, a felt discomfort during eye contact was described by most research participants and was associated with heightened self-consciousness, insecurity, and self-evaluation. During analysis, structural components of these experiences were explicated, such as processes of self-alienation and hyperreflexivity, which, although not directly verbalized by participants, constituted implicit and pre-thematic aspects of the described experiences. The process of explication thus involves a dimension of interpretation, which, although directed at explicating lived dimensions of participants' experiences and practices, constitutes an etic perspective because it draws on concepts originating outside of the participants' descriptions (Hammersley & Atkinson, 2007). The codes developed at this stage were inspired by phenomenological analyses and theoretical concepts that described structural components of the experiences and practices in focus (Ravn, 2021), e.g., "materiality and normativity," "reciprocity," and "foreground and background in sensory experience." Thus, analysis at this stage aimed to describe invariant aspects of social experience and practice across the data, thus engaging with processes of generalization as an analytic practice (Roald et al., 2021).

Quality criteria and integrity of the study

In qualitative research, quality criteria are typically described in the context of a study's trustworthiness and transparency and concern the appropriateness and consistency of the chosen methods and the study's openness to intersubjective evaluation (Denzin & Lincoln, 2018; Ravn, 2021). In this study, a phenomenological commitment has pervaded the theoretical and methodological approach to social interaction in autism. The methodological integrity of this study thus concerns how social experience in autism has consistently been understood and explored within a phenomenological framework and how concrete methods have been applied to bring out the phenomenon on those terms. Furthermore, I have strived for a maximal degree of transparency concerning the methodological and theoretical choices shaping the approach to autism and social interaction adopted in this study.

In addition to these general quality criteria originating from the qualitative research paradigm, additional commitments present themselves when considering a phenomenological approach to qualitative research specifically (Sousa, 2014). According to Herbert Spiegelberg, "phenomenology adopts as its final test of truth the direct self-evidence of intuitive data" (Spiegelberg, 1942, p. 428). How should such evidence be understood? According to Zahavi, "the term 'evidence' is used to designate the originary, that is original and optimal, givenness of the intended object" (Zahavi, 2003, p. 33). In phenomenological philosophy, an object is given as directly and optimally as possible in perceptual experience, where it is present 'in the flesh' (Zahavi, 2003). Knowledge thus increases

with the presentation of the experiential richness of the phenomenon as presented from various angles and profiles. The fact that “our perceptual acquaintance with the world is a permanent condition of and a source for linguistic meaning” (Zahavi, 2003, p. 29) implies that the quality of phenomenological research resides in its ability to express the manifold ways a phenomenon appears in perceptual, bodily experience.

This idea means, first and foremost, that scientific knowledge of a phenomenon must be based on how it presents itself in intuitive experience. In my view, this imposes three qualitative criteria for phenomenological research: First, that the data material reflects the experiential features of the phenomenon, second, that the data material is adequate for the researcher to understand and describe such features phenomenologically, and third, that the results are communicated in a way that others can understand, corroborate, or challenge its claims.

Regarding the first criterion, we must consider how the first-person descriptions provided by research participants reflect their experiences of the phenomenon in focus. From a phenomenological perspective, experience is dynamic, relational, and situationally embedded. Thus, description is never a 1:1 depiction of a prior experience (Høffding & Martiny, 2016). Evaluating the quality of descriptions in the data material is, thus, a matter of assessing the description’s ability to open an understanding of the experiences in focus based on its level of nuance, detail, and richness.

Regarding the second criterion, it can be evaluated by looking at the internal consistency between the different descriptions of the phenomenon in the data material, described by Høffding and Martiny as “internal phenomenological consistency,” reflected by the researcher possibility to understand the data material as a whole and make it comprehensible phenomenologically (Høffding & Martiny, 2016).

Regarding the third criterion, qualitative research represents the world through different textual media such as field notes and interview transcripts (Denzin & Lincoln, 2018). From a phenomenological perspective, the quality of such textual representation should be understood through its ability to communicate the manifold appearances of the phenomenon. This has important bearing on how a study’s results are communicated, reiterating the general quality criterion of transparency. In the field of phenomenological psychology, there is a general inclination to “offer readers prepared or explicated data instead of curated raw data” because “a very close analysis of the direct expressions of the participants” have already been performed earlier in the analytic process (Englander & Morley, 2021, p. 12). Instead, I think the phenomenological aim to describe experience necessitates presenting the research participants’ experiential descriptions as authentically as possible. Because these descriptions represent intuitive evidence for the presented results, they allow the reader to intuitively grasp the experiential features of the phenomenon. In this study, I have communicated the results by presenting particularly rich empirical excerpts from the data material that, in an exemplary way, capture essential features of autistic intersubjectivity that emerged through the analysis.

Research ethics

To ensure the ethical integrity of this study, it was reviewed by the Danish Committee System on Health Research Ethics prior to the commencement of data collection. The study was planned and conducted according to international guidelines on research ethics in the social sciences and humanities published by the European Commission (2018). These guidelines build on widely accepted declarations on research ethics and the ethical treatment of research participants, such as the Nuremberg Code, the Helsinki Declaration, and the Belmont Report. Although these declarations have been developed with primary regard to the experimentation with human subjects in empirical research, their ethical principles apply equally to qualitative and explorative research. The most fundamental of all ethical principles across these various declarations and guidelines is respect for the individual. In the following, I will describe how this principle of respecting the dignity, autonomy, equality, and diversity of research participants has guided decisions concerning the ethical integrity of the study. In autism research, this principle is of pivotal importance because it implies the ideal of including autistic voices and experiences in the research process (Pellicano & Stears, 2019).

Informed consent

Honesty and transparency toward research participants guided the process of securing informed consent, including the possibility and right to withdraw consent. This was achieved through the process of fieldwork in the autism groups. Fieldwork enabled informal conversations with research participants about the purpose and methods of the study and talks at both group meetings and parent meetings about my research and involvement in the autism groups. The process of seeking consent was thus both informal and formal. Consent was sought informally and continuously through conversations with group participants where openness and trust were built. Formally, it was sought through a written consent form signed by research participants (and parent/guardian, if minor). A copy of the consent form used in this study is attached in appendix (1).

Autistic persons' capacity to give informed consent to research participation has been questioned due to a diminished ability to understand study information and weigh potential risks against benefits (Hamilton et al., 2017). During the development of this study, I have encountered worries about the ability of autistic persons to give informed consent due to the idea that autism is characterized by diminished self-awareness, ability to express needs and concerns and assess whether research participation may impact them negatively. Although this worry may be valid in some cases, it, unfortunately, speaks to a general tendency to question the epistemic authority of autistic people on the grounds of the problematic claim that autistic persons have diminished access to their own mental states and that autistic self-reports consequently should not be considered veridical (Frith & Happe, 1999; Hens et al., 2019; McGeer, 2005). Balancing ethical considerations that

are sometimes contradictory is an active choice on the part of the researcher. In this case, doubting the ability to give informed consent would be problematic and only contribute to a tendency for non-autistic persons to “claim that they are best placed to speak for autistic individuals” (Milton et al., 2012). Instead, I have prioritized a maximal degree of openness and transparency regarding the purpose and methods of the study, invited feedback, input, and dialogue from research participants, allowing time to consider research participation, and encouraged dialogue with friends, family, or other trusted persons to discuss benefits and risks of participating in the study.

Data protection and pseudonymization

Data in the form of field notes, audio files, and interview transcripts were acquired, stored, and used in compliance with EU regulations on data protection (Regulation (EU) 2016/679 of the European Parliament and of the Council, 2016). Written consent from research participants was sought for collecting, storing, and processing of personal data as described above. Qualitative inquiry inevitably involves personal data. All data included in this study was recorded offline and stored on a network drive physically located on the server facilities of Roskilde University, with access provided only to authorized personnel. To protect the identity of research participants, personal data in the form of names, place names, or other information that could compromise the anonymity of research participants, were pseudonymized with identifiers kept secured and separated.

Assessment of risks and benefits

Potential risks and benefits were thoroughly evaluated before commencing data collection and assessed continuously in the everyday context of research. The primary consideration was the principle of protecting vulnerable research participants from potential risks following research participation and avoiding exacerbation of potential emotional and psychological stress. The balancing of risks and benefits was centered on an inherent ambivalence concerning the role of social interaction in autism research.

On the one hand, experiences of social interaction represent a challenging and potentially traumatic topic of discussion for autistic persons and are often associated with bullying, loneliness, and depression (Bauminger & Kasari, 2000; Hedley & Young, 2006). To address the issue, great care was taken to ensure that participants did not feel obligated to share information about problematic or potentially triggering experiences. Interviews were designed according to the needs and preferences of participants, and a pedagogical employee was made available for debriefing if needed. On the other hand, the topic of social interaction also represents an important arena of change, resistance, and opposition to the neurotypical social norms underlying experiences of bullying and ostracization in an autistic life. Exploring and communicating autistic experiences and practices of social interaction thus presents the opportunity for an autistic reappropriation of social norms,

resistance to the pathologization of autistic social behaviors, and broadening the notion of intersubjectivity.

Autistic knowledge contra knowledge of autism

According to Kristien Hens, Ingrid Robeyns, and Katrien Schaubroeck (2019), an important ethical issue when studying autism is the tension between producing knowledge of autism and producing autistic knowledge. A central tenet of the neurodiversity movement and autism community is the political slogan “nothing about us, without us,” which calls for autistic voices to be included in policy making and autism research (ASAN: Autistic Self Advocacy Network, 2021). According to Damian Milton, autism research is often characterized by taking autism as an object of study that is sought remediated and modified without consideration for autistic persons’ own perspectives and without the inclusion of autistic persons in the research process. As an autistic author, he encourages

moving beyond an ideology of seeing autistic people as mere passive subjects in the research process, to accommodating autistic people as collaborators, consenting participants, and colleagues (Milton, 2013).

This study thus encounters tension between, on the one hand, exploring autistic social experiences and practices as “objects of study” and, on the other hand, exploring social interaction from an “autistic perspective.” The difference is subtle but important and concerns the discrepancy between considering autism from an ‘outside’ perspective and re-imagining social practices through an autistic lens. Although this study has not adopted a participatory research design (Fletcher-Watson et al., 2019), an important driving factor has been granting autistic experiences an epistemic authority in characterizing autism. From a phenomenological perspective, what autism is should be understood through how it is experienced. This inevitably involves considering the perspectives and insights of autistic persons as the most valuable source of knowledge on autism. In this context, a phenomenological approach can help remedy the epistemic injustices faced by autistic persons due to the disparity between first- and third-person accounts of autistic sociability, where autistic testimony is often ignored in favor of stereotyped beliefs that autistic persons are fundamentally asocial (Catala et al., 2021).

This study’s ambition of exploring social interaction processes from an autistic perspective introduces yet another ethical issue identified by Hens and colleagues (2019, p. 3) as arising from “the great heterogeneity among the people diagnosed with autism.” This raises the question of how to do justice to the manifold autistic experiences and subjectivities represented by the notion of autistic intersubjectivity. Ultimately, this consideration represents a tension between, on one hand, respecting autistic approaches to social encounters and, on the other hand, grouping the diversity of autistic experiences under one heading. In response to Hens and colleagues’ (2019) question of whether the

heterogeneity of autistic experience calls for an abolishment of the label autism altogether, I argue that autism constitutes not only a psychiatric entity but also a social and cultural identity (Bagatell, 2010; Giles, 2014; Ne'eman, 2013). Thus, the notion of autism itself represents an important arena for promoting diversity and challenging pathologization.

Article 2

Social Interaction Style in Autism: an Inquiry into Phenomenological Methodology

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Abstract

Autistic difficulties with social interaction have primarily been understood as expressions of underlying impairment of the ability to ‘mindread.’ Although this understanding of autism and social interaction has raised controversy in the phenomenological community for decades, the phenomenological criticism remains largely on a philosophical level. This article helps fill this gap by discussing how phenomenology can contribute to empirical methodologies for studying social interaction in autism. By drawing on the phenomenology of Maurice Merleau-Ponty and qualitative data from an ongoing study on social interaction in autism, I discuss how qualitative interviews and participant observation can yield phenomenologically salient data on social interaction. Both, I argue, enjoy their phenomenological promise through facilitating attention to the social-spatial-material fields in and through which social interactions and experiences arise. By developing phenomenologically sound approaches to studying social interaction, this article helps resolve the deficiency of knowledge concerning experiential dimensions of social interaction in autism.

Keywords: Phenomenology, autism, social interaction, qualitative methodology, Merleau-Ponty

Introduction

In the current diagnostic guidelines (American Psychiatric Association, 2013; World Health Organization, 2018) as well as in the historical literature (Asperger, 1991; Baron-Cohen et al., 1985; Bleuler, 1950; Kanner, 1943), autism is described as a disturbance of the ability to understand and engage with the social world. Since the 1980s, the paradigm of theory of mind has retained a dominant position in autism research and described social difficulties in autism as results of a failed maturation of the cognitive system arguably responsible for our ability to infer the mental states of others. Although theory of mind has been widely accepted in the fields of autism research and cognitive psychology for roughly three decades, it continues to spark controversy in the phenomenological community (Dant, 2014; Fuchs, 2015; Fuchs & de Jaegher, 2009; Gallagher, 2012, 2013; Zahavi, 2005; Zahavi & Parnas, 2003), in the field of 4E cognition generally (Newen et al., 2018), and specifically in enactive cognition (de Jaegher, 2013; Fantasia et al., 2014).

The phenomenological and enactivist criticisms of theory of mind dispute the assumption that social understanding and interaction are higher-order cognitive achievements and urge autism research to consider sociality in terms of embodied experience and situated interaction. The critical engagement with theory of mind offers an appealing alternative conception of sociality based on embodied intersubjectivity rather than higher-order cognitive processes. However, this criticism has largely remained on a conceptual and theoretical level.⁹ Although this is understandable since the *métier* of philosophers is to perform philosophical analyses, it is nonetheless regrettable. Theory of mind has built its empire on the power of empirical studies, and thus, it is unlikely that the mainstream understanding of autism will change without alternative empirical research strategies. The purpose of this article is to help fill this gap by discussing how phenomenology can contribute to a qualitative methodology for studying social interaction in autism¹⁰ and thus to advance and add to the already rich diversity of empirical phenomenological methodologies.¹¹ Given that the core of autism is widely considered to be of a

⁹ Although theory of mind and other cognitivist approaches to autism and to consciousness in general have been criticized from the standpoint of empirical science (e.g. phenomenological psychological critiques such as Frederick Wertz' criticism of cognitive theories of perception (Wertz, 1987), Giorgi's criticism of experimental psychology (Giorgi, 1971) and Davidson and Cosgrove's discussion of psychologism (Davidson, 1988; Davidson & Cosgrove, 2002, 1991), I focus here on the specific critique of theory of mind emanating from the philosophical phenomenological community.

¹⁰ In the past decade, a number of empirical studies on autism using a phenomenologically inspired methodology have emerged (Desai et al., 2012; Huws & Jones, 2015; Newman et al., 2010; Williams, 2004; Zukauskas et al., 2009). However, none of these studies tackle the phenomenon of social interaction in autism directly.

¹¹ See Giorgi's descriptive phenomenological method (Giorgi, 2009), variants of hermeneutic life-world analysis advocated by Max Van Manen (1990) and Peter Ashworth (2003), Smith's interpretive phenomenological analysis (Smith, 2009), and Honer and Hitzler's life-world analytic ethnography (Honer & Hitzler, 2015).

social nature, this discussion will naturally be of interest to autism research, but also to the various types of empirical research that identify as phenomenological.

The article will proceed as follows: First, I will present the theory of mind hypothesis of autism and the debate it has ignited in the fields of phenomenology and enactive cognition. Second, I will review two approaches to designing qualitative methodologies with inspiration from phenomenology, the commonly used phenomenological interview and the more peripheral phenomenological approach to participant observation. Where the interview format has received considerable attention as best-practice in phenomenological research, participant observation has rarely been explicitly framed as a phenomenological method of data collection despite being generally acknowledged as part of the methodological reservoir of phenomenological research (Englander, 2020; Giorgi, 2009).¹² By drawing on the phenomenology of Maurice Merleau-Ponty, and in particular his notion of milieu and ontology of the flesh, I will discuss and rethink these approaches to empirical phenomenological methodology in order to strengthen their grasp on the phenomenon of social interaction.

Major phenomenological contributions to the study of social phenomena count Alfred Schutz' phenomenological sociology (Schutz, 1967) and his development of a life-world analytic approach to the constitution of social meaning as well as Harold Garfinkel's ethnomethodological investigations of the meaningful structuring of social environments (Garfinkel, 1967). In addition, phenomenologists within the field of psychology have also highlighted social processes in understanding psychological phenomena, such as Larry Davidson's account of the social and everyday processes involved in the constitution of schizophrenic experience (Davidson, 1992, 1994, 2003). Despite the great significance of these contributions to social phenomenology, my concern in this article is to discuss how recently emerging phenomenological and enactivist approaches to social interaction in autism may shape different methodological orientations in phenomenological psychology.

I will argue that an adequate study of social interaction invites a reevaluation of the methodological 'business as usual' in phenomenological research. More precisely, I will argue that phenomenological research is not only about first-person experience, but in an important sense also about the social-spatial-temporal fields in and through which experiences arise. Thus, this article serves as a methodological explication of the extra-individual dimension of first-person experience emphasized by phenomenology and discussion of how to trace such experiential 'alterity' in phenomenological psychological research. In the words of Davidson,

¹² Although this article does not explore the role of the phenomenological epoché in empirical research, a relevant discussion of how to construe participant observation as a phenomenological method is recently put forth by Jason Throop, who suggests the employment of an "ethnographic epoché" in phenomenological anthropological research (Throop, 2018).

Phenomenology begins with experience, which might appear on the surface to be individual in nature as well. But to view experience as entirely individual in nature is to repeat the Cartesian/ Kantian error of failing to look at the genesis, the constitution, of the meanings being accessed through, and derived from, experience (Davidson, 2017, p. 16).

Although this extra-individual dimension of experience is recognized in phenomenological research through the vital role played by the notion of intentionality (Giorgi, 1997; Giorgi et al., 2017; Langdrige, 2007), I argue the benefit of a methodological reorientation in order to emphasize its importance adequately. In other words, I will argue for rethinking phenomenological methodology in terms of its *Gegenstandsangemessenheit*, a concept borrowed from Klaus Holzkamp (1983) to emphasize the ability of theory and method to grasp its object. A central theme already in Amedeo Giorgi's early work (Giorgi, 1970), which was further explicated by Kurt Danziger, is how theory, data, and methodology "are enmeshed in relations of mutual interdependence" (Danziger, 1985, p. 1). Given that methods are not neutral tools, but in important ways shape and construct the object of inquiry, the phenomenological researcher should always work toward a fit between the methodological orientation and the phenomenon of interest. Giorgi aptly suggests the question, as cited in Magnus Englander (2020, pp. 65–66), "What is the best access to the phenomenon I am interested in researching, given the question I am seeking to answer?" (Giorgi, 2009, p. 63). With regards to studying social interaction in autism from the perspective of phenomenology, it is in this case a question of methodologically facilitating attention to how particular styles of interaction emerge in dynamic entanglement with other bodies, things and spaces.

During the article, I will develop these points by presenting and discussing qualitative data excerpts from an ongoing empirical research project on social interaction in autism. The data presented in this article are collected through qualitative interviews and participant observation conducted throughout a period of eighteen months in two social groups for adolescents and young adults with autism. This ongoing research is motivated by what could be termed a paradox in autism research. Although the core of autism is continuously recognized as an impaired ability to relate to and interact with others, autism research has rarely addressed the question of how participating in social interactions is experienced by autistic people. Moreover, the question of how individuals with autism actually do interact with other people is often neglected in favor of the persistent interest in how autistic individuals misperform in social situations. Thus, there is a significant lack of knowledge in autism research about the experiential and qualitative dimensions of the phenomenon of social interaction, which is taken to be fundamental to the nature of autism. As I will propose in this article, developing ways of empirically studying social interaction in autism in a way that converges with phenomenological and enactivist perspectives on sociality presents a fruitful way to resolve this inconsistency in mainstream autism research.

Autism and theory of mind

The core symptoms of autism are commonly recognized as a combination of difficulties with social communication (e.g. social-emotional reciprocity, nonverbal communicative behaviors, social relationships) and restricted, repetitive behaviors (e.g. stereotyped movements or use of objects, inflexible or ritualized patterns of behavior, restricted interests, hyper- or hyporeactivity to sensory input) (American Psychiatric Association, 2013; World Health Organization, 2018). Although there has yet to be developed a unified account of the various traits associated with autism, three theories currently occupy a prominent role in accounting for its characteristics. Research has pointed to (1) executive function deficits resulting in a weakened ability to flexibly manage one's own cognitive processes (Ozonoff et al., 1991; Pennington & Ozonoff, 1996), (2) a detail-focused cognitive processing style impeding the ability to process global coherence (Happé & Frith, 2006), and (3) impairment in the ability to cognitively represent other people's mental states, also called 'theory of mind' (Baron-Cohen, 1995; Baron-Cohen et al., 1985). In the following, I will focus on the latter of the three prominent theories. First, because theory of mind has held a dominant position in autism research since the 1980s, and second, because its account of social understanding has ignited a flourishing debate in the fields of phenomenology and enactive cognition.

The terms 'theory of mind', 'mentalising', and 'mindreading' have since the 1980s played a key role in discussions about the nature and development of social understanding within the fields of philosophy, psychology, and cognitive science. Theory of mind proceeds from the idea that higher-order cognition allows us to interpret other people's behavior in terms of mental state concepts, thus enabling an understanding of their psychological states, such as beliefs, intentions, and emotions (Carruthers & Smith, 1996). Although the field of theory of mind is characterized by a number of subdivisions and basic disagreements¹³, the winning paradigm in autism research has been the modular approach to theory-theory, according to which the ability to 'mindread' stems directly from the architecture of our brains (Scholl & Leslie, 1999, p. 131).

According to this framework, social difficulties in autism follow from an impairment of a specific cognitive module that allows people to infer the hypothetical mental states of other people (Baron-Cohen, 1995, 2001). In this way, the variety of social struggles experienced by people with autism are arguably caused by an impaired ability to "read" other people's minds. This theory has achieved its uncontested status in autism research by developing an experimental paradigm that tests for impairment in the distinct cognitive mechanism arguably responsible for social deficits in autism. By measuring children's emerging ability to exert cognition about other people's cognition, this paradigm has

¹³ Even though it is now standard to integrate different views within the field of theory of mind, two main stances are clearly discernible: theory-theory (Gopnik & Meltzoff, 1997; Leslie et al., 2004) and simulation theory (Goldman, 2006; Gordon, 1986).

grown into an immense empirical research area centered primarily on varieties of the so-called ‘false belief task’ (Baron-Cohen, 1995; Wimmer & Perner, 1983).¹⁴

The idea of the false-belief task is to design an experimental situation that isolates and measures the exact cognitive mechanism of interest and yields clear observational data devoid of any situational or subjective elements, thus allowing the researcher to focus solely on the object of study. The original study by Simon Baron-Cohen, Alan Leslie and Uta Frith (1985), which since then has been reproduced innumerable times, revealed striking results: 80% of autistic children failed the false-belief task, and are consequently, in the words of Baron-Cohen (1995), *mindblind*. Ivan Leudar and Alan Costall describe theory of mind as “one of the most recent, and certainly most influential, outbreaks of ‘scientism’ in psychology” (Leudar & Costall, 2009, p. 11). In autism research specifically, theory of mind represents the idea that social understanding can be investigated exhaustively by the methods of the natural sciences. Thus, theory of mind proposes that the social dimension of autism can be readily observed and quantified; that social phenomena are objects in the world available for scientific measurement.

In the following, I will briefly flesh out the objections to these assumptions raised by scholars within both the philosophical-phenomenological and enactivist research community. These objections can productively be read within the broader context of phenomenological psychological critiques of psychology’s natural scientific inclinations (Davidson, 1988; Davidson & Cosgrove, 2002, 1991; Giorgi, 1971; Wertz, 1987). In the words of Davidson and Lisa Cosgrove, psychology has “remained fettered to their naturalistic heritage, assuming that the objective world provides the ground for (psychological) subjectivity” (Davidson & Cosgrove, 1991, p. 103). To move forward, “we must distance ourselves from the assumption that psychological subjects and their lived experiences may be studied and understood as objects of Nature” (Davidson & Cosgrove, 1991, p. 103).

Enactivist and Phenomenological Responses to Theory of Mind

Already in the heydays of cognitive psychology when the theory of mind paradigm was on the rise, criticism emerged from the field of psychology. Drawing on Ulric Neisser (1976) and Merleau-Ponty (Merleau-Ponty, 1968, 2012), Frederick Wertz (1987) criticizes the information-processing model originally launched by Allen Newell, John Shaw, and Herbert Simon (Newell et al., 1958), but still inherent in present day theory of mind research, for its representationalist assumptions and for neglecting the meaningful em-

¹⁴ The classical false belief task, devised by Baron-Cohen, Leslie, and Frith (1985) as a modified version of Wimmer and Perner’s (1983) puppet play paradigm, presents the test subject with a hypothetical scenario involving two dolls, Sally and Anne. Sally is shown to hide her marble in a basket, and then leaving the scene. Anne has witnessed this, and after Sally has left, she moves the marble from the basket to a box. Sally then returns, and the child is asked the question: ‘Where will Sally look for her marble?’ (Bowler, 2007, p. 27).

bodied involvement in perceptual and cognitive processes. Despite such critical engagement, theory of mind has continued to dominate the fields of social and cognitive psychology for roughly three decades. Recently, the theory of mind paradigm has sparked renewed controversy in the phenomenological community (Dant, 2014; Fuchs, 2015; Fuchs & de Jaegher, 2009; Gallagher, 2012, 2013; Zahavi, 2005; Zahavi & Parnas, 2003), from the perspective of 4E cognition generally (Newen et al., 2018), and specifically in the field of enactive cognition (de Jaegher, 2013; Fantasia et al., 2014).

Phenomenological and enactivist criticisms of theory of mind argue that social cognition, construed as a higher-order cognitive process, is in no way our primary mode of social understanding. In everyday social encounters, the emotions and intentions of other people are not hidden and unobservable entities as theory of mind would have it, but apparent and accessible in the other's bodily expressions as well as in our joint interaction. Thus, we do not need processes of inference and metarepresentation to understand the minds of others. Rather, we understand each other immediately and fluently based on situated and embodied interaction. Thus, phenomenologists and enactivists dispute the basic assumption in theory of mind that social understanding is achieved from cognitive, inferential, and representational processes.

Furthermore, scholars within both the fields of phenomenology and enactive cognition have commented, not only on the theory of mind account of social cognition in general, but also on the theory of mind hypothesis of autism. Here, phenomenologists typically make reference to how the Other appears in interpersonal experience and empathy and argue that autism research should take into account how autistic people experience themselves and interpersonal relations from an embodied first-person perspective (Dant, 2014; Zahavi, 2005; Zahavi & Parnas, 2003). This point is further elaborated in Miraj Desai's research in which he develops an account of autism as a socially contextualized phenomenon and takes the first-person experience of the person-in-context as empirical basis (Desai et al., 2012; Wertz et al., 2017).

Although phenomenological and enactivist responses to theory of mind are largely convergent, enactivists refer to how social cognition is constituted by dynamic social interaction, thus shifting the focus from experience to reciprocal embodied engagement. When applied to the case of autism, enactivism urges us to take into account the actual embodied and interactional engagement of autistic individuals rather than starting from the premise of social deficits (de Jaegher, 2013; Fantasia et al., 2014). Thus, from a phenomenological and enactivist perspective, the standard accounts of social interaction in autism represent varieties of internalist approaches that reduce intersubjective processes to what goes on "inside the heads" of individuals and that "[...] do not seem up to the task of taking the real interaction into account" (Fuchs & de Jaegher, 2009, p. 466).

From Phenomenological Philosophy to Phenomenological Methodology

Contemporary phenomenological criticism of theory of mind offers an appealing alternative conception of sociality based on intersubjectivity and embodied interaction rather than higher-order cognitive processes. And as I have pointed out, given the intense controversy that theory of mind has raised in the philosophical and psychological community, it is imperative to advance discussions of how to design phenomenological studies in terms of their grasp on empirical social interaction as conceived by phenomenology. Namely, as an embodied, dynamic, situated and intersubjective phenomenon. As Bruce Levi aptly addresses this issue in his 1978 dissertation on improvisational dance,

What these events share is the manner in which peoples' gesturing bodies move together. Often they appear to flow together in an orderly, cohesive, and dynamic manner, whether one is an observer or participant. There is at present no clear way of conceptualizing this orderly, cohesive, dynamic, and often spontaneous stream of gestural activity (Levi, 1978, p. 2).

Although philosophers rarely venture into the particulars of empirical research, discussions of how to apply phenomenology as a methodological approach have abounded for decades within the fields of psychology and qualitative research (Finlay, 2009, 2013). As stated by Giorgi and emphasized by Wertz, the aim of empirical phenomenological research is to “faithfully conceptualize the processes and structures of mental life, how situations are meaningfully lived through as they are experienced, with “nothing added and nothing subtracted” (Giorgi, 2009)” (Wertz et al., 2011, pp. 124–125). Yet, applied phenomenological research encompasses a variety of different research strategies that offer diverging answers to questions such as the role played by Edmund Husserl’s phenomenological method or whether researcher subjectivity should be foregrounded or sought ‘bracketed.’

Recently, phenomenological philosophers have commented on a number these discussions within qualitative psychology. Concerning Giorgi’s descriptive phenomenological psychology, which is strongly influenced by Husserlian phenomenology (Giorgi, 2009), Dan Zahavi argues that Husserl did not intend his phenomenological psychology to work as a research manual for qualitative psychologists (Zahavi, 2019a). Rather, Husserl’s reflections on phenomenological psychology were primarily intended “to facilitate the entry into proper philosophical thinking” (Zahavi, 2018, p. 119). On Zahavi’s account, the ambition of adopting phenomenology as a methodological framework for applied psychology seems somewhat futile.¹⁵ Similarly, Shaun Gallagher and Jesper Brøsted

¹⁵ In response to Zahavi’s point that phenomenology as a transcendental philosophy should be clearly distinguished from phenomenological psychology as an empirical science, one could look to some of the arguments presented by Wertz (2016) and Davidson (2021), who both argue for the merits of a transcendentially informed rather than transcendentially naive empirical psychology.

Sørensen has argued that phenomenologists are not interested in the individual or psychological experiences that people have, but in the invariant organizing structures of such experiences (Gallagher & Sørensen, 2006, p. 121). They suggest frontloading phenomenological notions and insights in empirical research designs, thereby allowing phenomenological analyses to inform the design of empirical studies. In this way of using phenomenology, “there may or may not be any phenomenological method” (Gallagher & Sørensen, 2006, p. 125).

My point here is not to naively rehearse Zahavi, Gallagher and Sørensen’s critiques of empirical phenomenological research, neither it is to discuss what can properly be termed phenomenological nor what role the epoché and the reduction should play in phenomenological research. On the contrary, I argue that philosophical phenomenology contributes invaluable to the theory, method, and practice of psychological research as Husserl himself argued by positing phenomenology as the proper basis for empirical psychology (Husserl, 1977). Yet, recent discussions have shown a certain skepticism from members of the philosophical community about the idea of construing empirical research strategies as phenomenological as such. Although I agree that it might not be useful to let a philosophical method serve as the ideal model for an empirical method or to evaluate qualitative research according to how its methodology conforms to the criteria laid out by philosophers, I think another point needs to be made. If empirical data is to be used in a mutually enlightening dialogue with phenomenology, the question remains of how to ensure that the collected data is suitable and adequate for a phenomenological analysis. Regarding the present case of social interaction in autism, my discussion will thus concern how to use qualitative research in a way that converges with phenomenological perspectives on sociality.

Social Interaction Style in Autism

In the ongoing research project from which I will draw samples of empirical data throughout the rest of this article, I have studied how adolescents and young adults with autism interact with each other and experience participating in social situations and interactions. The aim of this study is to explore how particular social interaction styles in autism emerge in the dynamic encounter between autistic experience and the material, sensible, and normative environments in which social interactions take place. Thus, a crucial agenda of this research project is to develop an understanding of social interaction in autism that respects its experiential, situational and embodied aspects and that productively bypasses the tendency in autism research to see social behaviors in autism as results of a failed competence ascribable to the individual.

In addition, James Morley has pointed out (in direct response to Zahavi’s criticism of phenomenological psychology) that “many philosophers promote the use of phenomenological methodology [...] as an interdisciplinary practice and would reject this notion that philosophical phenomenology holds ‘disciplinary sovereignty’ regarding phenomenological methodology” (Morley, 2019, p. 165).

The empirical part of this study was conducted through fieldwork in socializing and networking groups, which, with their ambition of facilitating friendship with peers and providing social competence training, are becoming an increasingly popular way to address social difficulties connected with autism in youth. Throughout a period of eighteen months, I observed and participated in two social network groups each consisting of 10–15 adolescents and young adults with autism: one mixed-gender group for adolescents between the ages of 15 and 21, and one group for women between the ages of 18 and 27. As part of the fieldwork, I carried out qualitative interviews with eleven of the group participants about their sensory and embodied experiences of participating in social interactions. By participating in, observing, and talking with the group participants about their experience of social interaction, the study explores social interaction in autism as both an embodied practice, a way of doing, and as characterized by the experience of mutual connectedness and reciprocity.

In the following, I will discuss the two data collection methods (qualitative interviewing and participant observation) adopted in this study as methodological entry points to the phenomenon of social interaction style in autism. I will discuss what role these methods have typically played in phenomenological research and argue how each invite and enable consideration of the intertwinement between social interaction and the material, social, and sensory environment. During these discussions, I will present exemplary extracts from interview transcriptions and field notes produced as part of my research. I will begin by discussing the role of the qualitative interview in phenomenological research. I will then argue that the common usage of the interview involves an important pitfall for the phenomenological psychologist; namely of assuming the subject as author of its own experience.

Phenomenological Psychology and the Qualitative Interview

The purpose of the qualitative interview in phenomenological research is usually framed as a way to generate knowledge about a phenomenon through exploring how it is experienced from the first-person perspective. According to Englander (2012), studying lived experience in a structured and rigorous way requires thorough and detailed descriptions of concrete, lived experience, which can be obtained through the interview. The phenomenological interview proceeds as a conversation, where the researcher invites the interviewee to describe in detail his or her experience. In the words of Englander,

The basic issue here is that we as phenomenological researchers are interested in the subjectivity of other persons and thus it seems logical that we would want to get a description of such subjectivity (Englander, 2012, p. 15).

A crucial part of obtaining such descriptions is to ask the interviewee to describe a situation in which he or she has experienced the phenomenon investigated by the researcher (Bevan, 2014; Englander, 2012, 2016, 2020; Giorgi, 2009; Giorgi et al., 2017). This strategy is commonly employed to invite the interviewee to describe the phenomenon as

freely and extensively as possible while maintaining the highest possible degree of concreteness and level of detail. Englander (2012, 2020) has recently emphasized how this strategy is also vital to ensure that the actual context in which the phenomenon appears is maintained in phenomenological analysis. I will return to this point later in relation to my discussion of participant observation as a phenomenological method of data collection.

As Claire Petitmengin (2006) argues, the purpose is to elicit and highlight pre-reflective and embodied aspects of experience through the process of guiding the interviewee's attention away from explanations, evaluations or judgments of the experience and toward describing how the experience proceeded. According to Simon Høffding and Kristian Martiny, a central ambition of doing qualitative interviews in phenomenological research is to "[...] disclose invariant phenomenological structures" (Høffding & Martiny, 2016, p. 543) in the interviewee's experience. Davidson emphasizes how the use of the qualitative interview in phenomenological research relates to Husserl's call for a return "[t]o the things themselves" (Husserl, 1983, p. 35) by directing the researcher's attention toward "how the phenomena of interest present themselves to us in "originary" (first-person) experience" (Davidson, 2003, p. 29). Thus, a common feature across different approaches to the phenomenological interview is the ambition of explicating the normally tacit and taken-for-granted aspects of our experience of the world. By urging the interviewee to describe in as much detail as possible the "how" or the "what it is like-ness" of experience, the central aim is to gain access to its normally tacit and pre-reflective dimension (Englander, 2012; Høffding & Martiny, 2016; Petitmengin, 2006).¹⁶

One strand of phenomenological research in which the interview occupies a central role is the approach to phenomenological psychology coined by Giorgi in the 1970s. Phenomenological psychology developed as a response to the mainstream of academic psychology, which at the time was heavily influenced by a natural scientific approach to the study of human phenomena (Smith, 2010). Giorgi argued that psychology should be based on a humanistic science that "supports a nonreductionistic approach, sees value in seeking the meaning of qualitative phenomena, and acknowledges the nonnaturalistic status of consciousness" (Giorgi, 2009, p. 212). Broadly construed, phenomenological psychologists are interested in examining concrete, lived experience in a structured and rigorous way (Finlay, 2013). According to the approach advocated by Giorgi, the phenomenological method as applied to psychological phenomena allows the researcher to arrive at the general structure, or essence, of how psychological phenomena are experienced (Giorgi et al., 2017).

¹⁶ Recently, the phenomenological interview has been construed by Zahavi and Martiny as a "hands-off approach, which basically reduces the interviewer to a tape recorder" (Zahavi & Martiny, 2019, p. 5). In direct response, Englander (2020, p. 63) has argued that this critique fails to take into account the complex interpersonal activity between interviewer and interviewee enabling the in-depth level of description of experience characteristic of phenomenological interviewing.

According to Giorgi (2009, p. 80), the psychological phenomenological reduction is the pivotal methodological step the psychologist performs in order to arrive at the general structure of psychological phenomena.¹⁷ With the psychological phenomenological reduction, objects are reduced to phenomena as presented in experience, allowing the researcher to access the intentional relation between experiencing subject and experienced phenomenon (Davidson & Cosgrove, 1991; Englander, 2016; Giorgi, 2009). The notion of intentionality thus plays a fundamental role in phenomenological psychology, which starts from a notion of experience as object-directed, relational and world-involved, as a relation of co-dependence between subjectivity and objectivity. This is evident from the rich tradition of phenomenological psychological studies, where psychological phenomena such as moving as one (Levi, 1978), learning (Giorgi, 1985), criminal victimization (Wertz, 1985), driving a car (van Lennep, 1987), daydreaming (Morley, 1998), recovery (Davidson, 2003), early emotional memories (Englander, 2007), mental illness (van den Berg, 1972) and countless others are portrayed as constituted reciprocally by the socio-cultural, historical and worldly context (Davidson, 2017) and the subjective acts through which the phenomenon is grasped. In the words of Giorgi, There are not two independent entities, objects and subjects, existing in themselves which later get to relate to each other, but the very meaning of subject implies a relationship to an object, and to be an object intrinsically implies being related to subjectivity (Giorgi, 1997, p. 237).

Despite this widespread understanding of psychological phenomena, the experiencing subject is often described as the meaning-originator in the intentional relation. Although clearly acknowledging the intrinsic interdependence of subjectivity and objectivity (Giorgi, 1997, p. 237), Giorgi also argues that “meanings are originated in acts of consciousness” (Giorgi, 2009, p. 80) and that “consciousness constitutes its perceived objects” (Giorgi, 2009, p. 185). In their related discussion of psychologism, Davidson and Cosgrove touches on the same tendency to assume “that intentional constitution is a psychological function” (Davidson & Cosgrove, 2002, p. 144).

Although it is clear that phenomenological psychology is not about first-person experience, but rather about phenomena as constituted through self-world- other relations, there is a looming danger of falling back on subjectivistic language and thus to inadvertently privilege the subjective pole in the constituting-constituted relationship. Such a reading is reinforced by standard literature on the phenomenological interview (as discussed above) describing the goal of phenomenological analysis as the disclosure of the invariant structures of first-person experience. Englander recently construes the aim of

¹⁷ Crucial to the practice of phenomenological psychology as conceived by Giorgi and colleagues is the adherence to a Husserlian conception of the epoché and the reduction (Englander, 2016; Giorgi, 1997, 2009; Morley, 2010). Drawing on Husserl (1977), Giorgi and colleagues argue that phenomenological psychologists should perform the psychological phenomenological reduction, which aims to reveal phenomena as they present themselves to empirical consciousness rather than consciousness as such (Giorgi et al., 2017, p. 180).

phenomenological interviews as one of generating descriptions of psychological phenomena as they appear in the lived experience of the research participants (Englander, 2020). Yet, it is emphasized on several occasions that the interview is only one possible form of data collection, and that the data collection approach “has to fit the phenomenon under investigation” (Englander, 2020, p. 59). A question worth discussing is how the interview format fits the phenomena targeted by phenomenological psychology.

Phenomena as they are conceived in phenomenological psychology refer both the subjective acts in which they appear and to their socio-cultural, historical, and material contexts, and as Zahavi argues, Husserl’s concept of constitution implies that both subject and world “are irreducible structural moments in the process of constitution, the process of bringing to appearance” (Zahavi, 2003, pp. 73–74). Thus, “the constitutive performance is characterized by a certain reciprocity insofar as the constituting subject is itself constituted in the very process of constitution” (Zahavi, 2003, pp. 73–74). The purpose of bringing the concept of constitution into this discussion is not to make psychologists responsible for the nuances of Husserl’s transcendental philosophy. Yet, the consistent use of experience as methodological frame of reference in phenomenological psychology too easily results in an unintended inattention to how subjectivity is itself accomplished and shaped in and through encounters with alterity.

Rune Mølbak has previously criticized phenomenological psychology for treating the subject as the irreducible basis for experience and argued that the phenomenological researcher should treat experience as “its own type of experiential event rather than a given of experience itself” (Mølbak, 2012, p. 194). Mølbak argues that the concept of intentionality, rather than merely describing a characteristic of subjective consciousness, points to the inseparability of subject and object. Thus, the intentional relation does not only bring about an object for an experiencing subject, but also vice versa in that subjectivity is irreducibly intertwined with objectivity.

As we have seen previously, this central phenomenological tenet is shared broadly in the field of phenomenological psychology. Yet, this discipline is often described as the psychological study of subjective experience as if the first-person perspective was an end in itself. Although the target of phenomenological psychology is psychological phenomena, the medium through which to access these phenomena is that of subjective experience, usually as described in impressive depth and richness through the interview format. My point here is that method matters as it is what enables the phenomenon to come into view and shapes its way of appearing. In this case, the use of the phenomenological interview requires strict attention on the part of the phenomenological researcher to avoid the experiencing subject as final reference point in favor of explicating how experience

emerges in dialogue with what is, in a sense, external to it. As Giorgi and Giorgi themselves point out in the context of discussing the role of the transcendental in the practice of phenomenological psychology,¹⁸

[...] references to meanings beyond the psychological subject providing the description are clearly ascertainable [...] These expressed meanings had familial, social, and cultural sources and no claim was made that they originated in her (Giorgi & Giorgi, 2008, p. 172).

An important task for a phenomenological psychology is thus to trace and describe such extra-individual dimensions of experience. In the words of Emmanuel Alloa,

If experience is not something for which we can claim authorship (let alone ownership), all the other instances that shape experience and its meaning have to be taken into account (Alloa, 2017, p. 11).

In the following, I will argue that one way to help accomplish this absolutely pivotal aspect of phenomenological psychological research is to consider the qualitative interview not only as a medium through which to study the meaning-generating aspect of experience, but also as a way to explore how experience is itself accomplished by the alterity of world.

Tracing Social Experience ‘Outward’

The interview as a research situation centered on gathering fine-grained descriptions of subjective experience can easily lure the phenomenological researcher into assuming subjectivity as the comfortable ground of experience. To be clear, I am not arguing against the use of interviews in phenomenological research, but I do want to unsettle the idea of subjectivity as the definitive framework within which to view experience. Regarding social interaction in autism, it is particularly important to avoid a ‘return’ to the experiencing subject because it invites a unilateral perspective, as is often seen in autism research, where breakdowns of reciprocal social interaction is traced back to the autistic party in the social encounter. In the following, I will present an extract from an interview conducted with a 17-year-old young woman with Asperger’s Syndrome in order to illustrate how it is possible to treat the experience of social encounters as “its own type of experiential event” (Mølbak, 2012, p. 194). In the following, Hanna describes a Christmas Eve with her family as an example of being in a stressful social situation.

Christmas Eve

“There are people talking, people yelling, my cousin and sister are running around like crazy, there are people opening Christmas presents and music in the background, and it is just as if all of these things are happening all at once. All the sounds, it is as if they become amplified. Everyone is talking, and then it is as if I just go blank. My ears are

¹⁸ This discussion was primarily initiated by Davidson and Cosgrove (2002) in their discussion of psychologism and phenomenological psychology. For a review, see Englander (2016).

ringing, and I have trouble with where I should focus. I get very anxious, and I feel like I can't be in my own body. I don't know what to do with myself. It's hard to explain.”

Can you describe this feeling of being anxious further?

“It is like I'm beginning to shake uncontrollably and can't sit still. I just want to get out of my body, although I can't. No matter what I do, I can't get calm.”

And then what do you do?

“I try to push it away, but it's difficult because you hear sounds no matter how much you don't want to hear them. You can't just shut down your hearing. I get very quiet and shut within myself so I can focus better, and I try to close ... or to go into myself and just try to do whatever it takes to be in this situation, and yeah, to create a bubble around myself.”

In this brief excerpt, Hanna describes how the social activity around her – movements, voices, music – becomes amplified, intrusive, and overwhelming to a point where she disconnects from her social surroundings and herself. Yet, Hanna's description does not only reveal a socially stressful experience or a case of auditory hypersensitivity resulting in an autistic meltdown:¹⁹ It does not only point to an autistic young woman whose experience bestows the world with a sense of intrusiveness. What her description reveals is her becoming autistic by virtue of an overwhelming world. When she withdraws and encloses herself within the boundaries of her bubble, she fulfills the prophecy of autism as the enclosure in a private world, which was first described by Eugen Bleuler (1911/1950) in the beginning of the 20th century.²⁰ This point is neither meant to make Hanna accountable for her autism nor to argue that her autism is a social construct, but to emphasize that her autistic (lack of) social engagement takes the form of a dialogue

¹⁹ As opposed to a temper tantrum, a meltdown is commonly understood as an instinctual adaptation to overwhelming stressors resulting in behaviors such as crying, screaming, bolting, aggression, or complete disengagement from the environment (Lipsky, 2011).

²⁰ The notion of autism was first introduced in psychiatric literature by Swiss psychiatrist Eugen Bleuler (1857–1939), who used the term to describe the schizophrenic's detachment from outside reality:

The [...] schizophrenics who have no more contact with the outside world live in a world of their own. They have en-cased themselves with their desires and wishes [...]; they have cut themselves off as much as possible from any contact with the external world. This detachment from reality with the relative and absolute predominance of the inner life, we term autism (Bleuler, 1911/1950, p. 63).

Later, in his pioneering article from 1943, Leo Kanner would extend Bleuler's description to characterize autism in childhood as a case of “extreme aloneness from the very beginning of life” (Kanner, 1943, p. 248) with no response “to anything that comes to them from the outside world” (Kanner, 1943, p. 248). According to Kanner, autistic children display a “basic desire for aloneness and sameness” (Kanner, 1943, p. 249), only “extending cautious feelers into a world in which they have been total strangers from the beginning” (Kanner, 1943, p. 249).

between what goes on around her and what goes on within her.²¹ With Mølbak, we could say that her experience “exists only in the inter-action: in the way subject and object mutually appropriate each and cohere in and through a specific event or gathering” (Mølbak, 2012, p. 211). What Mølbak suggests is to consider a new point of view of a phenomenological psychology. Rather than taking Hanna’s experience as the ultimate starting and end point, we should consider her experience “from the point of view of the ‘middle’ rather than the subject or the object” (Mølbak, 2012, p. 212).

Emmanuel Alloa emphasizes how the concepts coined by Merleau-Ponty in his later work was ultimately meant to describe “what happens around and between things” (Alloa, 2017, p. 59). This would seem a productive starting point for Mølbak’s idea of thinking “from the middle” in phenomenological psychology rather than from an experiencing and sense-constituting subject. In *The Visible and the Invisible* (1968), Merleau-Ponty seeks out the constitutive principle as immanent in the sensible itself rather than in transcendental subjectivity. The notion of the flesh expresses how, even though the world appears to me, I am also of the world. The idea of reversibility establishes how “every relation with being is simultaneously a taking and a being taken” (Merleau-Ponty, 1968, p. 266). Ultimately, the act of seeing, touching, hearing, or feeling is accomplished by reversibility, by also being seen, touched, heard, and felt by the world. What we term ‘subjectivity’ is accomplished in and through the sensibility and the materiality of things. When Merleau-Ponty argues that world and body, object and subject, emerge out of a common fabric, sometimes referred to as the “flesh” (Merleau-Ponty, 1968, p. 147), we can see how his phenomenology invites a certain skepticism about positing such a thing as ‘autistic social experience.’ Thus, Hanna’s experience should be regarded as a form of dialogue with the world and the situation in which she finds herself rather than be ascribed to her as an experiencing subject. With Merleau-Ponty, we could argue that subjectivity (autistic or otherwise) should be understood in and through engagement with the world.

As is pointed out by Merleau-Ponty and carried over in the phenomenological and enactivist discussions of theory of mind, social interaction is a form of intercorporeal blending, where “just as the parts of my body together form a system, the other’s body and my own are a single whole, two sides of a single phenomenon” (Merleau-Ponty, 2012, p. 375).²² However, what we see in the description provided by Hanna is not the fluent

²¹ This analysis of autism closely resembles how Davidson (2003) approaches schizophrenic experience in his phenomenological research on recovery in schizophrenia. One of Davidson’s research participants describes the experience of withdrawing from the world, which Davidson insightfully interprets as a form of active self-protection in the face of a chaotic and intrusive world rather than what psychiatrically could be understood as apathy or lack of motivation. Thus, schizophrenic symptoms and experiences do not really go on ‘inside’ the person but are active forms of ‘becoming ill’ in dialogue with a threatening outside world (Davidson, 2003, p. 153).

²² For previous uses of Merleau-Ponty’s notion of intercorporeality in empirical phenomenological psychological research, see Levi’s (1978) analysis of gestural relating in improvisational dance and Coenen’s (1986) study on deaf children’s embodied interactions.

intercorporeality, which Merleau-Ponty describes as the epitome of the reversibility of the flesh, and in which it is “[...] as if the other person’s intention inhabited my body, or as if my intentions inhabited his body” (Merleau-Ponty, 2012, p. 191). During the interview, Hanna does not describe social interaction more than in a few passing sentences. Rather, her description alerts us to how social engagement is facilitated by a certain relation between foreground and background in sensory experience, and how the absence/presence of the sensory surroundings allows for reciprocal social interaction. Merleau-Ponty emphasizes how experience is always accomplished in concrete and carnal interactions with other bodies and with things in the world, and thus presents a way to avoid tracing social interaction ‘inward’ to an experiencing subject and instead tracing it ‘outward’ to its intrinsic blending with other bodies, material spaces and things.

It could be argued that this way of approaching experience as something, which in the words of Martin Heidegger “is not of our own making” (Heidegger, 1971, p. 57) is already an inherent aspect of the methodological agenda of phenomenological psychology. Englander has recently described the strategy, originally suggested by Giorgi (2009, p. 116), of inviting the interviewee to describe a situation in which the phenomenon of interest has occurred as a way to bring the everyday context of the phenomenon into view (Englander, 2020). Paraphrasing Giorgi, he emphasizes the importance of addressing “the everyday world where people are living through various phenomena in actual situations” (Giorgi, 1985, p. 8 cited in Englander, 2020, p. 64). According to Englander (2012, 2019, 2020), the described situation thus provides a context within which to understand the interviewee’s experience. Englander’s clarification of the methodological rationale in phenomenological interviewing is apt and on point given the recent critical reception this data collection method has received from the philosophical-phenomenological community (Zahavi & Martiny, 2019). Yet, it is pertinent to discuss whether Englander’s notion of context dependence of psychological meaning is strong enough to fully elucidate the phenomenological notion of experience as belonging equally to the subject and the world? In the words of Davidson, it is a matter for the phenomenological psychologist of addressing “what Husserl described as the ‘co-consciousness’ of social and cultural objects, such as stadiums, libraries, or even universities, such as Yale” (Davidson, 2017, pp. 16–17) and of “appreciating that what comes to be viewed as the psychological is always already a socially, culturally, and historically constituted phenomenon” (Davidson, 2017, pp. 16–17).

In the following, I will approach this endeavor in terms of rethinking the typical strategy for data collection in phenomenological research, namely by inviting psychology to engage with ethnographic methods and the phenomenological researcher to engage actively with the spaces in which social encounters take place. The question that I will pursue is: what can be gained from observing and participating in, rather than (or in addition to) talking about the phenomenon of social interaction as described by Merleau-Ponty as situated intercorporeal blending?

Ethnographic Methods and Phenomenological Research

Englander (2020) argues, following Giorgi's (2009, pp. 85–86) original notion of the phenomenologist as participant observer, that participant observation is a necessary interpersonal stance in phenomenological research as a joint exploration of a phenomenon of interest. Although Englander is describing the researcher's empathic participation as an interpersonal attitude²³ *within* the interview situation, his account of what can be gained from a participatory and observational stance is valuable in a broader context. Describing participant observation as the stance from which the researcher can “begin a ‘rough seeing’ of the phenomenon” (Englander, 2020, p. 66), Englander elaborates:

To be a participant observer within the interpersonal context of an interview situation would mean that one could thrust deeper into the world in which the meaning of the phenomenon appears. [...] To strive for depth is to move closer (to use a metaphor) to the meaning of the other's expression in relation to a world and as it comes through within the we-relation, to understand something in a more original way, in the sense of “going back to the matters themselves” (Englander, 2020, p. 66).

Englander's account of the potential of participant observation is an important addition to the usual phenomenological methodological rationales as it describes phenomenological research as a form of involvement in the experiential worlds of others. In addition, Englander's discussion motivates the important question of what the phenomenological researcher can achieve by adopting the stance of participant observer not only in the phenomenological interview, but outside of it?

Participant observation in the context of fieldwork is rarely described as a method for collecting phenomenologically salient data. If anything, the role of fieldwork in phenomenological research is reduced to an initial exploratory context “in which one discovers a phenomenon that could later be explored in an interview situation” (Englander, 2020, p. 65). In this way, phenomenological researchers, such as Davidson (2003) and Desai (2012), build on participant observation and fieldwork without explicitly recognizing it as a means for collecting phenomenological data.

Some exceptions are worth pausing on here. Herman Coenen's (1986) phenomenological study of movement, perception and expression in deaf children's interactions makes highly productive use of ethnographic participant observation in a field where obvious communicational differences pose a challenge for conducting qualitative interviews that rely on verbal exchange. Through his participation in the everyday life of the school and subsequent phenomenological analysis of observational notes, Coenen elucidates the various intercorporeal processes at play between the children as they emerge in various cultural, social, and material contexts (Coenen, 1986). Levi (1978) similarly addresses the phenomenological potential of researcher observation in his dissertation on the coherence of gestures in improvisational dance. In the words of Levi,

²³ For a similar view, see Peter Ashworth's (1995) Schutzian analysis of participation and Davidson's “cross-cultural attitude toward experiences of psychosis” (Davidson, 2003, p. 119).

The researcher must insert him/herself “inside” the perceptual/behavioral interaction to overcome a) the behaviorist’s bias of external observation, and b) the phenomenologist’s bias of articulating the event only within participating individuals [sic] experiences (Levi, 1978, p. 54).

Arguing that various regions of experience can in fact “be studied by the phenomenological psychologist through the observation of behavior” (Levi, 1978, p. 270), Levi argues that “the researcher’s primary mode of access to the event is through his perceptual presence to the event” (Levi, 1978, p. 54).

Thus, even though empirical phenomenological psychologists usually favor the qualitative interview, some important contributions for developing a phenomenological approach to ethnographic data collection have already been underway. Unfortunately, they have not manifested themselves very clearly in the practice of phenomenological psychology. In the following, I will review some approaches to combining phenomenology and ethnographic participant observation that have emerged from outside the field of phenomenological psychology and subsequently discuss their relevance for studying the sensory and material aspects of social experience and practice in autism.

Commonly conceived, ethnographic research explores social reality from the perspectives of the participants in a social group. Typically, the researcher will become part of the everyday practices of the participants over lengthy periods of time and strive to immerse him- or herself in a group’s natural environment (Bryman, 2012). One way ethnography has been exploited for phenomenological purposes is through the ‘life-world-analytical’ approach proposed by Anne Honer and Ronald Hitzler (2015), who argue that exploring the life-worlds of other people requires a methodology that allows for “seeing the world with the eyes of the other person” (Honer & Hitzler, 2015, p. 548). Central to this methodology is the requirement that the researcher engages him- or herself completely and unconditionally in the social context, practices, and worldviews of the participants. By privileging participation over observation, Honer and Hitzler argue that the researcher “actually co-experiences [the research participants’] own meanings (or sense); and that, in this way, he undertakes a (temporary) shift in perspective” (Honer & Hitzler, 2015, p. 549).

The idea that the researcher through his or her co-participation can access the experience of the participants resembles what Ilja Maso (2007) describes as approaching phenomenological ethnography through an act of *destrangement* (as opposed to *estrangement*). In the act of *destrangement*, the ethnographic researcher strives to experience the experiences of others to the point where “[...] the distinction – the distance – between the experiences of herself and those of others [are bracketed]” (Maso, 2007, p. 139). Conversely, in the act of *estrangement*, the researcher refrains from describing the experiential fullness with which phenomena present themselves, thus deliberately making the scene appear strange with the purpose of explicating the taken-for-granted aspects of social and cultural contexts (Maso, 2007, p. 139). For Maso then, phenomenological eth-

nography aims to describe both the experiential fullness of phenomena through the researcher's participant experience and the taken-for-granted aspects of social and cultural contexts.

A crucial element of both Maso's and Honer and Hitzler's accounts of phenomenological ethnography is the important role played by the researcher's own embodied experience during ethnographic research. However, the idea that the ethnographic researcher can gain direct access to the experience of the research participants, as argued particularly by Honer and Hitzler, might be disputed as intersubjectivity does not reveal the other's experience 'in the first person' (Zahavi, 2012, p. 227). This caveat is also highlighted by Susanne Ravn (Ravn, 2017, p. 208), who emphasizes that even though phenomenological research is about gathering rich descriptions of experience, phenomenological data can be gathered in ethnographic studies by shifting between first-, second- and third-person perspectives. In other words, the researcher shifts between his or her own (embodied, sensory, affective) experience during fieldwork, engaging in interpersonal interactions, and observing the practices, movements, and interactions between the research participants.

Engaging with the Social Milieu as a Field of Forces

In light of these various ways of understanding the potential of participant observation, it is compelling to ask how ethnography might reveal phenomenologically salient data. To what exactly does the researcher's participatory experience grant access? And how are we to reconcile the predominant focus on first-person experience in phenomenological research with the second-, and third-person perspectives that are necessarily involved in ethnographic data collection? I propose that Merleau-Ponty's notion of milieu can get us closer to answering these questions. In the following, I will present an excerpt from my observations during fieldwork in social groups for adolescents and young adults with autism and discuss how participant observation allows the researcher to experience and describe the social and sensory milieus in and through which social interaction arises. This particular excerpt is a condensed version of a field note describing an autistic women's group on a day trip to a museum of rock music in Roskilde, Denmark.

Spinning on the LP Record

When the elevator doors open, we enter a large room full of colors with walls covered in mirrors in different sizes and shapes. The walls are leaning like in a typical funhouse in an amusement park, and it makes the colorful lights shoot back and forth across the room in different directions. As we proceed somewhat cautiously to explore the many display cases in the exhibition, we are suddenly startled by several loud screams that cut through the air. My heart jumps and I look up to see the widened eyes of Ina, Eva and Johanne. The screams continue undeterred, apparently emanating from an interactive part of the exhibition in the adjacent room. We try to ignore the screams and walk a bit anxiously further into the exhibition, which now takes us through darker and narrower corridors. The room feels labyrinth-like, and music, lights, mirrors, and screams surround us. We do not say much to each other, and it seems that everyone is a bit overwhelmed by all the impressions around us. After a while, I notice that Eva is sitting down on a platform,

crouched together and covering her ears with her hands. She has her head bent down and her legs drawn up, so I can only see her hair and her hands, which grasp her head tensely. I bend down and ask her if she is okay, but she does not react or seem to hear me. One of the employees in the group notices too, and kneels down beside her. They both get up and disappear down one of the many corridors in the museum. After we have spent around an hour's time looking around, we descend a flight of stairs to what turns out to be the last part of the exhibition. We find ourselves in a room with a huge, slowly rotating LP record in the center of the floor. The LP record is elevated and almost five meters wide and on top of it, people are lying flat down on their stomachs. I notice Eva, Lene, and Ina there, moving around slowly but steadily. They are facing inward towards each other, heads supported by their hands. There are also some kids and teenagers there that we do not know, and Eva is talking quietly and casually with one of them, but I cannot hear about what. Emma and I join the others and lie down with our heads facing inward, toward the center of the circle. Lying there, I notice that there are sounds emanating from the LP. The sounds are difficult to decipher, it is not really music, but not random sounds either. The sound is extremely slow, almost hypnotic, and it is difficult to distinguish if the sounds are instruments, voices, or merely noise. It is almost as if the sounds are waves flowing, merging and separating. As the LP is rotating slowly, but firmly, I feel my body rotating with it. It is a weird, but calming sensation, lying still yet moving. The girls are talking cheerfully but calmly, and it takes me a while to realize that they are discussing what song is playing. We lie still and listen together for a while, and it is like not only the music, but everything has slowed down. Eva smiles. "This is a great sensory reset", she says. We feel the slow rotations of the LP record and chat a bit more about the music playing.

The field note above describes how Eva reacts to a noisy and visually intense environment at the museum and what subsequently arises as a social situation between the women in the autism group on the rotating LP record. By deliberately attending to the sensory surroundings in the rock museum installations, I have described how social encounters not only take place in, but also happen in virtue of a sensory space. Social encounters do not happen in a vacuum, but in and through an abundance of things. In the situation described above, it is almost as if the screams, lights, colors, and mirrors dismantle or shatter the group, whereas the LP record seemed to carry or enfold a sense of togetherness. Thus, the LP record becomes more than a museum installation. It becomes a "sensory reset" that returns the bodies that are rotating on it to a shared space. Almost like a stim toy,²⁴ it helps to manage overwhelming and stressful sensory surroundings by refocusing attention to one's own body in motion. Just as the LP record becomes more than wood, plastic, paint, and sound and incorporates itself in a social space, the women on top of it are now talking to strangers and amongst themselves, casually resting their chins in their hands. There is a lightness to their conversation, it feels unburdened, borne

²⁴ Stim toys are toys to assist the practice of stimming, short for the varieties of self-stimulating behaviors often seen in autism (e.g., hand flapping, finger flicking, rocking, spinning, or pacing) that are often depicted in autism research as something to be eliminated and treated (Boyd et al., 2012). In recent years, the rapid growth of stim toys like chewable jewelry, spinner rings, fidget toys, etc., bear witness to an increasing re-appropriation of these behaviors by individuals identifying as autistic.

by the gentle movements of the LP record. The women enable the LP to become part of a social space, and the LP enables them to become social in a particular way.

Thus, what the observational note descriptively targets is not Eva's experience as such, but the things, atmospheres, spaces, bodies and movements in and through which her experience emerges. Such description enables a further clarification and enrichment of Mølbak's ambition of 'thinking through the middle'. The LP and the women's moving bodies together form a particular environment and unfold a social potential particular to their spatiotemporal situation. I want to suggest that Merleau-Ponty's notion of milieu enables us to look at social interaction not only as essentially embodied, but also material and situational. Merleau-Ponty has famously stated that "having a body means being united with a definite milieu, merging with certain projects, and being perpetually engaged therein" (Merleau-Ponty, 2012, p. 84). To have a body means to be engaged in a milieu, but the relation between body and milieu is not one of containment or encirclement, as Alloa (2017, p. 26) rightly emphasizes, thus contrasting Merleau-Ponty's notion of the world with Heidegger's notion of *Umwelt*. The milieu is rather, as Merleau-Ponty describes below, a field of forces with which the body is in continuous exchange:

From what we have just seen, we must grant the descriptive originality of the behavioral setting and of behavior itself in relation to "geographical" infrastructures. Such a perspective defines a certain psychological field, in a double sense. It is first of all a notion like that introduced by physicists (such as the Newtonian theory of gravity). This is the gravitational field that is responsible for the local phenomena of gravity. We use this comparison to develop a notion of the psychological field as a milieu of relations of forces, tensions, and reactions, thus permitting us to comprehend human conduct. No individual relation between stimulus and response exists; instead this relation necessarily occurs within a milieu: a field of forces (Merleau-Ponty, 2010, p. 346).

Here, Merleau-Ponty draws on Gestalt psychologist Kurt Lewin's notion of psychological field as a relation between a body and a geographical, spatial structure. This relation is what can be characterized as a milieu; a field of pulling, resisting, drawing, and thrusting between body and world. Thus, the milieu is not merely a material space that contains bodies but a field of potentiality within which body and world emerge. For Merleau-Ponty, this implies that the body also finds itself as part of the fabric of the world that envelops it rather than merely being the means for it to appear. When Merleau-Ponty argues (1968, p. 140) that "there is a relation of the visible with itself that traverses me and constitutes me as a seer", it means that the sensing body is also constituted by the dense, opaque, and sensible world. Thus, rather than basing his ontology solely on the structure of the body as the means to open a milieu of potentiality, Merleau-Ponty emphasizes the constitutive nature of the flesh of things. Alloa (2017, p. 86) argues that Merleau-Ponty in his late writings develops an ontology that is increasingly material. However, already in *The World of Perception* (2004), Merleau-Ponty points to a peculiar space between individual action and material setting, between subjectivity and things:

My interlocutor gets angry and I notice that he is expressing his anger by speaking aggressively, by gesticulating and shouting. But where is this anger? [...] None of this takes place in some otherworldly realm, in some shrine located beyond the body of the angry man. It really is here, in this room and in this part of the room, that the anger breaks forth. It is in the space between him and me that it unfolds (Merleau-Ponty, 2004, pp. 83–84).

Here, Merleau-Ponty describes an instance of social interaction and asks where the related social emotions and expressions take place. As we have seen, the answer within mainstream autism research is to locate the crux of social interaction in the cognitive system of the autistic person. Instead, Merleau-Ponty asks us to consider the space between bodies and how a social milieu opens up between interacting bodies and material things. In the example I have presented above, the ethnographer is invited to attend, not only to what individual people say and do, but also to the fullness of sounds, smells, colors, and lights, the movements between things and bodies, and the atmosphere, tensions, openings, and contractions. With Merleau-Ponty, we find an attention to the fields in and through which bodies interact. From this perspective, the rotating LP or the screams from the interactive installation are not merely around or beside the social interactions in the autism group; they are inseparably entangled with the social situation in question.

Discussion

We can now elaborate on Honer and Hitzler's (2015), Maso's (2007) and Ravn's (2017) emphasis on the key role played by the ethnographer's first-person experience during ethnographic fieldwork. Even though we could say with Mølbak (2012) and Merleau-Ponty (1968) that social experiences emerge in the encounter with something or someone other, it is still necessary to pass through subjective experience in order to reveal the quality of this happening. In ethnographic fieldwork as a method of collecting phenomenologically salient data, the experience through which we must pass is the participant researcher's. In order to describe the complex interactions between bodies in particular social and sensory milieus, these forms of intercorporeal and material blending must be sensed, felt, and experienced. As is commonly recognized in ethnographic research, the participant observer is him- or herself "the research instrument par excellence" (Hammersley & Atkinson, 2007, p. 17). Thus, the researcher's body is itself the crucial sensory, affective, and experiential organ with which to open descriptions of social interaction.

It is important to note that this embodied presence on the part of the participant researcher must be understood as embodied engagement. Phenomenological description in the discipline of ethnographic research cannot be performed from a distance. In other words, the researcher's first-person perspective cannot stand alone, but draws its validity from continuous second-person embodied and situated engagement between researcher and participants. This invites us to reconsider the qualitative interview once again. As is emphasized by Høffding and Martiny (2016, p. 541), further argued by Giorgi (2009) and

recently discussed by Englander (2020), the first-person descriptions of experience collected in the phenomenological interview are facilitated by second-person engagement between interviewer and interviewee.²⁵ In this way, first-person descriptions are in part results of an interactive co-generation of meaning pertaining to the interview situation itself; a form of interaction that “strongly affects both the discursive and the tacit knowledge generation process” (Høffding & Martiny, 2016, p. 542).

Ultimately, these considerations imply that phenomenological research is not only about first-person experience, but in an important sense also about second person engagement. Recently, the role of the second person perspective has gained considerable attention within the phenomenological research community and as is becoming increasingly evident, it is impossible to disentangle subjectivity from intersubjectivity (Szanto & Moran, 2016; Zahavi, 2001, 2019b). In other words, experience is always already intersubjective and worldly, and thus, “the three regions ‘self’, ‘others’, and ‘world’ belong together; they reciprocally illuminate one another, and can only be understood in their interconnection” (Zahavi, 2001, p. 166). This has important consequences for autism research. If we want to consolidate autism research with phenomenological perspectives on sociality, the most important step is perhaps to realize that social interaction in autism should be studied on the same premises as any form of sociality: namely by attending to its sensory and bodily dimension and entanglement with things and spaces.

In conclusion, I have argued that it is relevant and necessary to discuss how phenomenological philosophy can contribute to empirical methodology in autism research and urged a reconsideration of how the qualitative interview and participant observation might yield phenomenologically salient data. I have argued for restraining the idea that the qualitative interview yields an unproblematic account of experience and proposed increased attention to how experience is accomplished in encounters with alterity by tracing experience ‘outwards’ rather than ‘inwards’. Furthermore, I have argued that ethnographic methods provide a promising addition to the methodological reservoir of phenomenological research by facilitating attention to the social-spatial-temporal fields in and through which bodies interact. In short, I have presented a way to think about phenomenological methodology that captures aspects of sociality that are necessary in order to rethink social interaction in autism in terms of its dynamic relation to the body, sensory experience and material entanglements. In this way, we can perhaps avoid the kinds of unilateral explanations often seen in autism research, where breakdowns or disruptions of reciprocal social engagement are traced back to the autistic party in the interaction. By attending to the sensory and material environment as part of social interactions, we can begin to understand social behaviors in autism as forms of dialogue with the world rather than as results of a failed social competence ascribable to the individual.

²⁵ Such interpersonal dynamics between interviewer and interviewee are broadly recognized in qualitative research methodology in the form of the “inevitable power plays inherent in qualitative research” (Brinkmann & Kvale, 2017, p. 273), thus indicating the important ethical dimension of all qualitative inquiry.

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References

- Alloa, E. (2017). *Resistance of the Sensible World. An Introduction to Merleau-Ponty*. New York, NY: Fordham University Press.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders*. Arlington, VA: American Psychiatric Publishing.
- Asperger, H. (1991). "Autistic psychopathy" in childhood. In U. Frith (Ed.), *Autism and Asperger Syndrome* (pp. 37–92). Cambridge, MA: Cambridge University Press.
- Baron-Cohen, S. (1995). *Mindblindness. An essay on autism and theory of mind*. Cambridge, Massachusetts: The MIT Press.
- Baron-Cohen, S. (2001). Theory of Mind in Normal Development and Autism. *Prisme*, 34(August), 174–183.
- Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a "Theory of Mind"? *Cognition*, 21, 37–46.
- Bevan, M. T. (2014). A Method of Phenomenological Interviewing. *Qualitative Health Research*, 24(1), 136–144.
- Bleuler, E. (1950). *Dementia praecox or the group of schizophrenias*. Oxford, England: International Universities Press.
- Bowler, D. (2007). *Autism spectrum disorders: psychological theory and research*. John Wiley & Sons.
- Boyd, B. A., McDonough, S. G., & Bodfish, J. W. (2012). Evidence-Based Behavioral Interventions for Repetitive Behaviors in Autism. *Journal of Autism and Developmental Disorders*, 42(6), 1236–1248.
- Brinkmann, S., & Kvale, S. (2017). Ethics in Qualitative Psychological Research. In C. Willig & W. S. Rogers (Eds.), *The SAGE Handbook of Qualitative Research in Psychology*. London: SAGE Publications Ltd.
- Bryman, A. (2012). *Social Research Methods*. New York, NY: Oxford University Press.
- Carruthers, P., & Smith, P. K. (1996). *Theories of Theories of Mind*. Cambridge: Cambridge University Press.
- Coenen, H. (1986). Improvised Contexts: Movement, Perception and Expression in Deaf Children's Interactions. *Journal of Phenomenological Psychology*, 17(1), 1–31.
- Dant, T. (2014). In two minds: Theory of Mind, intersubjectivity, and autism. *Theory & Psychology*, 25(1), 45–62.
- Danziger, K. (1985). The Methodological Imperative in Psychology. *Philosophy of the Social Sciences*, 15(1), 1–13.

- Davidson, L. (1988). Husserl's refutation of psychologism and the possibility of a phenomenological psychology. *Journal of Phenomenological Psychology*. United Kingdom: Brill Academic Publishers.
- Davidson, L. (1992). Developing an Empirical-Phenomenological Approach to Schizophrenia Research. *Journal of Phenomenological Psychology*, 23(1).
- Davidson, L. (1994). Phenomenological Research in Schizophrenia: From Philosophical-Anthropology to Empirical Science. *Journal of Phenomenological Psychology*, 25(1), 104–130.
- Davidson, L. (2003). *Living Outside Mental Illness: Qualitative Studies of Recovery in Schizophrenia*. New York, NY, US: New York University Press.
- Davidson, L. (2017). Transcendental Intersubjectivity as the Foundation for a Phenomenological Social Psychiatry. In M. Englander (Ed.), *Phenomenology and the Social Context of Psychiatry: Social Relations, Psychopathology, and Husserl's Philosophy* (pp. 7–26). London: Bloomsbury Academic.
- Davidson, L. (2021). *Overcoming Psychologism: Husserl and the Transcendental Reform of Psychology*. Springer Nature.
- Davidson, L., & Cosgrove, L. A. (1991). Psychologism and phenomenological psychology revisited: I. The liberation from naturalism. *Journal of Phenomenological Psychology*. United Kingdom: Brill Academic Publishers.
- Davidson, L., & Cosgrove, L. (2002). Psychologism and Phenomenological Psychology Revisited, Part II: The Return to Positivity. *Journal of Phenomenological Psychology*, 33, 141–177.
- De Jaegher, H. (2013). Embodiment and sense-making in autism. *Frontiers in Integrative Neuroscience*, 7, 15.
- Desai, M., Divan, G., Wertz, F., & Patel, V. (2012). The discovery of autism: Indian parents' experiences of caring for their child with an autism spectrum disorder. *Transcultural Psychiatry*, 49(3), 613–637.
- Englander, M. (2007). Persistent Psychological Meaning of Early Emotional Memories. *Journal of Phenomenological Psychology*, 38, 181–216.
- Englander, M. (2012). The Interview: Data Collection in Descriptive Phenomenological Human Scientific Research. *Journal of Phenomenological Psychology*, 43(1).
- Englander, M. (2016). The phenomenological method in qualitative psychology and psychiatry. *International Journal of Qualitative Studies on Health and Well-Being*, 11.
- Englander, M. (2019). General knowledge claims in qualitative research. *The Humanistic Psychologist*, 47(1), 1–14.
- Englander, M. (2020). Phenomenological psychological interviewing. *The Humanistic Psychologist*, 48(1), 54–73.
- Fantasia, V., De Jaegher, H., & Fasulo, A. (2014). We can work it out: an enactive look at cooperation. *Frontiers in Psychology*, 5.
- Finlay, L. (2009). Debating Phenomenological Research Methods. *Phenomenology & Practice*, 3(1), 6–25.

- Finlay, L. (2013). Unfolding the Phenomenological Research Process: Iterative Stages of “Seeing Afresh.” *Journal of Humanistic Psychology*, 53(2), 172–201.
- Fuchs, T. (2015). Pathologies of Intersubjectivity in Autism and Schizophrenia. *Journal of Consciousness Studies*, 22(1), 191–214.
- Fuchs, T., & De Jaegher, H. (2009). Enactive intersubjectivity: Participatory sensemaking and mutual incorporation. *Phenomenology and the Cognitive Sciences*, 8(4), 465–486.
- Gallagher, S. (2012). In Defense of Phenomenological Approaches to Social Cognition: Interacting with the Critics. *Review of Philosophy and Psychology*, 3(2), 187–212.
- Gallagher, S. (2013). Intersubjectivity and psychopathology. In B. Fulford, M. Davies, B. Graham, J. Sadler, & G. Stanghellini (Eds.), *International perspectives in philosophy and psychiatry. Oxford handbook of philosophy and psychiatry* (pp. 258–274). Oxford: Oxford University Press.
- Gallagher, S., & Sørensen, J. B. (2006). Experimenting with phenomenology. *Consciousness and Cognition*, 15(1).
- Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice-Hall.
- Giorgi, A. (1970). *Psychology as a human science: A phenomenologically based approach. Psychology as a Human Science: A Phenomenologically Based Approach*. Oxford, England: Harper & Row.
- Giorgi, A. (1971). Phenomenology and Experimental Psychology. *Duquesne Studies in Phenomenological Psychology*, 1.
- Giorgi, A. (1985). *Phenomenology and psychological research*. Pittsburgh, PA; Atlantic Highlands, NJ: Duquesne University Press; Distributed by Humanities Press.
- Giorgi, A. (1997). The Theory, Practice, and Evaluation of the Phenomenological Method as a Qualitative Research Procedure. *Journal of Phenomenological Psychology*, 28(2), 235–260.
- Giorgi, A. (2009). *The descriptive phenomenological method in psychology: a modified Husserlian approach*. Pittsburgh, Pennsylvania: Duquesne University Press.
- Giorgi, A., & Giorgi, B. (2008). Phenomenological Psychology. In C. Willig & W. Stainton-Rogers (eds.), *The SAGE Handbook of Qualitative Research in Psychology*. London: SAGE Publications Ltd.
- Giorgi, A., Giorgi, B., & Morley, J. (2017). The Descriptive Phenomenological Psychological Method. In C. Willig & W. S. Rogers (Eds.), *The SAGE Handbook of Qualitative Research in Psychology* (pp. 176–192). Thousand Oaks, CA: SAGE Publications Ltd.
- Goldman, A. (2006). *Simulating Minds: The Philosophy, Psychology, and Neuroscience of Mindreading*. Oxford: Oxford University Press.
- Gopnik, A., & Meltzoff, A. N. (1997). *Words, Thoughts, and Theories*. Cambridge, MA: MIT Press.
- Gordon, R. M. (1986). Folk Psychology as Simulation. *Mind & Language*.
- Hammersley, M., & Atkinson, P. (2007). *Ethnography. Principles in Practice*. New York, NY: Routledge.

- Happe, F., & Frith, U. (2006). The weak coherence account: Detail-focused cognitive style in autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 36(1), 5–25.
- Heidegger, M. (1971). *On the Way to Language*. Harper & Row.
- Høffding, S., & Martiny, K. (2016). Framing a phenomenological interview: what, why and how. *Phenomenology and the Cognitive Sciences*, 15, 539–564.
- Holzkamp, K. (1983). *Grundlegung der Psychologie*. Campus.
- Honer, A., & Hitzler, R. (2015). Life-World-Analytical Ethnography: A Phenomenology-Based Research Approach. *Journal of Contemporary Ethnography*, 44(5), 544–562.
- Husserl, E. (1977). *Phenomenological Psychology: Lectures, Summer Semester, 1925*. The Hague: Martinus Nijhoff Publishers.
- Husserl, E. (1983). *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy: First Book: General Introduction to a Pure Phenomenology*. Springer Netherlands.
- Huws, J. C., & Jones, R. S. P. (2015). “I’m really glad this is developmental”: Autism and social comparisons – An interpretative phenomenological analysis. *Autism*, 19, 84–90.
- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217–250.
- Langdrige, D. (2007). *Phenomenological psychology. Theory, Research and Method*. Harlow: Pearson Education Limited.
- Leslie, A. M., Friedman, O., & German, T. P. (2004). Core mechanisms in ‘theory of mind.’ *Trends in Cognitive Sciences*, 8(12), 528–533.
- Leudar, I., & Costall, A. (2009). Introduction: Against ‘Theory of Mind.’ In I. Leudar & A. Costall (Eds.), *Against Theory of Mind* (pp. 1–16). London: Palgrave Macmillan UK.
- Levi, B. (1978). *The Coherence of Gestures in Improvisational Dance: An Empirical Exploratory Study Informed by Merleau-Ponty’s Phenomenological Ontology*. Duquesne University.
- Lipsky, D. (2011). *From Anxiety to Meltdown How Individuals on the Autism Spectrum Deal with Anxiety, Experience Meltdowns, Manifest Tantrums, and How You Can Intervene Effectively*. London and Philadelphia: Jessica Kingsley Publishers.
- Maso, I. (2007). Phenomenology and Ethnography. In P. Atkinson, A. Coffey, S. Delamont, J. Lofland, & L. Lofland (Eds.), *Handbook of Ethnography* (pp. 136–144). London: SAGE Publications.
- Merleau-Ponty, M. (1968). *The Visible and the Invisible*. (C. Lefort, Ed., A. Lingis, Trans.). Evanston, IL: Northwestern University Press.
- Merleau-Ponty, M. (2004). *The World of Perception*. London: Routledge.
- Merleau-Ponty, M. (2010). *Child Psychology and Pedagogy: The Sorbonne Lectures 1949–1952*. Northwestern University Press.
- Merleau-Ponty, M. (2012). *Phenomenology of Perception*. (D. Landes, Trans.). Oxon-New York: Routledge.

- Mølbak, R. L. (2012). From a Phenomenology of the Subject to a Phenomenology of the Event: Reconstructing the Ontological Basis for a Phenomenological Psychology. *Journal of Phenomenological Psychology*, 43(2).
- Morley, J. (1998). The private theater: A phenomenological investigation of daydreaming. *Journal of Phenomenological Psychology*. United Kingdom: Brill Academic Publishers.
- Morley, J. (2010). It's Always About the Epoché. *Les Collectifs Du Cîrçp*, 1, 223–232.
- Morley, J. (2019). Response to Dan Zahavi and Kristian Moltke Martiny on Applied Phenomenology in Nursing Studies. *International Journal of Nursing Studies*, 93, 163–167.
- Neisser, U. (1976). *Cognition and reality: principles and implications of cognitive psychology*. San Francisco: W. H. Freeman.
- Newell, A., Shaw, J. C., & Simon, H. A. (1958). *Elements of a theory of human problem solving*. *Psychological Review*. US: American Psychological Association.
- Newen, A., De Bruin, L., & Gallagher, S. (2018). 4E Cognition. Historical Roots, Key Concepts, and Central Issues. In A. Newen, L. De Bruin, & S. Gallagher (Eds.), *The Oxford Handbook of 4E Cognition*. Oxford: Oxford University Press.
- Newman, C., Cashin, A., & Waters, C. D. (2010). A modified hermeneutic phenomenological approach toward individuals who have autism. *Research in Nursing and Health*, 33(3), 265–271.
- Ozonoff, S., Pennington, B. F., & Rogers, S. J. (1991). Executive function deficits in high-functioning autistic individuals: Relationship to theory of mind. *The Journal of Child Psychology and Psychiatry*, 32(7), 1081–1105.
- Pennington, B. F., & Ozonoff, S. (1996). *Executive functions and developmental psychopathology*. *Child Psychology & Psychiatry & Allied Disciplines*. Netherlands: Elsevier Science.
- Petitmengin, C. (2006). Describing one's subjective experience in the second person: An interview method for the science of consciousness. *Phenomenology and the Cognitive Sciences*, 5(3–4), 229–269.
- Ravn, S. (2017). Phenomenological analysis and sport and exercise. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (pp. 206–218). London-New York: Routledge.
- Scholl, B. J., & Leslie, A. M. (1999). Modularity, development and “theory of mind.” *Mind & Language*, 15(4), 435–455.
- Schutz, A. (1967). *The phenomenology of the social world*. Evanston, Ill.: Northwestern University Press.
- Smith, D. L. (2010). A History of Amedeo P. Giorgi's Contributions to the Psychology Department and Phenomenology Center of Duquesne University in his Twenty-Four Years There. *Les Collectifs Du Cîrçp*, 1, 249–265.
- Smith, J. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research*. Sage Publications.
- Szanto, T., & Moran, D. (2016). Phenomenological Discoveries Concerning the “We”: Mapping the Terrain. In T. Szanto & D. Moran (Eds.), *Phenomenology of Sociality. Discovering the “We.”* New York, NY: Routledge.

- Throop, C. J. (2018). Being open to the world. *HAU: Journal of Ethnographic Theory*, 8(1–2), 197–210.
- Van den Berg, J. H. (1972). *A different existence; principles of phenomenological psychopathology*. Pittsburgh: Duquesne University Press.
- Van Lennep, D. J. (1987). The Psychology of Driving a Car. In *Phenomenological Psychology. Phaenomenologica* (Collection Fondée par H. L. van Breda et Publiée sous le Patronage des Centres D'Archives-Husserl), vol 103 (pp. 217–227). Springer, Dordrecht.
- Wertz, F. (1985). Methods and Findings in an Empirical Analysis of 'Being Criminally Victimized'. In A. Giorgi (Ed.), *Phenomenology and Psychological Research* (pp. 155–216). Pittsburgh, PA: Duquesne University Press.
- Wertz, F. (1987). Cognitive psychology and the understanding of perception. *Journal of Phenomenological Psychology*, 18(1–2), 103–142.
- Wertz, F. (2016). Outline of the Relationship Among Transcendental Phenomenology, Phenomenological Psychology, and the Sciences of Persons. *Schutzian Research*, 8, 139–162.
- Wertz, F., Charmaz, K., McMullen, L. M., Josselson, R., Anderson, R., & McSpadden, E. (2011). *Five ways of doing qualitative analysis: phenomenological psychology, grounded theory, discourse analysis, narrative research, and intuitive inquiry*. New York: Guilford Press.
- Wertz, F., Desai, M., Maynard, E., Misurell, J., Morrissey, M. B., Rotter, B., & Skoufalos, N. (2017). Research Methods for Person-Centred Health Science: Fordham Studies of Suffering and Transcendence. In M. Englander (Ed.), *Phenomenology and the Social Context of Psychiatry: Social Relations, Psychopathology, and Husserl's Philosophy* (pp. 95–120). London: Bloomsbury Academic.
- Williams, E. (2004). Who Really Needs a 'Theory' of Mind? An Interpretative Phenomenological Analysis of the Autobiographical Writings of Ten High-Functioning Individuals with an Autism Spectrum Disorder. *Theory & Psychology*, 14(5), 704–724.
- Wimmer, H., & Perner, J. (1983). Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception. *Cognition*, 13(1), 103–128.
- World Health Organization. (2018). *International statistical classification of diseases and related health problems (11th Revision)*. Geneva: World Health Organisation.
- Zahavi, D. (2001). Beyond empathy: Phenomenological Approaches to Intersubjectivity. *Journal of Consciousness Studies*, 8(5–7), 151–167.
- Zahavi, D. (2003). *Husserl's Phenomenology*. Stanford, CA: Stanford University Press.
- Zahavi, D. (2005). *Subjectivity and Selfhood – Investigating the First Person Perspective*. Cambridge, MA: The MIT Press.
- Zahavi, D. (2012). Empathy and mirroring: Husserl and Gallese. In R. Breuer & U. Melle (Eds.), *Life, Subjectivity & Art. Phaenomenologica* (Published Under the Auspices of the Husserl-Archives), vol 201. Dordrecht: Springer.
- Zahavi, D. (2018). *Phenomenology: The Basics*. London, UK: Routledge.

- Zahavi, D. (2019a). Applied phenomenology: why it is safe to ignore the epoché. *Continental Philosophy Review*.
- Zahavi, D. (2019b). Second-Person Engagement, Self-Alienation, and Group-Identification. *Topoi*, 38(1), 251–260.
- Zahavi, D., & Martiny, K. (2019). Phenomenology in Nursing Studies: New perspectives. *International Journal of Nursing Studies*, 93.
- Zahavi, D., & Parnas, J. (2003). Conceptual Problems in Infantile Autism Research: Why Cognitive Science Needs Phenomenology. *Journal of Consciousness Studies*, 10(9–10), 53–71.
- Zukauskas, P. R., Siltan, N., & Assumpção, F. B. (2009). Temporality and Asperger's syndrome. *Journal of Phenomenological Psychology*, 40, 85–106.

Chapter 5

The sensory dimension
of autistic social experience

Introduction

The article presented in this chapter, “Autism and the sensory disruption of social experience” (Boldsen, 2022a) deals with the diverse sensory dimensions of social experience in autism. It is based on qualitative interviews with autistic adolescents and young adults conducted as part of fieldwork in the social groups in which they participated. The interviews aimed to elucidate general features of the participants’ experiences of social encounters, which means that the experiential descriptions analyzed in the article primarily concern social situations outside of the social groups. Thus, the article aims to provide a phenomenological account of how social experience in autism is structured through the different modalities of sensory experience and how this structure conditions and regulates possibilities for social interaction. Although this article presents analyses I embarked upon toward the end of fieldwork, it has played a vital role in developing my understanding of the social practices between group participants. Focusing on the sensory structures of autistic social experiences allowed a different understanding of the role of materiality in these practices and thus presented an important intersection between social experience and practice in autism.

The phenomenological account of autism proposed in this article is based on how social encounters are experienced from a first-person perspective by autistic individuals. This touches on the marginalized role that first-person accounts have historically played in autism research. Although interest in autism experiences is on the rise – already in 2009, Ian Hacking spoke of the emerging popularity of so-called “inside” views of autism (Hacking, 2009) – such accounts have rarely played a formative role in developing scientific theories and hypotheses. This article sets out from the assumption that autistic experiences contain invaluable insights for understanding the core features of autism. Here, the sensory structure of social experience provides insight into understanding crucial aspects of social difficulties and practices in autism.

In this article, I study the relationship between perception and intersubjectivity, which has been fundamental for phenomenological analyses of social understanding and interaction since Edmund Husserl. Phenomenological accounts of intersubjectivity are generally based on the idea that the “inner” states of others (emotions, intentions, etc.) are immediately available in perceptual experience due to the embodied nature of the mind. This account starkly contrasts with the cognitive framework driving prevailing accounts of autism, where social understanding is based on higher-order cognitive processes. The analyses in this article engage with the phenomenological approach to intersubjectivity and draw on central concepts and analyses concerning the role of perception and embodiment in this regard. Yet, this study also expands the scope of such a phenomenological framework by studying how particular styles of perceiving may disrupt the immediacy and intuitiveness of social experience and sense of familiarity with others. This importantly enables reflection on how a sense of social connectedness may be mediated and facilitated by actively and reflectively seeking out social and perceptual meaning.

Following this latter point, the article sheds light on the role of compensatory strategies in autism, often described either as cognitive strategies that make up for theory of mind deficits or as adaptive strategies for functioning in neurotypical contexts. This study considers how autistic experiences of social encounters reveal ways of meaningfully responding to a social world that is often experienced as uninhabitable, chaotic, oppressive, and unpredictable. This motivates further analysis of how social connectedness may be supported and facilitated, taking autistic ways of navigating the world as the basis.

Article 3

Autism and the sensory disruption of social experience

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Abstract

Autism research has recently witnessed an embodied turn. In response to the cognitivist approaches dominating the field, phenomenological scholars have suggested a reconceptualization of autism as a disorder of embodied intersubjectivity. Part of this interest in autistic embodiment concerns the role of sensory differences, which have recently been added to the diagnostic criteria of autism. While research suggests that sensory differences are implicated in a wide array of autistic social difficulties, it has not yet been explored how sensory and social experience in autism relate on a phenomenological level. Given the importance of the sensory dimension of social encounters in phenomenological analyses of autism, this question must be considered crucial. This article investigates the role played by sensory differences in autistic social experience. Through a phenomenological analysis informed primarily by the philosophy of Maurice Merleau-Ponty with particular emphasis on the relation between intersubjectivity and perception, I argue that sensory differences affect the way other people appear in autistic experience on a pre-reflective level. By drawing on autistic young adults' experiential descriptions of social encounters, this article identifies three aspects of how sensory differences affect social experiences in autism. First, social encounters manifested as sensorially disturbing, chaotic, and unpredictable events. Second, the embodied expressions of others appeared unfamiliar, threatening, and promoted a sense of detachment from the social world. Third, deliberate practices were employed to actively seek perceptual and social meaning in these disorienting social encounters. This analysis stresses the importance of understanding embodied intersubjectivity through its sensory dimensions. In addition, it indicates an important avenue for future research in exploring the potential role of practice in maintaining an intuitive grip on social meaning. By approaching social encounters as sensory and perceptual events, I emphasize how social difficulties in autism are inherently world-involving phenomena rather than a cognitive deficit reducible to the autistic person.

Keywords: Autism, phenomenology, qualitative research, sensory experience, social interaction, embodiment.

Introduction

Autism is a developmental disorder characterized by pervasive difficulties with social communication and interaction and restricted, repetitive interests and behaviors (Kanner, 1943; Asperger, 1991; American Psychiatric Association, 2013; World Health Organization, 2018). Since the 1980s, the paradigm of theory of mind has retained a dominant position in autism research and described social difficulties in autism as results of a failed maturation of the cognitive system arguably responsible for our ability to infer the mental states of others (Baron-Cohen, Leslie and Frith, 1985). Apart from the theory of mind hypothesis, major theories of autism include the executive dysfunction theory, according to which autistic persons have a weakened ability to manage their own cognitive processes (Ozonoff et al., 1991), and the weak central coherence theory, that focuses on a detail-oriented processing style as compromising the ability of autistic persons to process global and contextual information (Happé & Frith, 2006). Despite their differences, these major theories represent an approach to autism focused on cognitive functioning. One prominent idea in the theory of mind literature is that autistic persons lack access not only to others' but also to their own mental states (Frith & Happe, 1999). Following such a framework, it makes little sense to explore subjective experience in autism, and, as has been argued, autism research has historically not paid much attention to and even discredited autistic accounts of their own experiences (Botha, 2021; McGeer, 2005; Milton, 2014b). The starting point of this article is the assumption that the most important source of knowledge about autism is the experiences and perspectives of autistic persons²⁶ For years, autistic persons have been pushing for an acknowledgment and understanding of sensory and bodily aspects of autism, which have been neglected in a paradigm where the cognitive machinery is assumed to constitute the essence of autism (see Leong, 2016; Milton, 2014; Walker, 2019).²⁷

Based on a recognition of subjectivity and embodiment in autism, emerging phenomenological approaches have also objected to the predominantly cognitive paradigm in autism research and suggested a reconceptualization of autism as a disorder of embodied intersubjectivity rather than higher-order cognitive processes (Gallagher, 2004; Zahavi, 2005; Fuchs, 2015; Krueger, 2021). As argued by Thomas Fuchs, "what autistic children

²⁶ Part of this starting point is also embracing identity-first language to acknowledge how autism is increasingly being understood by those diagnosed with autism as an integral part of one's identity and being rather than reproducing problematic assumptions of autism as a curable disease or error to be corrected (Botha et al., 2021; Vivanti, 2020). Although person-first language usually intends to emphasize the value and humanity of the person, in the autism community and disability movement, it is often taken to imply that "autism is entirely separate from what gives him or her value and worth," and ultimately that "it would have been better if he or she had been born typical" (Brown, 2011).

²⁷ One aspect of this push for recognition is the autism community's movement toward the reappropriation of autistic bodily expressions, such as repetitive movements and self-stimulatory behaviors ("stimming"), which historically have been depicted from a behaviorist perspective as something to be eliminated (Boyd et al., 2012).

primarily lack is not a theoretical concept of other minds but a primary *sensus communis* or a sense of bodily being-with-others” (Fuchs, 2015, p. 198). Indeed, autism research has witnessed an embodied turn, partially precipitated by a growing body of empirical research demonstrating the role of pervasive sensorimotor differences in the development and manifestation of autism (Hobson, 2002; Fournier et al., 2010; Donnellan, Hill and Leary, 2013; Eigsti, 2013; Robertson and Baron-Cohen, 2017).²⁸

Part of this increased orientation toward bodily processes in autism is a renewed interest in sensory differences, which were recognized already in the early years of autism research (Kanner, 1943; Hutt et al., 1964; Hermelin and O’Connor, 1970; Ornitz, 1974). Despite having been largely forgotten as the history of autism research progressed, recent research suggests that sensory differences occur in over 90% of autistic individuals and impact fundamental areas of functioning, such as perception, action, engagement in everyday activities, and social interaction (Leekam et al., 2007; Baranek, Wakeford and David, 2008; Robertson and Baron-Cohen, 2017). In addition, the autism literature suggests that sensory differences are implicated in a wide array of social difficulties in autism (Woynaroski et al., 2013; Dakopoulos and Jahromi, 2019; Kuno-Fujita et al., 2020; Lin, 2020). Autistic self-reports have highlighted the importance of subtle and pervasive sensory differences for understanding social difficulties (Cesaroni and Garber, 1991; Williams, 1992; Hale and Hale, 1999; Biklen et al., 2005; Grandin, 2006). For example, a 13-year-old boy, “Albert,” describes being overstimulated by touch, reporting that “it hurts” and “it’s too much,” causing him to stiffen up in situations involving physical contact (Cesaroni & Garber, 1991, pp. 306–307). Autistic writer and artist Donna Williams explained how sensory differences affected her ability to process information through multiple sensory modalities, causing her to “turn off her ears” if she needed to maintain eye contact (Williams, 1992). While such issues undoubtedly affect social engagement in autism, the question remains of how to characterize this process further and understand it on an experiential and phenomenological level.

This article aims to clarify the relationship between sensory and social experience in autism by exploring how the embodied expressions of other people in social contexts appear in autistic sensory experience. Given the importance granted to the sensory and perceptual dimension of social encounters by phenomenological accounts of autism, this question must be considered crucial. To shed light on this question, I draw on qualitative data from an ongoing research project on autistic social experience and practice gathered through extensive fieldwork in social groups for adolescents and young adults with autism and in-depth qualitative interviews with the group participants.

²⁸ The advent of these embodied and phenomenological approaches to autism relates to a parallel movement in cognitive science, where second-person approaches are gathering momentum. By promoting the idea that social understanding emerges from and is conditioned by concrete and embodied interaction (de Jaegher & di Paolo, 2007; Ferrer de Luna, 2019; Schilbach et al., 2013), these approaches contribute to developing an embodied and relational approach to autism (de Jaegher, 2013, 2021; Gallagher, 2004).

Through a phenomenological analysis informed primarily by the philosophy of Maurice Merleau-Ponty, I argue that sensory differences affect the way other people appear in autistic experience on a pre-reflective level. By exploring the diverse ways in which sensory differences can destabilize the experience of social encounters, this analysis points to the importance of understanding the sensory dimensions of embodied intersubjectivity and the potential role of practice and activity in the experience of social meaning. By approaching social encounters as sensory and perceptual events, I emphasize how social difficulties in autism are closely related to the experience of the surrounding world and thus inherently world-involving phenomena rather than cognitive deficits reducible to the autistic person.

Theoretical background: Intersubjectivity and perception in Merleau-Ponty

A central aspect of phenomenological accounts of autism is the attention to the embodied and perceptual nature of intersubjective encounters. Below, I will introduce a phenomenological understanding of the relation between intersubjectivity and perception, which will form the theoretical basis of the following analysis of sensory and social experience in autism. The phenomenological approach to social experience has much in common with more recently developed second-person approaches to social cognition and interaction, according to which social understanding proceeds directly in concrete interactional contexts without the need for inference or mental representation. Indeed, the Merleau-Pontian and Husserlian notion of the body has contributed significantly to developing enactive accounts of cognition (Bar, 2020; Gallagher, 2012). Despite this common ground, the following account will remain largely within the parameters of Merleau-Ponty's phenomenology to pursue and focus on the experiential and perceptual features of intersubjectivity rather than on the interactional dynamics themselves.

On a phenomenological account, social understanding and interaction are not processes mediated by reflective activity, as the experiential life of another person is present immediately in the form of bodily expressivity. According to Merleau-Ponty, observable behavior does not hide the other's emotions, intentions, thoughts, and desires as inaccessible internal states (Merleau-Ponty, 1964a, pp. 52–53). Instead, they are embodied as meaningful expressions directly available in perceptual experience.²⁹ Social encounters

²⁹ The view that mental states are directly available in perceptual experience bears on the idea that intentions and emotions are concretely embodied in expressive behavior. Seeing, hearing, or feeling another person's bodily expressions thus present their emotions or intentions directly, that is, without mediation from reflection, inference, or metarepresentation. This phenomenological understanding of perception and social experience has recently gained increased attention in 4E approaches to cognitive science under the heading "direct social perception" (Krueger, 2018; Spaulding, 2015). One potential challenge for such an approach to social cognition is accounting for how social interaction and understanding develop throughout life and become smoother with time.

are thus perceptual events, which Merleau-Ponty emphasizes through his description of the “esthesiological phase” of empathy:

The whole riddle of *Einfühlung* lies in its initial, “esthesiological” phase; and it is solved there because it is a perception. He who “posits” the other man is a perceiving subject, the other person's body is a perceived thing, and the other person himself is “posited” as “perceiving.” It is never a matter of anything but co-perception (Merleau-Ponty, 1964b, p. 170).

Drawing on Edmund Husserl's analysis of double sensation (Husserl, 1989), Merleau-Ponty argues that the experience of others is a perception in which the other's body appears not only as a perceived thing but a perceiving, sensing, living being. One perceives the other as perceiving, and consequently, the other appears in the form of a different sensibility and mode of perception.

Recently, Allan Køster (2021) has drawn attention to this sensory dimension of intersubjectivity in his analysis of the felt sense of the other. For example, hearing the unique sound, melody, and tonality of the voice of a loved one or noticing their distinct scent or patterns of movement represents how the experience of others is sensory and affective rather than cognitive or epistemic. Drawing primarily on Merleau-Ponty, Køster describes the felt sense of the other as a sensorium, understood as an experiential structure constituted reciprocally by the other's expressive style and the perceiver's style of perceiving (Køster, 2021, p. 64).

The sensorium of the other thus denotes a complex phenomenological structure through which the other person appears “as a unified whole through a range of sensory modalities” (Køster, 2021, p. 58). Køster outlines the sensorium of the other as an intermodal phenomenon through the ability of sensory modalities to “coalesce and manifest in highly intermodal and synesthetic ways” (Køster, 2021, p. 67). Køster's analysis aligns with Merleau-Ponty's understanding of social experience as revealing the other as a meaningful whole rather than a series of impressions. According to Merleau-Ponty, perception always transcends what is directly given in perception as the object as a totality always gives more than its intuitively given profiles. In the following, Merleau-Ponty describes how perception is thus co-constituted by the pre-reflective co-intention of a horizon of non-perceptions.

The perceived is composed of lacunae that are not merely “non-perceptions.” I can know that a crystal that I see or touch has a “uniform” shape without having, even tacitly,

Here, it is fruitful to take a closer look at the idea of perception implied in this view. Perception is not a passive, observatory stance through which we receive and subsequently process sensory input. Instead, perception is inextricably tied to bodily activity. In the case of social perception, experiencing, and understanding, the other's expressive behavior is an interactive process. Thus, the complexity and nuance of social understanding develop and mature as social interaction becomes more complex. For additional discussion, see Vincini & Gallagher (2021).

counted its sides. I can become familiar with a person's face without ever having perceived, for itself, the color of the eyes (Merleau-Ponty, 2012, p. 11).

Although the world is always given perspectively rather than in its totality, objects appear in experience as meaningful wholes. According to Merleau-Ponty, "we hardly perceive any objects at all, just as we do not see the eyes of a familiar face, but rather its gaze and its expression" (Merleau-Ponty, 2012, p. 294). In this way, the experience of another person relies on only tacitly (rather than thematically) experiencing aspects such as facial features. Thus, both perception of objects and persons rely on this oscillation between object and horizon that Merleau-Ponty characterizes as the "two-sided act" of perception.

To see the object is to plunge into it and because objects form a system in which one object cannot appear without concealing others. More precisely, the inner horizon of an object cannot become an object without the surrounding objects becoming an horizon, and so vision is a two-sided act (Merleau-Ponty, 2012, p. 70).

Merleau-Ponty's idea of vision as a "plunging into" objects furthermore emphasizes how perception is an active communication with, rather than something "exerted on," the world (Merleau-Ponty, 2012, p. 53). In their phenomenological analysis of the notion of *sensus communis*, Samuel Thoma and Thomas Fuchs emphasize how perception is a way of "sensing and touching the world, whereby the subject gets in close contact with what is sensed, moves towards it, and is moved by it" (Thoma and Fuchs, 2017, p. 139). This reciprocity of perception is perhaps most clearly expressed in the perception of another person, where we experience the encounter with another perspective on the world in which "a different comportment and a different gaze take possessions of my things" (Merleau-Ponty, 1964b, p. 170).

This understanding of the perceptual dimension of social encounters provides a sound theoretical framework for understanding how sensory differences affect social experience in autism through facilitating attention to the complex perceptual and bodily structures of our experience of other people. In the following analysis, I will focus primarily on Merleau-Ponty's notion of horizon and Køster's notion of the felt sense of the other as a conceptual basis for exploring the variety of ways autistic persons sense, feel, and handle social encounters.

Methodology

The following analysis draws on empirical data from an ongoing qualitative and phenomenological study exploring the pre-reflective and sensory aspects of social experience in autism and its connection to embodied and material practices. This phenomenological orientation warrants an approach to qualitative research adapted to how the phenomenon in focus expresses itself in experience (Boldsen, 2021). This study draws from resources from both descriptive phenomenological psychology (Giorgi, 2009; Englander, 2020;

Englander and Morley, 2021), micro-phenomenology (Petitmengin, 2006), and interdisciplinary approaches to phenomenology and qualitative science (Høffding and Martiny, 2016; Ravn, 2021). The empirical context in which this study explored social experience and practice are social groups for young people with autism. These groups represent an increasingly popular approach to addressing social difficulties in autism by facilitating friendship between peers and providing social competence training.

This study employed an exploratory research design that combined ethnographic fieldwork and qualitative interviews within a phenomenological framework. Fieldwork spanned eighteen months, from October 2017 to June 2019, and included participant observation in two social groups for autistic adolescents and young adults: one for autistic women aged 18-27 and one mixed-gender group for autistic young people aged 15-21. Observations at the biweekly group meetings were occasionally supplemented with day trips or sleepovers during weekends and after-meeting debriefings with the pedagogical staff organizing the groups. In addition, qualitative interviews were conducted from February 2019 to May 2019 with eleven group participants, seven from the youth group and four from the women's group, one interview per participant. The length of the interviews ranged from fifty to ninety minutes.

Fieldwork in the autism groups played a crucial role in supporting the qualitative interviews that formed the second part of this study's data collection in two ways. First, by providing access: As group participants tended to distrust psychologists and the possibility of evaluation and face-to-face interactions can feel unsafe for autistic individuals, prolonged fieldwork eased the process of building the interpersonal trust necessary to conduct qualitative interviews. Second, by refining the focus of the interviews: Emerging familiarity with the group participants' experiences and social practices pointed to relevant topics to address in conversation and helped the interviewer's participation in the process of recalling and describing various experiences (Høffding and Martiny, 2016; Ravn, 2021).

A phenomenological approach to qualitative interviews was adopted to pursue experiential, pre-reflective, and sensory features of social engagement in autism. This approach drew inspiration from the interview techniques advocated by phenomenological psychology (Englander, 2020) and the micro-phenomenological interview (Petitmengin, 2006). Using qualitative interviews within a phenomenological framework requires the facilitation of experiential descriptions rather than explanations or opinions (Høffding and Martiny, 2016; Englander, 2020). This requirement was cashed out by focusing interview questions on concrete instances of social experience and working through its pre-reflective and sensory features (Petitmengin, 2006). A semi-structured interview guide focused on concrete social situations and the sensory, bodily, and material features that constituted negative and positive social experiences. Many aspects of interviewing may be difficult for autistic persons. Social interaction with the interviewer may be experienced as overwhelming, verbalization of experiences and emotions may be difficult, and the interview situation itself may be stressful and anxiety-provoking. In addition, autistic

persons express themselves in atypical ways, motivating some scholars to recommend visual aids during the interview (Shepherd, 2015). To accommodate such challenges, all interviews were conducted during group nights to meet participants' need for stability and sense of security and minimize intervention into everyday life routines. Great care was taken to produce an autism-friendly interview situation. Interviewees were invited to engage in whatever activity they preferred, such as drawing, fidgeting, and listening to music during the interview to increase a sense of comfort in a potentially stressful situation. In addition, an employee connected to the autism groups with whom interviewees felt safe was made available for debriefing after the interviewee if needed. After each interview, and through dialogue with developing understandings of autistic social practices achieved during fieldwork, the interview guide was refined and specified as new aspects of social experience in autism emerged.

The analysis in this study aimed to explicate and describe the phenomenological structures underlying and supporting the autistic social practices and experiences documented in the data. This aim was reached through a method of analysis that employed both exploratory and phenomenological strategies divided into two stages. The first analytic stage sought to understand the lived experiences and practices expressed in the data on their own premises. This process was initiated by exploratorily reading and re-reading the data material, following Amedeo Giorgi's strategy (Giorgi, 2009). Through this initial immersion, codes were developed to organize data according to central aspects of participants' lived experiences of social interactions, such as "being overwhelmed by voices" or "disconnection from others." The second analytic stage described the phenomenological structures supporting the participants' lived experiences and practices. Two processes defined this stage. The practice of explicating latent or tacit meanings in the data (Englander and Morley, 2021) and exploring structural aspects of these meanings with inspiration from phenomenological analyses and concepts (Ravn, 2021). At this stage, coding of the data aimed to connect participants' experiences with phenomenological themes reflecting the analytic interest of the researcher, such as "reciprocity" and "foreground and background in sensory experience." In the following presentation, data excerpts were selected according to their ability to exemplify core features of both analytic stages. Moreover, the presentation of the analysis will reflect the process of moving from how participants describe and understand their own experiences to a discussion of the phenomenological structures underlying and supporting these experiences.

The Danish Committee System on Health Research Ethics reviewed the ethical dimensions of his study. Following the guidelines on research ethics in the social sciences and humanities provided by the European Commission, the following steps were taken to ensure the ethical integrity of this study (European Commission, 2018). First, informed consent was sought during fieldwork and at the time of interviewing, where gradually increased familiarity between researcher and research participants formed the basis of trust. All research participants and their parents, if underage, signed a written consent form. Second, data were treated following the EU General Data Protection Regulation

(Regulation (EU) 2016/679 of the European Parliament and of the Council, 2016), pseudonyms for the research participants were used, and place names and other details enabling the identification of research participants were changed.

The sound of voices and the texture of skin

To describe how other people appear in autistic sensory experience, I will present a series of descriptions of social experiences provided by adolescents and young adults with autism during qualitative interviews. As described above, interviews addressed how research participants experience social interaction, why it can be challenging, and how they handle these challenges. As examples of socially challenging situations, participants described a wide range of social situations, such as family dinners, small talk with friends, encountering strangers, parties, or group exercises at school. A general feeling of being overwhelmed by and separated from others in social situations runs through these descriptions. One prominent feature of these experiences is their sensory manifestation. Participants usually described being overwhelmed as the uncomfortable sensory and affective experience of sound, touch, or visual aspects of the social environment appearing oppressive, chaotic, and threatening. In addition, social situations were described as intrusive and claustrophobic and as provoking a form of withdrawal or retreat from interactions with others and a sense of being separated from one's surroundings and other people.

Johanne, a 26-year-old woman with Asperger's Disorder, describes this feeling of being overwhelmed in a social setting through her experience of the buzzing soundscape of voices and conversations at a family gathering:

It is like a constant blanket of sound that just keeps coming at you until you are totally disoriented. [...] You can't really get away, and it's like a sea, that just... It's just everywhere, and you can't get away. [...] I don't know if the sounds, in a way, are more penetrating... As if they are reaching a deeper layer of the psyche or that they don't just pass by.

Johanne describes the surrounding voices as a sea or a blanket of sound rushing over her in an invasive or penetrating manner. The social gathering she is part of appears sensorially dense and saturated to a point where the conversations around her do not consist of meaningful voices but dissolve into undecipherable noise. Nina, a 17-year-old woman with Asperger's Disorder, describes a similar experience of sensory saturation in a situation in which she is trying to have a conversation at a party:

There were many people whirling around me, so there were a lot of impressions, also because I wanted to look at and hear and follow everything. [...] It's like if you're trying to focus on something, and then there is someone in the periphery of your eyesight flicking their fingers [showing a flicking/fanning movement with the fingers beside her head], and it just won't stop. When I was sitting at a table talking to someone, then that was what those dancers that whirled around felt like. [...] It's a bit like if someone is coming up

behind you [...] Almost as if you can feel someone's touch without them actually touching you.

Like Johanne, Nina describes how the sensory background of a social situation, here the movements of dancing people in her visual periphery, refuses to remain a tacit background but constantly demands attention with acuteness and emergence. In Johanne's case, the auditory horizon of casual conversation around the table refused to remain a tacit background. Instead, it intensified and experientially 'thickened' until it was no longer background but an overwhelming 'sea' of noise. Simultaneously, everything and nothing are in focus, thus representing an imbalance between the thematized and the tacitly co-intended in perceptual experience. Nina's descriptions of the peripheral whirling dancers elaborate on this imbalance. In this case, it seemed that the dancers' movements did not remain visually implicit but demanded attention as explicit objects and disturbed her experience of proximity and presence to the conversation in which she was engaged.

There is a sense in autistic social experience that various co-perceived aspects, such as gestures and movements in the background, or the acoustic qualities of a voice, lose their tacit and implicit character and surface in perception as thematized objects of attention. This implies a double movement. First, the usual background noise in the auditory and visual environments loses its character as an unnoticed background and instead moves to the foreground of the experience. Second, their sense of presence in the concrete interaction in which they are engaged dissolves into this sea of noise and movement. Thus, the perceptual saturation implied in the above descriptions indicates a simultaneous experiential disconnection from the perceptual situation and its meaning.

What is described by Merleau-Ponty as the two-sided act of perception manifests radically differently in these descriptions. Rather than the smooth oscillation between object and horizon, autistic social experience, as described by Nina and Johanne, is characterized by the perpetual foregrounding, or coming-to-attention, of the world. Rather than remaining a background upon which the embodied expressions of the other person can stand out as meaningful, the sensory surroundings are experienced as invasive and violently closing in. The idea of perception as a simultaneous sense of moving and being moved by the world is replaced by a sense of being pushed away by a sensorially chaotic, unpredictable, and unfamiliar world.

In another context, Nina describes the feeling of being overwhelmed by other people through the experience of touch in a situation where a stranger reaches out to shake her hand.

It's a very panicked feeling. It's as if you're presented with a box in which you know there's something inside, and people want you to feel what it is. It's the same feeling of "ohhh no, something is there!" and you don't know what is in the box or what this sensation is going to feel like [...] You don't really know what the person wants, just like you don't know what's in the box. Like in *Diva's in the Jungle* [Danish reality TV program, ed.] where they put a pig's heart or some chicken in there, and the participants have to stick

their hands in there. You don't know what's in the box. Some people have very soft hands, some feel kind of rough and some are almost a little wax-like as if their hands are greasy. [...] So you don't know what is reaching for you, and you don't know what this person will do with your hand.

Like the descriptions recounted above, Nina communicates the feeling of being overwhelmed through the intense experience of sensory proximity. In the situation, she avoids reciprocating the stranger's gesture. Instead, her experience concerns the feeling of the hand approaching, closing in, and the preemption of what awaits when it finds her. Her anticipation of the hand's texture, its possible greasy, wax-like, rough, or soft qualities, engulfs her experience to a point where she cannot respond to the handshake as a meaningful gesture. In her experience, what approaches her is not a handshake but something she compares to raw meat. A shared feature of the descriptions of social situations addressed above is the sense of the sensory surroundings, whether buzzing voices, peripheral movements, or skin texture, closing in, approaching, and becoming experientially invasive.

In the examples recounted above, the experience of the other person as immediately meaningful, which both Husserl and Merleau-Ponty associated with most social encounters, seems to be obstructed by the overwhelming experience of the sensory features of the encounter, such as the texture of skin in Nina's case or the auditory quality of voices in Johanne's case. The constant surfacing of these material features of the other's body as thematic objects of attention renders the other alien and uncanny and amounts to a form of experiential noise or static that interferes with the possibility of social engagement. One might even say that sensory experience introduces a veil of perception, disrupting the immediacy with which the other person appears as meaningful.

Furthermore, what pervades the experiences described above is their sensory-affective dimension—social situations and interactions present as chaotic and unpredictable and with a sense of oppressiveness and threat. For example, in the case of Nina's experience with the stranger, the handshake is experienced as a violent approach of something frightening and unexpected rather than a friendly gesture. Similarly, Johanne's experience of being engulfed by a sea of noise implied a strong sense of affective alienation from the social situation from which she experientially withdraws when social expectations make it difficult for her to leave physically. In her words, "I can get so distant and almost isolated from what happens around me because I just shut down." Thus, sensory experience in autism can disrupt the sense of familiarity with others and sense of security in social situations.

Familiarity and alienation in autistic social experience

According to Køster, the feeling of familiarity with other people is so fundamental to social experience that “like many phenomenologically interesting experiences, it may only become salient through its explicit absence” (Køster, 2021, p. 58). The following descriptions reveal such an absence by presenting experiences of social encounters in which a sense of alienness and opacity permeate the social situation and the other person. Moreover, they reveal how this felt sense of the other disturbs the possibility of social engagement by promoting affective withdrawal and disconnection.

Hanna, a 17-year-old woman with Asperger’s Disorder, describes her response to a social situation, where the soundscape of the family gathering on Christmas Eve feels overwhelming and chaotic:

It is like I’m beginning to shake uncontrollably and can’t sit still. I just want to get out of my body, although I can’t. No matter what I do, I can’t get calm. [Interviewer: And then what do you do?] I try to push it away, but it’s difficult because you hear sounds no matter how much you don’t want to hear them. You can’t just shut down your hearing. I get very quiet and shut within myself so I can focus better, and I try to close... or to go into myself and just try to do whatever it takes to be in this situation, and yeah, to create a bubble around myself.

Hanna's experience points to an important affective dimension of feeling overwhelmed by others by describing the feeling of anxiety and petrification. Her description of a form of emergency shutdown communicates a feeling of disconnection and detachment from the social situation and other people. Below, Helene, a 17-year-old woman with Asperger's Disorder, expresses a similar sense of disconnection from others in her description of the experience of engaging in eye contact.

It feels very... Not intimate exactly, but something like it. It’s very overwhelming. [...] It feels like they can see more. Like, they see me, and I see them, and then I feel insecure about how they see me. Like, how they look back. [...] I’m looking at them, and I can see that they are observing me and that makes me insecure because there is something that I feel like I’m not seeing or something that I don’t really know how to, like, see. [...] It’s like there is a link missing between my perspective and how others experience it. I’m missing a bridge between the two. There is just a gap. [...] There is a bridge between me and the other person, and I think they can cross that bridge, but I cannot do it because there is a gap that doesn’t exist for them.

From this excerpt, it is evident that Helene has difficulty finding the words to describe her experience. She feels as though something is missing in her experience of the other person, something that they can see in her but that she cannot access in them. The sense of familiarity with the other is missing, and what features instead is the feeling of insecurity, anxiety, and disconnection from others, described vividly as the experience of a missing bridge. The feeling of being overwhelmed in eye contact is thus simultaneously characterized by the experience of social detachment and alienation. Expanding on another

aspect of coming into contact with strangers, Nina describes eye contact as uncomfortable because of the access seemingly enjoyed by the other person:

It feels weird to sit and look into each other's eyes. Because I feel that people are kind of looking into... If you're sad, then they will see it. Looking into each other's eyes seems a little intimate. [...] When you're among other people and you feel sad or stressed, then you avoid eye contact because you can feel that they can see it on your face instantly. [...] I get very uncomfortable and conscious when I have that kind of contact. It's a feeling of shaking, wanting to adjust one's clothing, and feeling that they see me. I become afraid to look wrong or to make a wrong movement.

In this description, the other person seems to come too close and have too much access, which returns Nina's awareness to how she looks through the other person's gaze rather than how they look through hers. Like Helene, Nina experiences a break in the mutuality of social experience manifested through the affective lens of anxiety and discomfort.

The experience of other people as oppressive and unpredictable and of social situations as invasive, chaotic, and claustrophobic run through the various descriptions of social encounters recounted above. Furthermore, this feeling is closely associated with the experience of detachment from and inaccessibility of other people and social meaning. Being sensorially overwhelmed introduces a sense of threat and a desire to move away from rather than toward the world and others. Indeed, a sense of perplexity and petrification seems to have replaced the sense of ease and fluency characterizing social encounters from the perspective of phenomenology. Moreover, these descriptions bear witness to a break in the reciprocity of social experience, which perhaps constitutes the most fundamental feature of phenomenological accounts of social experience (Merleau-Ponty, 1964b; Husserl, 1982).

According to Husserl, the experience of the other person is enabled by a pre-reflective formation of phenomenal unity between the other's body and one's own. This process, termed "pairing," involves what Husserl describes as a "mutual transfer of sense" whereby "this body must forthwith appropriate from mine the sense: animate organism" (Husserl, 1982, p. 113). Pairing thus relies on a sense of familiarity between bodies, a sense of bodies being of the same kind, and is therefore not only a perceptual but also an inherently affective process. The examples presented in this article speak to this relationship between the presentation of another person in sensory experience and the affective tonality with which that other person appears. Thus, sensory differences in autism destabilize the other person's appearance as a meaningful expressive unity. With Køster's phrasing, we can understand autistic sensory experience as destabilizing the sensorium of the other person by transforming the affective tonality of the social encounter and promoting disengagement and withdrawal. In the following, I will explore various processes and practices of restoring this sense of security in and connection to social situations.

Sensory urges and social deliberations: Strategies of reconnection

Research participants generally described two ways of dealing with the experience of social interaction. First, in response to the feeling of detachment from one's surroundings, participants described a strategy of seeking out sensory involvement to provide a sense of presence and focus during stressful experiences of a chaotic and threatening sensory environment. This strategy implied an inherent ambiguity, as sensory experience both instituted and resolved the feeling of being overwhelmed in social situations. Second, experiences of others as opaque, alien, and of social detachment were handled by relying on thinking as an approach to social understanding. This strategy provided a feeling of having an access point, a sense of footing, and a point of orientation in an inherently disorienting encounter with another person.

In her description of whirling dancers, Nina communicates how she also experiences the feeling of being overwhelmed by others as an urge to look at them:

You can see it out of the corner of your eye, and you want to look because it takes up your attention, but you also know that you're sitting and talking with someone. Then there is perhaps someone at another table getting up, and then you want to look at that also.

Being overwhelmed is simultaneously a feeling of being drawn in or disturbed by the surroundings. To relieve this disturbance, Nina describes using headphones with music playing in one ear to shut out what is experienced as intrusive and as an anchor securing her sense of presence in the situation.

I tend to follow conversations around me, and I can't shut them out. [If I listen to music, ed.], then my brain doesn't concentrate on those conversations but on the music. If I start to feel anxious and there are many people, then I can just concentrate on the music [...] as a way to get away if anything happens. [...] I tend to put some music in my ears because it works as an automatic wall being put up. The bass will thump a little in your ears or vibrate a little. [...] Otherwise, I get very restless about not being allowed to look.

The sound and vibration of the music thus function as ways of calming Nina's restlessness and, by experientially separating her from the chaotic surroundings, provide ways to fasten and center her attention on the interaction in which she is engaged. Line, a 17-year-old woman with Asperger's Disorder, describes how a disciplined focus on single aspects of the visual environment can ease this impulse to follow movements or sounds around her. In the following, she describes a dinner party with her parents and their family friends:

Everything is just turning and turning around you... And I actually have a sort of urge to really know where everything comes from. Every time I sense movement, I look to see what it is, or if I hear a sound, I look to see where it comes from. [...] I try to focus on something different. It can be looking out the window or looking down at a... the glass of water in front of me. [...] I don't know... Maybe it makes sense somehow, so I can

calm down a little by focusing on some object and say, "okay, now it is this thing, which is important."

In this way, Line willfully absorbs herself in a particular aspect of the sensory world to navigate the chaotic sensory environment represented by the dinner party. The glass of water standing in front of her at the dinner table acts as a sensory anchor maintaining her presence in these overwhelming visual and auditory surroundings. She forces the object to appear meaningful and stand out in the muddle and chaos around her by deliberately focusing on the glass. Helene describes a similar strategy in the context of touch:

I often seek stimuli when I come home to my parents. They know that they should hug me hard. [...] I've started to seek out being squeezed or pressed by my parents when I've had a long day. [...] I get very overwhelmed in my body and in my head, and then the more hard pressure somehow grounds me. Because everything feels like static electricity, I don't know how to explain it, you know, like if the TV flickers.

Seeking out touch as hard, constant pressure relieves Helene of the static and flickering sense of touch she describes as part of her sensory issues. Like Line's visual absorption in the glass of water, Helene immerses herself in the experience of a clear, demarcated, and steady touch rather than the buzzing or fluttering tactile impressions that she elsewhere refers to as feeling "like bees."

Nina, Line, and Helene describe this deliberate grounding and centering of dispersed attention by seeking out sensory experiences in different ways. While Nina describes an auditory strategy of listening to music, Line describes a visual strategy of focusing on an object in her immediate surroundings, and Helene describes a tactile strategy of seeking firm pressure. In their descriptions, such practice of sensory seeking allows an experiential anchor turning them away from a chaotic and unpredictable situation and toward a sense of presence to the social interaction in focus.

Research participants described another strategy as a practice of using reflective attention and deliberate reasoning as an approach to social interaction and understanding the social expressions of others. For example, Nina describes the following situation, where she is asked for directions in public transport:

When someone approaches me like that, I just sit there with cold sweats. I don't know what to answer and fumble with the words. I feel somewhat strange or off and very conscious about my movements. I just feel strange. [...] It is as if the world stops. I feel a chill and get all stiff in my body. From feeling quite light and free, I suddenly feel trapped in a cage and have to answer [...] "Normal people," quote-unquote, would probably just answer her because they are totally used to automatically reading facial expressions, tone of voice, etc. But if I have to answer her, then I first have to figure out what her face is telling me, what her body posture is like, what is her tone of voice, what she is actually saying, what is the mood in the situation. Like, is she looking angry, is she angry, does she seem angry, or is she surprised, happy, etc.? All of these things have to be turned around in my head, and people expect an answer fairly fast, so if you don't answer within, say, 30 seconds, people will start to question whether you even heard them.

Faced with the stranger's question, Nina describes a feeling of perplexity, insecurity, and motionlessness, almost as if she were a deer caught in the headlights. She describes as particularly stressful the immediate prospect of being put on the spot while incapable of answering within the expected timeframe. Rather than what she describes as an "automatic reading," she goes through a laborious process of thinking through individual aspects of the other's bodily expressions one at a time. In this systematic way, Nina works out what is expected of her in this social situation by drawing on analytic and reflective resources. Like the practice of sensory seeking described above, this strategy applies an active approach to something that would typically be passive or intuitive. Both represent practices of deliberately and actively seeking out social meaning in an overwhelming social situation and thus reconnecting to other people when faced with the experience of their unfamiliarity and unpredictability. In the case of thinking through social interaction processes, it represents a practice of deliberately and laboriously seeking out social meaning through an analytic approach. In the case of sensory seeking, it functions as the deliberate attempt to anchor oneself in single aspects of the sensory surroundings to provide a sense of presence despite the experience of a chaotic and fragmented world.

To understand these strategies better, we can return to Merleau-Ponty's analysis of the relation between object and horizon in perceptual experience. His idea that "it is necessary to suspend the surroundings in order to see the object better" and that "to see the object is to plunge into it" (Merleau-Ponty, 2012, p. 70) helps understand sensory seeking as a way to deliberately plunge into objects. Sensory absorption, whether visual, tactile, or auditory, represents ways of forcing objects to stand out: to tear away figure from ground and thus re-establish a relationship between foreground and background in experience. Perceptual significance is sought by actively and intentionally singling out particular objects or aspects of the sensory environment, and, in this way, a sense of perceptual grip is reestablished in a situation that would otherwise appear as a jumbled confusion of fragmented sensory impressions.

As the above analysis has revealed, an essential aspect of coping with the sensory density of social situations is using reflective attention toward something that is typically an intuitive and automatic process. In everyday neurotypical experience, the world appears as a meaningful network of objects and relations whose situationally and contextually relevant aspects effortlessly reveal themselves. In this case, social meaning is wrenched out through an effortful and laborious process robbed of the sense of ease and fluency that phenomenological accounts often ascribe to social understanding and interaction. In the following, I will discuss the implications of this relation between sensory and social experience in autism for discussions on the role of practice, grip, and compensation in disability and psychopathology.

Discussion

The diverse experiences recounted above revealed how social encounters for autistic persons can manifest as sensorially disturbing and chaotic events and how other people appear unfamiliar and threatening in this context. Moreover, in response to the sense of detachment and disengagement from the social world experienced by autistic persons, strategies of reconnection were mobilized that actively sought out perceptual meaning in an inherently strange and unpredictable situation. This analysis highlights both the role of receptivity and responsivity in how other people appear in social experience (Køster, 2021) and the role of practice and activity in the experience of perceptual and social meaning (Salamon, 2012).

Køster emphasizes how the felt sense of the other is a phenomenological structure characterized by reciprocity between what can be termed a style of the perceiver and a style of the perceived.

Although the expressive style of the other has a definite autonomy and specificity, it cannot be regarded in isolation from the ontogeny and habituated style of perception of the perceiver. In the sensorium of the other these two aspects intertwine intercorporally (Køster, 2021, p. 64).

In this paper, I have explored how habituated perceptual styles in autism destabilize and fragment the sensorium of the other and transform the affective tonality, or felt sense, with which the other appears. The idea that a deep sense of familiarity with others is fundamental to our experience of the social world echoes through this analysis, in this case, by demonstrating how such a sense of familiarity can be disrupted. Concerning the reliance on direct and pre-reflective access to social meaning in phenomenological accounts, this analysis emphasizes how such access is negotiated with the particular form of embodiment enjoyed by the perceiver. In this case, the features of autistic sensory experience introduced an aspect of mediation in social experience, thus pointing to the intuitive givenness of social meaning as a privilege of the able-bodied.

In addition to the importance of perceptual style in social encounters, this analysis emphasizes the importance of practice and activity in the experience of social meaning. In her analysis of maximal grip, Gayle Salamon argues that disabled embodiment reveals a fundamental structure in the relation between self and world, namely that our enmeshment with the world is not characterized by dexterous mastery and expertise (Salamon, 2012, p. 244). Where Hubert Dreyfus characterizes maximal grip as the body's fluent ability to bring the world closer to an optimal gestalt, Salamon emphasizes how embodiment should be understood as something that can be thrown out of balance and vulnerable in the encounter with the world and other people (Salamon, 2012, p. 250). Through reading two disability memoirs, Salamon identifies an aspect of grip as what could be termed practice.

Grip is deployed in both cases not as a way of enmeshing seamlessly with the world, but as a means of methodically composing the body as a substitute for an unthought, and now foreclosed, enmeshment with the world. Grip is the use of deliberate action to order the self as a compensation for lost bodily intentionality (Salamon, 2012, p. 248).

In Salamon's analysis of arthritic embodiment, grip refers to a methodical "taking a grip" on one's body by testing and checking its flexibility, painfulness, and capacity before engaging in a task. This idea of deliberation in the relationship between self and world is useful to understand autistic strategies of reconnection as practices of reestablishing a perceptual grip on the social situation. The practice of actively pursuing sensory stimulation in social situations is a way to gain a sense of footing in and hold on the social situation by forcing the world to stand still to see it better. These practices thus act as bodily auxiliaries that facilitate a sense of engagement with an otherwise chaotic and unpredictable sensory and social environment, thus emphasizing the possible role of activity in maintaining a sense of intuitive grasp of social meaning.

The role of practice and activity in autistic social experience invites further consideration of how such practices may be supported and facilitated to strengthen autistic persons' experiences of social connectedness. For example, the strategy of seeking out sensory stimulation to maintain a sense of presence in social situations calls for an approach that takes the role of objects and the material environment in facilitating social encounters seriously. As is described both in the historical literature and the current diagnostic guidelines, autism is characterized by abnormalities in the use of objects and the relation to the physical environment (Kanner, 1943; World Health Organization, 2018). Recent debates in psychology and cognitive science concerning the role of objects in social and psychological development have motivated interest in how the use of objects may facilitate processes of social interaction and communication in autism (Iannaccone et al., 2018; Manzi et al., 2020; Williams et al., 2018). In the field of psychology, a socio-material and ecological perspective highlights the constitutive function of objects and artifacts in psychological and social development, and in the field of cognitive science, enactive, embedded, and material theories of cognition have emphasized the role of interactive context and materiality in social interaction and cognition (de Jaegher & di Paolo, 2007; Gibson, 1979; Malafouris, 2013; Pedersen & Bang, 2016; Rietveld et al., 2018). Thus, an important avenue to pursue further in light of the analyses presented in this paper is, on an empirical level, how social aspects of autism relate to aspects typically considered a-social, such as use of objects, insistence on sameness, or repetitive behaviors, and on a theoretical level, how intersubjectivity relates to the material environment (see Boldsen (2022b) for further exploration of these issues).

In this article, I have presented descriptions of autistic social experience that emphasize how the surrounding (social and physical) world appears as a strange, overwhelming, and chaotic place. Taking this relational view of social experience seriously implies considering autistic social behaviors as attempts to navigate and meaningfully respond to this uninhabitable world of experience. It is well known that autistic persons employ a range

of strategies to function in neurotypical social contexts, such as applying learned rules to social interactions or other ways of masking autistic difficulties (Livingston et al., 2020). Such compensatory strategies are often described as cognitive in nature and directed toward compensating for theory of mind difficulties in social situations (Livingston et al., 2019). A related point is expressed in the phenomenological literature on autism, where Dan Zahavi and Josef Parnas argue that autistic individuals resort to an intellectually driven approach to social encounters as a way to compensate for “a lack of an immediate, pre-reflective, or implicit understanding of the meaning of social interaction” (Zahavi and Parnas, 2003, p. 67). Here, Zahavi and Parnas build on insights from schizophrenia research, where hyperreflexivity is defined as an overreliance on reflective attention toward oneself and one's surroundings to compensate for a diminishment of the pre-reflective grasp of meaning (Sass and Parnas, 2003; Fuchs, 2010). However, rather than representing such strategies as pathological attempts to compensate for a lack, I think they bear witness to an essential sensory and perceptual aspect of compensation, which casts autistic social difficulties and reparatory practices as profoundly world-involving. Furthermore, phenomena such as masking emphasize the disabling and discriminatory effects of social norms and expectations in different societal contexts (Radulski, 2022). An interesting avenue to pursue considering the current study is developing research approaches that are sensitive to both experiential and societal features of autism that would help address the question of how sensory experience relates and responds to social structures, norms, and expectations in concrete social contexts and interactions.

Autism painfully demonstrates how perception is an ongoing project of negotiating the reversibility of gripping and being in the grip of the world, of moving and being moved by the world (Salamon, 2012; Thoma and Fuchs, 2017). This emphasizes how autism can be understood as an exceptional style of being rather than expressions of underlying impairment. Joel Krueger characterizes autism as “a felt sense of being bodily and affectively out-of-sync with neurotypical spaces not set up to accommodate non-neurotypical styles of being in the world” (Krueger, 2021, p. 3). This mobilization of the notion of style to describe psychopathology draws attention to the qualitative differences between various modes of inhabiting the world rather than a normative understanding of one mode being an impoverished version of another. This understanding of autism and psychopathology ultimately invites phenomenology to interrogate not only typical but also diverging modes of being (see Carel, 2021) and consider how they may productively expand and nuance basic ideas and analyses of how we understand and relate each other bodily and intersubjectively.

Conclusion

In response to an increasing interest in the bodily and experiential aspects of autism from the perspectives of both autism research and phenomenology, this paper has explored the relationship between sensory and social experience in autism. By drawing on qualitative data from an ongoing phenomenological study on social experience in autism, I have argued that sensory differences in autism affect the way social encounters appear in autistic experience on a pre-reflective level. Through an analysis informed by phenomenological accounts of intersubjectivity and perceptual experience, three aspects of how sensory differences affect autistic social experience were identified.

First, the diverse social experiences recounted by research participants revealed how social encounters for autistic persons can manifest as sensorially disturbing and chaotic events. These events appeared with a blurred distinction between the thematized and the tacit in perception, creating an experience of the social situation as experientially invasive and unpredictable.

Second, in this sensorially imminent and approaching world, the embodied expressions of the other appeared alien and with an affective tonality of threat, disrupting the sense of familiarity with others and sense of security in social situations. Thus, sensory differences in autism destabilize the appearance of the other person as a meaningful expressive unity, leaving an experience of opacity and inaccessibility of social meaning that disturbs the possibility of social engagement.

Third, participants described practices of deliberately and actively seeking out social meaning in an overwhelming social situation and, in this way, reconnecting to other people when faced with the experience of their unfamiliarity and unpredictability. One strategy relied on sensory absorption, whereby an experiential distinction between figure and ground was established by actively pursuing perceptual significance. Another strategy applied reflective resources to understand the embodied expressions of others to a sense of footing in a deeply disorienting encounter with another person.

This analysis contributes to emerging phenomenological approaches to autism by pointing to specific ways in which sensory differences are implicated in autistic disturbances in bodily being-with-others and stresses the importance of looking at embodied intersubjectivity in terms of its sensory dimensions. By approaching social encounters as sensory and perceptual events, social experience is emphasized as an inherently and irreversibly world-involving phenomenon. This highlights the importance of looking at how contextual and situational elements affect the manifestations of autism and further on the extent to which sensory differences affect autistic experience of the world and others. In addition, the account of sensory and social experience forwarded in this paper pointed to various practices of regaining a sense of perceptual and social grip as forms of bodily auxiliary that mediated a sense of presence and footing in an otherwise chaotic and unpredictable social world. This emphasized the potential role of activity in maintaining a sense of intuitive grasp on social meaning and indicates an important avenue for future

research in exploring how such activity may help understand other aspects of autistic social experience and practice.

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References

- American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders. 5th edition*. American Psychiatric Publishing.
- Asperger, H. (1991). 'Autistic psychopathy' in childhood. In Frith, Uta. (ed.) *Autism and Asperger Syndrome*. Cambridge, MA: Cambridge University Press, pp. 37–92.
- Bar, R. (2020). The Forgotten Phenomenology: “Enactive Perception” in the Eyes of Husserl and Merleau-Ponty. *Journal of French and Francophone Philosophy*, 28, 53–72.
- Baranek, G.T., Wakeford, L. and David, F.J. (2008). Understanding, assessing, and treating sensory-motor issues. In *Autism spectrum disorders in infants and toddlers: Diagnosis, assessment, and treatment*. New York, NY: The Guilford Press, pp. 104–140.
- Baron-Cohen, S., Leslie, A.M. and Frith, U. (1985). Does the autistic child have a “Theory of Mind”? *Cognition*, 21, pp. 37–46.
- Biklen, D. et al. (2005). *Autism and the Myth of the Person Alone*. New York, NY: NYU Press.
- Boldsen, S. (2021). Social interaction style in autism: an inquiry into phenomenological methodology. *Journal of Phenomenological Psychology*, 52(2), pp. 1–35.
- Boldsen, S. (2022b). Material encounters. A phenomenological account of social interaction in autism. *Philosophy, Psychiatry, & Psychology*, 29(3), pp. 191–208.
- Botha, M. (2021). Academic, Activist, or Advocate? Angry, Entangled, and Emerging: A Critical Reflection on Autism Knowledge Production. *Frontiers in Psychology*, 12.
- Botha, M., Hanlon, J., & Williams, G. L. (2021) Does Language Matter? Identity-First Versus Person-First Language Use in Autism Research: A Response to Vivanti. *Journal of Autism and Developmental Disorders*, 1–9.
- Boyd, B., McDonough, S, and Bodfish, J. (2012). Evidence-Based Behavioral Interventions for Repetitive Behaviors in Autism. *Journal of Autism and Developmental Disorders* 42(6):1236–1248.
- Brown, L. X. Z. (2011). Identity-First Language, *ASAN: Autistic Self-Advocacy Network*. <https://autisticadvocacy.org/about-asan/identity-first-language/>
- Carel, H. (2021) Pathology as a phenomenological tool. *Continental Philosophy Review*, 54(2), 201–217.
- Cesaroni, L. and Garber, M. (1991). *Exploring the experience of autism through firsthand accounts*, *Journal of Autism and Developmental Disorders*, 21(3), pp. 303–313.
- Dakopoulos, A. and Jahromi, L. (2019). Differences in sensory responses among children with autism spectrum disorder and typical development: Links to joint attention and social competence. *Infant and Child Development*, 28(1).

- de Jaegher, H. (2013). Embodiment and sense-making in autism. *Frontiers in Integrative Neuroscience*, 7, 15.
- de Jaegher, H. (2021). Seeing and inviting participation in autistic interactions. *Transcultural Psychiatry*.
- de Jaegher, H., & di Paolo, E. (2007). Participatory sense-making: An enactive approach to social cognition. *Phenomenology and the Cognitive Sciences*, 6(4).
- Donnellan, A.M., Hill, D.A. and Leary, M.R. (2013). Rethinking autism: implications of sensory and movement differences for understanding and support. *Frontiers in Integrative Neuroscience*, 6, 124.
- Eigsti, I.-M. (2013). A Review of Embodiment in Autism Spectrum Disorders. *Frontiers in Psychology*, 4, 224.
- Englander, M. (2020). Phenomenological psychological interviewing. *The Humanistic Psychologist*, 48(1), 54–73.
- Englander, M. and Morley, J. (2021). Phenomenological psychology and qualitative research. *Phenomenology and the Cognitive Sciences*.
- European Commission (2018). *Ethics in Social Science and Humanities*. Bruxelles / Luxembourg.
- Ferrer de Luna, J. (2019). Intersubjectivity in infancy: A second-person approach to ontogenetic development. *Philosophical Psychology*, 32(4), 483–507.
- Fournier, K.A. et al. (2010). Motor coordination in autism spectrum disorders: A synthesis and meta-analysis. *Journal of Autism and Developmental Disorders*, 40(10), 1227–1240.
- Frith, U., & Happe, F. (1999). Theory of Mind and Self-Consciousness: What Is It Like to Be Autistic? *Mind and Language*, 14(1), 82–89.
- Fuchs, T. (2010). The psychopathology of hyperreflexivity. *Journal of Speculative Philosophy*, 24(3).
- Fuchs, T. (2015). Pathologies of Intersubjectivity in Autism and Schizophrenia. *Journal of Consciousness Studies*, 22(1), 191–214.
- Gallagher, S. (2001). The practice of mind: Theory, simulation or primary interaction? *Journal of Consciousness Studies*, 8(5–7), 83–107.
- Gallagher, S. (2004). Understanding Interpersonal Problems in Autism: Interaction Theory as An Alternative to Theory of Mind. *Philosophy, Psychiatry, & Psychology*, 11, 199–217.
- Gallagher, S. (2018). A Well-Trodden Path: From Phenomenology to Enactivism. *Filosofisk Supplement*, 3.
- Gibson, J. J. (1979). *The Ecological Approach to Visual Perception*. Houghton Mifflin.
- Giorgi, A. (2009). *The descriptive phenomenological method in psychology: a modified Husserlian approach*. Pittsburgh, Pennsylvania: Duquesne University Press.
- Grandin, Temple. (2006). *Thinking in pictures: and other reports from my life with autism*. London, England: Bloomsbury.
- Hale, M. and Hale, C. (1999). *I had no means to shout!* Bloomington, IN: 1st Books.

- Happe, F., & Frith, U. (2006). The weak coherence account: Detail-focused cognitive style in autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 36(1), 5–25.
- Hermelin, B. and O'Connor, N. (1970). *Psychological experiments with autistic children*. Oxford, England: Pergamon Press.
- Hobson, Peter. (2002). *The cradle of thought: Exploring the origins of thinking*. London: Macmillan.
- Høffding, S. and Martiny, K. (2016). Framing a phenomenological interview: what, why and how. *Phenomenology and the Cognitive Sciences*, 15, 539–564.
- Husserl, E. (1982). *Cartesian Meditations. An Introduction to Phenomenology*. The Hague: Martinus Nijhoff Publishers.
- Husserl, E. (1989). *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy - Second Book: Studies in the Phenomenology of Constitution*. Kluwer Academic Publishers.
- Hutt, C. et al. (1964). Arousal and Childhood Autism, *Nature*, 204(4961), 908–909.
- Iannaccone, A., Savarese, G., & Manzi, F. (2018). Object Use in Children with Autism: Building with Blocks from a Piagetian Perspective. *Frontiers in Education*, 3.
- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217–250.
- Køster, A. (2021). The felt sense of the other: contours of a sensorium. *Phenomenology and the Cognitive Sciences*, 20(1), pp. 57–73.
- Krueger, J. (2018). Direct Social Perception. In A. Newen, L. de Bruin, & S. Gallagher (Eds.), *The Oxford Handbook of 4E Cognition*, 301–320.
- Krueger, J. (2021). Finding (and losing) one's way: autism, social impairments, and the politics of space. *Phenomenology and Mind*, 21:20-33.
- Kuno-Fujita, A. et al. (2020). Sensory Processing Patterns and Fusiform Activity During Face Processing in Autism Spectrum Disorder. *Autism Research*, 13(5), 741–750.
- Lane, A.E. et al. (2010). Sensory Processing Subtypes in Autism: Association with Adaptive Behavior. *Journal of Autism and Developmental Disorders*, 40(1), 112–122.
- Leekam, S. et al. (2007). Describing the Sensory Abnormalities of Children and Adults with Autism. *Journal of autism and developmental disorders*, 37(5), 894–910.
- Leong, D.-J. (2016). *Scheherazade's Sea - autism, parallel embodiment and elemental empathy*. The University of New South Wales.
- Leudar, I. & Costall, A. (2009a). Introduction: Against 'Theory of Mind'. In: Leudar, I. & Costall, A. (eds.). *Against Theory of Mind*. Hampshire, UK: Palgrave Macmillan
- Lin, L.-Y. (2020). Activity Participation and Sensory Processing Patterns of Preschool-Age Children With Autism Spectrum Disorder. *American Journal of Occupational Therapy*, 74(6).
- Livingston, L.A. et al. (2019). Good social skills despite poor theory of mind: exploring compensation in autism spectrum disorder. *Journal of Child Psychology and Psychiatry*, 60(1), 102–110.
- Livingston, L.A. et al. (2020). Quantifying compensatory strategies in adults with and without diagnosed autism. *Molecular Autism*, 11(1), p. 15.

- Malafouris, L. (2013). *How Things Shape the Mind*. MIT Press.
- Manzi, F., Savarese, G., Mollo, M., & Iannaccone, A. (2020). Objects as Communicative Mediators in Children With Autism Spectrum Disorder. *Frontiers in Psychology*, 11.
- Merleau-Ponty, M. (1964a). *Sense and non-sense*. Northwestern University Press.
- Merleau-Ponty, M. (1964b). *Signs*. Evanston, IL: Northwestern University Press.
- Merleau-Ponty, M. (2012). *Phenomenology of Perception*. Translated by D. Landes. Oxon-New York: Routledge.
- Milton, D. (2014a). Embodied sociality and the conditioned relativism of dispositional diversity. *Autonomy, the Critical Journal of Interdisciplinary Autism Studies*, 1(3).
- Milton, D. (2014b). Autistic expertise: A critical reflection on the production of knowledge in autism studies. *Autism*, 18(7), 794–802.
- Ornitz, E.M. (1974). The modulation of sensory input and motor output in autistic children. *Journal of Autism and Childhood Schizophrenia*, 4(3), 197–215.
- Ozonoff, S., Pennington, B. F., & Rogers, S. J. (1991). Executive function deficits in high-functioning autistic individuals: Relationship to theory of mind. *The Journal of Child Psychology and Psychiatry*, 32(7), 1081–1105.
- Pedersen, S., & Bang, J. (2016). Youth Development as Subjectified Subjectivity - a Dialectical-Ecological Model of Analysis. *Integrative Psychological & Behavioral Science*, 50.
- Petitmengin, C. (2006). Describing one's subjective experience in the second person: An interview method for the science of consciousness. *Phenomenology and the Cognitive Sciences*, 5(3–4), 229–269.
- Radulski, E. (2022). Conceptualising Autistic Masking, Camouflaging, and Neurotypical Privilege: Towards a Minority Group Model of Neurodiversity. *Human Development*, 66, 113–127.
- Ravn, S. (2021). Integrating qualitative research methodologies and phenomenology—using dancers' and athletes' experiences for phenomenological analysis. *Phenomenology and the Cognitive Sciences*.
- Regulation (EU) 2016/679 of the European Parliament and of the Council (2016). On the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). *Official Journal of the European Union*, L 119, pp. 1–88.
- Rietveld, E., Denys, D., & Westen, M. (2018). Ecological-Enactive Cognition as Engaging with a Field of Relevant Affordances: The Skilled Intentionality Framework (SIF). In A. Newen, L. De Bruin, and S. Gallagher (eds), *The Oxford Handbook of 4E Cognition*, pp. 41–70.
- Robertson, C.E. and Baron-Cohen, S. (2017). Sensory perception in autism. *Nature Reviews Neuroscience*, 18(11), pp. 671–684.
- Salamon, G. (2012). The Phenomenology of Rheumatology: Disability, Merleau-Ponty, and the Fallacy of Maximal Grip. *Hypatia*, 27(2).

- Sass, L. and Parnas, J. (2003). Schizophrenia, consciousness, and the self. *Schizophrenia Bulletin*, 29(3), pp. 427–44.
- Schilbach, L., Timmermans, B., Reddy, V., Costall, A., Bente, G., Schlicht, T., & Voegeley, K. (2013). Toward a second-person neuroscience. *Behavioral and Brain Sciences*, 36, 393–414.
- Shepherd, J. (2015). “Interrupted Interviews:” listening to young people with autism in transition to college. *Exchanges: The Warwick Research Journal*, 2, 249–262.
- Spaulding, S. (2015). On Direct Social Perception. *Consciousness and Cognition*, 36, 472–482.
- Thoma, S. and Fuchs, T. (2017). A Phenomenology of Sensus Communis: Outline of a Phenomenological Approach to Social Psychiatry. In Englander, M. (ed.) *Phenomenology and the Social Context of Psychiatry: Social Relations, Psychopathology, and Husserl’s Philosophy*. London: Bloomsbury Academic, pp. 137–160.
- Trevarthen, C. (1979). Communication and cooperation in early infancy: A description of primary intersubjectivity. In Bullowa, M. (ed.) *Before Speech*. Cambridge: Cambridge University Press, pp. 321–48.
- Vincini, S., & Gallagher, S. (2021). Developmental phenomenology: examples from social cognition. *Continental Philosophy Review*, 54, 1–17
- Vivanti, G. (2020). Ask the Editor: What is the Most Appropriate Way to Talk About Individuals with a Diagnosis of Autism? *Journal of Autism and Developmental Disorders*, 50(2), 691–693.
- Walker, N. (2019). *Transformative Somatic Practices and Autistic Potentials: An Autoethnographic Exploration*. California Institute of Integral Studies.
- Williams, D. (1992). *Nobody nowhere: the remarkable autobiography of an autistic girl*. London: Doubleday.
- Williams, E., Costall, A., & Reddy, V. (2018). Autism and Triadic Play: An Object Lesson in the Mutuality of the Social and Material. *Ecological Psychology*, 30(2), 146–173.
- World Health Organization (2018). *International statistical classification of diseases and related health problems* (11th Revision). Geneva: World Health Organisation.
- Woynaroski, T.G. et al. (2013). Multisensory speech perception in children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 43(12), pp. 2891–2902.
- Zahavi, D. (2005). *Subjectivity and Selfhood - Investigating the First Person Perspective*. Cambridge, MA: The MIT Press.
- Zahavi, D. and Parnas, J. (2003). Conceptual Problems in Infantile Autism Research: Why Cognitive Science Needs Phenomenology. *Journal of Consciousness Studies*, 10(9–10), pp. 53–71.

Chapter 6

Materiality and autistic social practices

Introduction

The article presented in this chapter, “Material encounters. A phenomenological account of social interaction in autism” (Boldsen, 2022b), presents data collected through participant observation in social groups for autistic adolescents and young adults and interviews with group participants. Since fieldwork stretched from the very beginning of this research project, the material presented has played a key role in forming this study’s understanding of autistic intersubjectivity and reflects a long and occasionally perplexing journey of trying to inhabit autistic social worlds. The article provides a phenomenological analysis of how social interaction is practiced in autism. Importantly, this focus required setting aside preconceptions about what “counts” as social interaction and enabled attention to the social dimensions of forms of interaction in which typical aspects of social communication, such as eye contact, conversation, and gestures, would seem limited or strained. The article thus contributes to this study’s understanding of autistic intersubjectivity by exploring and describing how social connectedness in autism is developed and sustained in alternative ways.

In this article, I study social interaction processes among autistic adolescents and young adults. This approach touches on a pervasive tendency in autism research to base studies of social interaction in autism on how autistic persons interact with typically developed peers, often in an experimental context. Here, the result is usually that disruptions of the interaction process are led back to social deficits on the part of the autistic person. Contrary to this approach, I start from the idea that social interaction should be studied as a reciprocal process. Concerning the notion of autistic intersubjectivity, studying the interaction between individuals with autism enables consideration of how particular ways of practicing “being social” emerge and unfold reciprocally between autistic persons.

Thematically, the article is framed around the long-standing problem of developing a unified approach to the heterogeneous and seemingly disconnected expressions of autism. Since Leo Kanner’s initial studies of autism in childhood, the way autistic persons interact with people and the way they interact with objects has been understood as distinct from each other, reflecting a rigid “material-social divide” (Williams et al., 2018, p. 146) still prevailing in autism research today. This framework was chosen to create an arena for rethinking autistic ways of interacting with others through their connection with material spaces. In this way, the critical assessment of the material-social divide in autism research provides an avenue for exploring autistic intersubjectivity through its connection to a particular style of perceiving and navigating the world.

Building on the phenomenological notion of intercorporeality coined by Maurice Merleau-Ponty, this article explores how autistic modes of social engagement are enacted through bodily attunement. Throughout the long tradition of phenomenological interest in intersubjectivity, the body has played a key role in conceptualizing social understanding

and interaction. Following this focus on embodiment, the face-to-face encounter has occupied a central role in phenomenological analyses of intersubjectivity (Osler, 2021). One of the main points in this article is that autistic intersubjectivity relies on the material environment in mediating bodily attunement in social interaction. This point stresses the need to explore the diversity of ways in which we can connect to others socially and suggests the potential of rethinking the notion of intercorporeality in terms of how inter-bodily systems are both situated in and mediated by shared engagement in a common world. The notion of autistic intersubjectivity is thus brought into focus as both meaningful in its own right and by drawing attention to and questioning our often tacit assumptions about what it means to be social.

Article 4

Material encounters. A phenomenological account of social interaction in autism

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Abstract

Since the birth of autism as a psychiatric category, autistic individuals have been described as preoccupied with the world of objects and detached from the world of subjects, thus marking a distinction between the ‘social’ and the ‘non-social’ still prevalent in autism research and diagnostic criteria. This article questions this distinction by examining the role of things in autistic forms of social interaction. Drawing on qualitative data from an ongoing qualitative and phenomenological study on social interaction among youth with autism, I argue that material things enjoy a sustaining and facilitating role in autistic social interaction for two reasons: First, by being sensible things open to tactile, auditory, and visual engagement, and second, by being things that incorporate normative practices. I argue that this relation between the material and the social, in which the latter is mediated by the former, is beneficial to individuals with autism by exploiting a particular relation to materiality to consolidate a shaky attunement to the social world. I propose a materially mediated mode of interaction guided by the approaches to perception, embodiment, and materiality developed by Maurice Merleau-Ponty and James Gibson. This account puts pressure on the phenomenological emphasis on the face-to-face encounter and brings intersubjectivity into view as a many-faceted phenomenon realizable not only through interbodily dynamics but also through the material landscapes situating social encounters.

Keywords: Autism, social interaction, phenomenology, materiality, sensory experience, affordances

Introduction

Leo Kanner (1943) and Hans Asperger (1944/1991) each noted a striking difference in how autistic individuals interact with persons and interact with objects. According to these autism research pioneers, the autistic child is largely detached from the social world, barely noticing or showing any interest in social contact with other people. Whereas persons are often treated instrumentally as if they were objects, the objective world easily draws in the autistic individual, who often displays an unusual fascination with things and a rigid insistence on sameness in the physical environment.

This distinction between a world of objects and a world of persons has been maintained in autism research, notably in the current diagnostic criteria, which delineate two aspects of autism: (1) deficits in the reciprocal, communicative, and relational aspects of social interaction, and (2) ‘non-social’ differences such as unusual preoccupation with objects, desire for routine and sameness, and sensory abnormalities (World Health Organization, 2018). Furthermore, the explanatory power of prominent autism theories usually pertains to only one of these domains. For example, the theory of mind hypothesis of autism applies exclusively to autistic difficulties related to social understanding and interaction (Baron-Cohen, Leslie, & Frith, 1985). In contrast, the theory of executive dysfunction primarily aims to explain symptoms within the domain of restricted and repetitive patterns of behavior (Ozonoff, Pennington, & Rogers, 1991).

Despite the widespread recognition of differences in the autistic person’s interaction with things and interaction with people, the relation between this intersubjective and material mode of engagement has not been thoroughly addressed (Williams, Costall, & Reddy, 2018). This article questions the distinction between materiality and intersubjectivity as it relates to difficulties in autism by examining the role of things in autistic forms of social interaction and clarifying how they might support, modulate, and constrain social processes in autism. I will argue that things enjoy a sustaining and facilitating role in autistic social interaction for two reasons: First, by being sensible things, open to tactile, auditory, or visual engagement, thus allowing for sensory and affective re-connection to the world despite experiences of uncertainty and threat. Second, by being things that incorporate normative practices by providing particular spatial and temporal structures that facilitate bodily attunement in social encounters. This analysis is motivated by emerging phenomenological (Fuchs, 2015; Gallagher, 2013; Zahavi & Parnas, 2003), enactivist (De Jaegher, 2013), and externalist (Krueger, 2021; Krueger & Maiese, 2018) approaches to autism inspired by contemporary discussions within philosophy of mind and cognitive science. These novel approaches each takes issue with the predominantly cognitivist approach prevalent in autism research and develop an understanding of autism as more than what goes on ‘inside the heads’ of autistic individuals by pointing to embodied subjectivity, situated and dynamic interaction, and the material underpinnings of cognitive processes.

Drawing on qualitative data from an ongoing qualitative and phenomenological study on social interaction among youth with autism, I argue that material objects enjoy a particular potential of facilitating different forms of autistic social connectedness. This illustrates a relationship between intersubjectivity and materiality in which material things may mediate and embody ‘the social,’ and conversely, where sociality manifests through material engagement. I will propose a materially mediated mode of interaction guided by the approaches to perception, embodiment, and materiality developed by Maurice Merleau-Ponty (2012) and James Gibson (1979) and suggest opening up the phenomenological notion of intercorporeality originally described by Merleau-Ponty (1968).

Methodology

The following analysis draws on empirical material from a qualitative and phenomenological study on social interaction in autism. Responding to a call for research approaches that explore the experiences and perspectives of autistic individuals, this study investigates how social interaction processes are experienced and practiced from an autistic perspective (Nilsson et al., 2019; Robledo, Donnellan, & Strandt-Conroy, 2012). Through extensive fieldwork, including participant observation and qualitative interviews in social groups for young persons with autism, this study explored social interaction through its experiential, pre-reflective, and sensory features and as a particular style of contextual and embodied engagement realized between autistic persons (Boldsen, 2021). Keeping with the basic idea of phenomenological research as a disciplined focus on how phenomena present themselves in experience, the practice of ‘bracketing’ was a fundamental part of the research process both as an attitude of continuous openness to and a means to set aside claims, theories, assumptions, or explanations (Finlay, 2009) about autistic social interaction.³⁰

Social groups for young people with autism, with their dual ambition of both facilitating friendship with peers and providing social competence training, are becoming an increasingly popular way to address social difficulties connected with autism in youth and adulthood (Bottema-Beutel, Mullins, Harvey, Gustafson, & Carter, 2016). The participants in the autism groups are adolescents or young adults with autism or Asperger’s Disorder, in addition to prevalent comorbid psychiatric problems such as depression, anxiety, ADHD/ADD, and OCD. The participants have varying degrees of everyday life functioning. Some live independently, study, or work regular jobs, and some live in sheltered housing or with their parents and manage their lives with a high degree of support

³⁰ Recently, this practice of bracketing, as it is connected to the Husserlian method of the epoché and reduction, has been the topic of intense discussion in the context of qualitative research methodology (for an overview, see Giorgi (2021), Morley (2019), and Zahavi (2019)). It is beyond the scope of this paper to explore this recent controversy further, but for a discussion of the relation between phenomenology and qualitative methodology in the context of autism research, see Boldsen (2021).

from the municipality. A common denominator for the participants in this study is immense social difficulties, such as relating to other people, responding appropriately to social situations, understanding social rules and norms, and a high degree of social anxiety in relation to these difficulties. Although one could be critical of such institutional gathering of psychiatrically categorized individuals (which has historically been associated with stigmatization, see Goffman, 1961), it is beyond the scope of this article to discuss the advantages or disadvantages of such peer-based strategies in autism practice. Instead, the aim was to study autistic social interaction in the material and normative environment of such autism groups and through experiences of social connectedness and disconnectness both in and outside this particular context.

Data collection included eighteen months of fieldwork in two Danish socializing and networking groups for adolescents and young adults with autism: one group for women between 18 and 27 years of age and one mixed-gender group for adolescents between 15 and 21, each consisting of 10-15 participants. Fieldwork in the autism groups included participant observation at the biweekly group meetings, day trips, and sleepovers and in-depth qualitative interviews with eleven participants. Interviews were conducted during the biweekly group meetings to accommodate the participants' needs for structure, stability, and sense of security regarding the process of research participation (Robledo et al., 2012).

As part of conducting fieldwork in the autism groups, I participated in and observed various planned and spontaneously emerging social activities, such as cooking, playing board games, watching movies, conversations, and sports activities. These observations focused on social interaction as something going on between autistic individuals rather than something ascribable to individual competence or performance. Looking at both processes of attunement and disconnectedness, I focused observations on the character, dynamics, and situatedness of social interaction processes between group participants, including interbodily movements and dynamics and their embeddedness in concrete material environments and normative practices. This prolonged and active engagement in the autism groups where the researcher adopts a first-, second-, and third-person perspective forms a basis of contextual knowledge about the practice of social interaction between autistic individuals and the situations, norms, and habits in which such interactions are embedded (Ravn, 2017). As Clifford Geertz emphasizes with his concept of thick description, behavior cannot be grasped through a phenomenistic stance that severs it from its cultural context but only through complex webs of meaning in which it is embedded (Geertz, 1973). Such contextualized knowledge that relies on the researcher's embodied and sensory awareness (Pink, 2009) is useful for generating situationally sensitive observations of social interaction and facilitating rich descriptions of the experiential features of social interaction through interviewing. This emphasis on researcher subjectivity during fieldwork resonates with Scott Churchill's approach to empirical phenomenological research as an embodied second-person stance that enables an intuitive under-

standing and familiarity with the other's concrete and situated experiences and perspectives (Churchill, 2017). Churchill's point furthermore stresses how the phenomenological practice of bracketing is not an attempt to eliminate the researcher's subjectivity and embodied point of view as it forms an important access point to the experiences of research participants.

Experiential features of social interaction were furthermore pursued through a semi-structured approach to qualitative interviewing guided by aspects of the interview techniques advocated by both phenomenological psychology (Englander, 2020) and the micro-phenomenological interview proposed by Claire Petitmengin (2006). As has been emphasized by phenomenologists and empirical researchers alike, using qualitative interviews within a phenomenological framework requires the facilitation of experiential descriptions rather than explanations or opinions (Englander, 2020). This approach has been cashed out by focusing interview questions on concrete instances of social interaction and facilitating a degree of elicitation of the experience in question by working through its different sensory features (Petitmengin, 2006). Prior to the interviews, a semi-structured interview guide was developed that focused on concrete social situations and the sensory, bodily, and material features that constituted negative and positive social experiences. Thus, in addition to the open-ended questions characteristic of a phenomenological approach to qualitative interviewing (Englander, 2020; Kvale & Brinkmann, 2009), concrete and precise questions about specific social encounters were pursued, such as "what can you hear/see around you," "how would you describe the sound of his/her voice," or "how can you feel this in your body." After each interview, and in dialogue with developing understandings of autistic practices of interaction achieved during fieldwork, the interview guide was refined and specified as new themes and aspects of social experience in autism emerged. In this way, the researcher's contextual knowledge of the phenomenon was crucial as a means to participate in the collaborative process of recalling, exploring, making sense of, and describing experiences of social interaction during interviews (Englander, 2020; Höffding & Martiny, 2016).

In the following analysis of the role of things in autistic social interactions, I will present excerpts from both observational and interview-based data reflecting different perspectives on the phenomenon of social interaction. The analytical work preceding this presentation consisted of an ongoing and iterative dialogue between these data sources. Interview transcripts and field notes were coded according to emerging themes related to participants' social experiences and interactions, such as "being part of a group," "closing down," or "silence." These themes constituted emic categories that reflected central aspects of the research participants' (inter)subjective experiences and practices in a contextually sensitive way (Hammersley & Atkinson, 2007). As part of the researcher's progressive familiarity with the phenomenon, data were re-organized into codes that connected the participants' experiences of social interaction with more general themes reflecting the theoretical and analytic interest of the researcher, such as "tactile experience

of the other” or “spatiality and social norms.” This process enabled the phenomenological elucidation and discussion of the experiential structures underlying descriptions of social interaction presented in the data (Høffding & Martiny, 2016; Ravn, 2021). Subsequently, data excerpts were chosen to reflect the general experiential features characteristic of analytic themes and exemplify how their structures and meaning could be elucidated in dialogue with phenomenological theory.

This study was reviewed by the Danish Committee System on Health Research Ethics, and study oversight was provided by Roskilde University. Following the guidelines on research ethics in the social sciences and humanities provided by the European Commission, the following steps were taken to ensure the ethical integrity of this study (European Commission, 2018). Informed consent, and the possibility to assent, were sought during the continuous process of fieldwork, where gradually increased familiarity between researcher and research participants formed the basis of trust. In addition, all research participants and their parents, if underage, signed a consent form. Data were treated according to the EU General Data Protection Regulation (Regulation (EU) 2016/679 of the European Parliament and of the Council, 2016), pseudonyms for the research participants were used, and place names and other details enabling the identification of research participants were changed. Importantly, given the psychological vulnerability of the research participants in this study, great care was taken to ensure that this vulnerability was not exacerbated due to this research. The data collection process was designed according to the needs and preferences of research participants, and all were given the opportunity to debrief with an employee connected to the autism groups with whom they felt safe.

Tapping feet, guitars, board games, and virtual dance partners

Autistic individuals are often described as inflexible, rigid, and highly reliant on structure. As Asperger noted in one of his case studies, “certain things always had to be in the same place, and certain events always had to happen in the same manner” (Asperger, 1944/1991, p. 60). This study began with an interest in how autistic persons experience and practice social interactions. In the initial stages of fieldwork in the autism groups, this interest centered on how social interactions became structured by the group participants and the pedagogical staff organizing the groups. With only rare exceptions, group meetings were structured in the following manner:

Program of the evening

- 4.30: Arrival at the center, welcome, and presentation of the evening’s program.
- 5.00: Activities: Cooking team (menu: pasta salad), board games, ping-pong, or creative projects.
- 6.00: We eat dinner and clean up afterward.
- 6.30: Break
- 7.00: Conversation group. The topic is “autism and youth.”
- 7.30: Break and dessert

8.00: Free conversation

8.30: Good night!

Although the activities varied slightly, the structure and minute planning of the evening were repeated from week to week. Deviations from the schedule were rare, and very little spontaneous social activity went on in between and around these scheduled and highly rule-based activities. Unless some activity had been introduced and launched by the employees, the group participants usually sat silently, each occupied by scrolling on their smartphones, reading, or perhaps just sitting. However, during my visits to the autism groups, I became aware of different forms of interaction in apparently a-social situations, as illustrated below.

The tapping foot

After the program had been presented and the group had spread out at different activities, Mads, Mark, Line, and I remained in the sofas. Line picks up the guitar and starts finger-picking some melodies. Mark returns to his math and sits bent over his sheet of paper on the sofa table. Mads gets up and prepares a cup of tea. Apart from the sound of the guitar tunes, the room is silent. After a long stretch of time passes, while Line plays the guitar, Mads stirs his tea, and Mark writes his calculations, I feel tense. But Line plays on, Mark calculates on, and Mads calmly sips his tea. This is when I notice Mark's foot. While he is filling out a sheet of paper with numbers written in binary, it taps silently on the floor. Initially, I think it is just one of those movements that one does while unaware, but then I notice the foot's rhythmicity. Mark is tapping his foot in cadence with Line's guitar playing.

Despite the awkwardness and apparent lack of social engagement in this situation, Mark's foot interrupts the silence and institutes a common rhythmicity between his activity of writing and Line's guitar play. The questions that arise from this example are what kind of 'social work' Line's guitar and Mark's foot are doing? I will examine this question by presenting a series of observations that exemplify the relation between objects and social interaction between young adults with autism.

The guitar

Line and Helene are sitting on one of the red sofas, bodies turned toward each other. Helene holds an acoustic guitar, and tunes emanate from the space between them. Both sets of eyes are turned toward the guitar in Helene's lap as Line is teaching her to play a simple melody. Helene is holding the guitar, and Line is leaning toward her. They are shifting between looking intently at the guitar and each other, their gaze meeting briefly before returning to the guitar. Line shows Helene what tunes to play by leading her fingers from string to string along the neck of the guitar.

Etymologically deriving from the Greek *autos*, meaning 'self,' autism is believed to be characterized by self-absorption and withdrawal to inner life. Historically deriving from the notion of schizophrenic autism coined by Eugen Bleuler, autism was born as a disconnection from the outside world (Bleuler, 1911/1950). Usually, both Line and Helene

seem to embody these characteristics. Line is most often absorbed by scrolling on her smartphone or playing her guitar. Helene favors sitting in the periphery of the common space and always retreats to a faraway room when dinner calls for gathering of the group. Although not driven by words but rather by movements, the two quiet and self-enclosed girls communicate. Helene's movements follow Line's, which, in response, adjust to align with hers. Their bodies attune to each other as they fine-tune the melody that reverberates from between them. In their joint engagement of playing the guitar, Line and Helene mutually embody each other in a process where Helene's movements act as an extension of Line's and vice versa. The delicate calibration of joint movements between Line and Helene can be described in Merleau-Pontian terms as an intercorporeal dialogue where movements align with each other to form an interbodily system within which the guitar can be played. According to Merleau-Ponty,

My two hands "coexist" or are "compresent" because they are one single body's hands. The other person appears through an extension of that compresence; he and I are like organs of one single intercorporeality (Merleau-Ponty, 1964, p. 168).

In the same way that I experience my hand as both touching and touched, I encounter the Other's body as both experienced and experiencing. In other words, his subjectivity is co-present in my experience of him. Merleau-Ponty describes intersubjectivity as a process of intertwining in which the bodies of interactants are coupled. Qualifying Helene and Line's interaction further, we could say that their bodies are coupled by the guitar. The guitar is what intertwines their movements so that they are no longer separate but embraced in a collective happening of playing. Furthermore, the guitar and its tunes provide an external spatial and temporal structure that guide the micro-processes of the interaction between Line and Helene. By indicating both where and when Helene and Line should move their fingers, arms, and gaze, the guitar provides a spatiotemporal framework for their interaction. A paradigmatic example of how such structuring permeates the interactions in the autism groups is the frequent activity in the autism groups of playing board games.

The board game

One of the small café tables in the periphery of the common room is occupied by Hanna and Mads. Between them sits a board game filled with black and white circular pieces. They both lean over the table, looking intently at the board between them and taking turns moving the pieces around. The only sound from the table is the soft clacking of the little black and white plastic pieces as they are being set down, moved, turned, or tossed aside. Neither Hanna nor Mads speak a word. Ten minutes, perhaps more, pass by as their arms successively move across the table, briefly pausing over different positions on the board, hovering hesitantly, diving down to make a move, and finally withdrawing again to make room for the other person's arm already waiting at the opposite side of the table.

In this example, the board game offers a map, a spatial and geographical structure showing where different movements should begin and end, and a site where their actions can

unfold. In addition, the game offers a set of directions to how and when movements and actions should be performed and in what temporal order. By providing an explicit dynamic for the interaction to follow, the game affords a joint structure to the players' disjoint movements and an explicit framework for reciprocating and responding to each other. Similar to how the pedagogical staff structures social practices through repetition of particular activities ordered by an established program, material things, in this case, a board game, structure the processes of the interaction between the participants. The concrete social interactions are thus embedded in a broader spatiotemporal context represented by the program of activities, which provides an overall structure that helps participants navigate the broader social space of the premises and the wider time frame of the group meeting. Thus, on both the contextual level and the micro-level of concrete social encounters, interactions were structured around material things.

In the following, I will further qualify how objects can enable the kind of reciprocity of movement characteristic of social interaction as described by Merleau-Ponty. In this example, the autistic women's group is on a day trip to the Danish museum of rock music.

Dance partners

As we explore the museum, a few of the women and I enter a large room lit up only by colorful lights moving swiftly around on the floors and walls as if in a disco. An enormous screen fills up one of the walls, and Ina and Viola are each occupying a spot on the floor marked by a circle in front of it. They are dancing, but their bodies are both turned toward the screen on which their silhouettes are projected. There is a kind of 80s or 90s hip-hop music playing. Their movements are noticeably de-synchronized, Ina moving somewhat more slowly and fluently while Viola's movements are more sudden and slightly abrupt, as if always a little too late for the beat. Finally, I notice a third moving figure on the screen, and I realize that this virtual dance partner is really the one doing the dance. Ina and Viola follow its lead, synchronizing their movements with it and following as best they can.

When I observed Ina and Viola dancing in the museum, it was not immediately apparent that they were dancing together. Their bodies were not facing each other, and their eyes were directed at the screen rather than the other person. Their movements did not reach out toward each other to form a shared space, and their gestures and body postures did not align mutually. Yet, they moved together, although with an awkward kind of synchrony.

The bodily communication that ensues between them is governed by the virtual dance partner rather than the direct embodied presence of the other. They dance together but with a 'togetherness' mediated by something else. As it seems, the object draws their movements to them, unites them, and facilitates their mutual participation. In this case, social interaction is something that takes place "out there" between interacting bodies. Merleau-Ponty describes intercorporeality as the formation of a system in which "the other's body and my own are a single whole, two sides of a single phenomenon," and

further, this system as one in which it is “as if the other person’s intention inhabited my body, or as if my intentions inhabited his body” (Merleau-Ponty, 2012, p. 370). The cases discussed here emphasize how this reversibility can be achieved in and through interaction with things.

From this initial analysis of the role of objects, we can delineate two relevant aspects of materiality: First, objects are things that can be sensed. They can be heard through a melody played on the guitar, and they can be felt by the sliding of fingers along with the wood of the guitar’s body and neck and the resistance of the metal and plastic strings. Second, objects are things with a normative dimension in the sense that there are ways in which they are supposed to be handled. There is a way in which board games, guitars, and dance games are played; rules must be followed for the game or the instrument to be played correctly. In the following, I will explore this sensory and normative aspect of objects and discuss how they may account for the particular role of objects in autistic social interactions. In addition, I will discuss how space and time as fundamental structures of materiality contribute to the specific ways in which autistic sociality can be scaffolded.

Materiality and the senses: “It is as if everything around you melts together”

Sensory differences in autism have been reported consistently throughout the history of autism research, from the earliest descriptions of autism (Kanner, 1943), in autobiographical and first-person accounts (Cesaroni & Garber, 1991; Grandin, 2006), and in recent research (Boldsen, 2018; Donnellan, Hill, & Leary, 2013; Hannant, Cassidy, Tavassoli, & Mann, 2016). Although differences in sensory processing and experience are estimated to occur in 90% of autistic individuals, these features have only recently been recognized as integral to the autism spectrum (Robertson & Baron-Cohen, 2017; World Health Organization, 2018). As I will argue in the following, the fact that objects are things that can be touched, heard, seen, smelled, and tasted enables them to stabilize a disorganized sensory experience and grants them a potential role in sustaining social interactions between autistic individuals.

Johanne, a 26-year-old woman with Asperger’s Disorder, describes the auditory experience of being at a family gathering to illustrate how social situations are often sensorially stressful for her.

It is like a constant blanket of sound that just keeps coming at you until you are totally disoriented. [...] You can’t really get away, and it’s like a sea, that just... It’s just everywhere, and you can’t get away. [...] I don’t know if the sounds, in a way, are more penetrating... As if they are reaching a deeper layer of the psyche or that they don’t just pass by.

On the one hand, what Johanne describes is a typical social event, where there naturally are voices and movements around her. On the other hand, she describes a world so dense and intrusive that it cannot be held at a distance. As it seems, Johanne's experience reveals a world that has not yet become a world but remains a sea, a blanket, or a disorganized field that has not yet been parsed into definite objects distinguishable from her as an experiencing subject.

Nina, a 17-year-old woman with Asperger's Disorder, describes how tactile hypersensitivity is related to an experience of the world as not only overwhelming as in Johanne's description but as essentially unpredictable. In comparison to the sensory game *What's in the Box?* she describes the experience of expecting the sensation of a stranger's touch.

It's as if you're presented with a box in which you know there's something inside, and people want you to feel what it is. It's the same feeling of "ohhh no, something is there!" and you don't know what is in the box or what this sensation is going to feel like [...] Some have very rough hands, some are very soft, and others' are almost a little wax-like as if their hands are greasy [...] So you don't know what is reaching for you, and you don't know what this person will do with your hand.

Closely associated with the experience of the world as overwhelming is the experience of an unfamiliar world that sensorially cannot be anticipated. What is revealed in the above descriptions of sensory experience in autism is a world that is violently there, although devoid of significance and familiarity. Furthermore, corresponding to such experiences is an affective sense of disconnection from the world and other people that becomes imbued with a sense of insecurity. In this way, sensory experience in autism is associated with a diminished affective attunement to and an unstable sense of feeling at home in the world with other people, which consequently lose their status as fields of possible interaction. As is pointed out by Johanne below, associated with this experience is a sense of withdrawal from the world and others.

I can get so distant and almost isolated from what happens around me because I just shut down. [...] I withdraw more into myself, stopping any interactions with others... or just shut down. Then I notice the sounds less, but I also notice less of what is going on around me.

In Johanne's case, the oppressiveness of sensory experience forces a sort of detachment from the sensible world by withdrawing into a private space. Thus, one way of handling the experience of a chaotic and sensorially invasive world is to retreat from and, in that way, shut out what is felt as intrusive. As Merleau-Ponty has emphasized throughout his writing, the world is experienced as meaningful through our embodied and perceptual engagement. Thus, perception is an activity in which subjectivity is involved bodily in the world (Merleau-Ponty, 2012). Similarly, Gibson construes perception as a gathering of the physical environment and the mode with which a person interacts with it (Gibson, 1979). From the perspectives of Merleau-Ponty and Gibson, what Johanne describes is a

break in this relationship of mutuality in which the world appears intuitively meaningful to a moving, sensing body. Through this break, not only the body is petrified but also the world, which ceases to develop into a field of possible actions. Thus, Johanne practices an active refusal and silencing of a world that is too loud and fast by modulating her own activity. In this way, sensory differences interfere with access to affordances in the sense that the world and other people do not provide a feeling of attunement, resulting in behavioral and affective withdrawal.

Below, Line, a 17-year-old with Asperger's Disorder, describes an aspect of sensory experience where the world as an environmental resource for interaction is transformed through her effort to re-attune to the world, in this case by holding on to and stabilizing a chaotic sensory experience.

Everything is just turning and turning around you... And I actually have a sort of urge to really know where everything comes from. Every time I sense movement, I look to see what it is, or if I hear a sound, I look to see where it comes from. [...] I try to focus on something different. It can be looking out the window or looking down at a... the glass of water in front of me. [...] I don't know... Maybe it makes sense somehow, so I can calm down a little by focusing on some object and say, 'okay, now it is this thing, which is important.'

In addition to provoking the sort of bodily shutdown described by Johanne, hypersensitivity can also be related to a form of hyper-attention or sensory seeking, expressed as the impulse to see, hear, or touch everything: to hold on to the sensory world rather than letting it overwhelm you. The glass of water standing in front of Line at the dinner table acts as a form of sensory anchor. By singling out the water glass, in her own words, by deeming it important, she wrenches significance from the world, which in turn allows a form of affective and behavioral re-attunement and sense of presence.

Sensory experience and affectivity: Disconnection and re-attunement

As we have seen, sensory differences in autism render the world overwhelming, unfamiliar, and sometimes threatening and intrusive. The experience of voices as too loud or touch as too intense is a change in which the world is felt or a change in the affective attunement to the world. The descriptions of sensory differences above revealed the importance of considering the role played by affectivity in autistic experience.³¹ In her analysis of autism and affective framing, Michelle Maiese argues that perceptual and motor differences disturb the autistic person's capacity for bodily attunement and experience of affective salience (Maiese, 2013). This resonates well with the above descriptions of a

³¹ Here, I draw on a phenomenological approach to affectivity, which understands emotional experiences as embodied and relational phenomena that mediate our felt sense of connection and emotional resonance with the world and other people (Fuchs, 2013).

felt sense of disconnection from the world and other people, where the experience of being overwhelmed by the world essentially renders the world meaningless and unpredictable. According to Maiese, this disconnection, where autistic persons shut out the world and other people by withdrawing or averting their gaze, breaks the circle of mutual affection and bodily attunement fundamental to social interaction and understanding. While I agree with Maiese's point, I think it is important to stress that what autistic persons experience is not only a loss of affective salience but also a felt loss of at-home-ness. This can be described as a form of affective reorientation, where the world and other people become imbued with a sense of threat and uncertainty in relation to which the autistic person feels exposed and vulnerable.

What emerges from the descriptions of sensory experience in autism discussed above is a strong sense of the world as overwhelming, unpredictable, and unsafe. Furthermore, two modes of response to such experiences of sensory stress were distinguished, both targeted at bodily and affective re-attunement to the world: (1) to retreat from the situation in a way that resembles the self-enclosure typically associated with autism, and (2) to anchor one's presence in some sensory aspect of the world to stabilize a disorganized sensory experience. Regarding these strategies of re-attunement, we can ask how they reflect on the role of things in autistic social interactions discussed preciously. Objects such as guitars, board games, and virtual dance partners facilitated interbodily communication and dynamic constituting social interaction by guiding and joining the movements of the interactants and providing a shared structure. In light of the above analysis of sensory experience in autism, it could be argued that the board game, the guitar, and the virtual dance partner carry out the same work of centering and grounding perception and movement. The objects in each case serve as ways of regulating sensory and affective experience and attuning to an overwhelming and chaotic social world.

With Kim Sterelny's notion of the scaffolded mind (Sterelny, 2010), Giovanna Colombetti and Joel Krueger argue that affective states have an inherently active aspect because we, rather than passively undergoing emotional experiences, actively (although not always consciously) manipulate the world to enable the realization of particular affective experiences (Colombetti & Krueger, 2015). This activity is supported by other people, who play a fundamental role in regulating our emotional lives. According to Colombetti and Krueger, this role is mediated by a basic sense of trust and familiarity with other people (Colombetti & Krueger, 2015). As we have seen, autistic sensory experiences of the world and other people are often permeated by a sense of threat, intrusiveness, and uncertainty. For this reason, the experience of affective resonance with other people may need support and facilitation. As I have argued, material objects, practices, and environments can assist this process of scaffolding interpersonal attunement, which is an essential addition to Colombetti and Krueger's argument that material and interpersonal scaffoldings can constrain one another not only in larger social communities but also in face-to-face dyadic encounters. In the cases I have discussed above, objects acted as material scaffolds for the felt sense of connection with other people. By coordinating

interactants' movements and providing a shared structure and dynamic, objects facilitated interbodily attunement and, in this way, reestablished the mutual relationship of affecting and being affected fundamental for our relation to the world and other people.

This understanding of objects resonates with the theories of perception developed by Gibson and Merleau-Ponty, in which experiencing the world as meaningful is the same as experiencing the world as a space for possible actions. According to Gibson, what the organism perceives is what the objects afford. Perception is thus inextricably linked to (inter)action. For example, rather than revealing a cup as such, perception reveals the graspability of the cup or the drinkability of its contained liquid. Thus, perception always communicates the world's invitational character (Gibson, 1979). As Merleau-Ponty emphasizes, this means that perception is inextricable from the body's ability to interact with the world and other people, and consequently, that objects are not neutral but also normative by providing particular kinds of material and social action spaces that afford distinct styles of action and interaction (Merleau-Ponty, 2012). By thinking through Gibson, Merleau-Ponty, and recent work on normativity in perceptual experience (Talero, 2008; Wehrle, 2015), I will explore the role of objects in autistic social interaction as not only sensory but also prescriptive things. In addition, this invites further consideration of how normativity in social encounters is connected to the spatial and temporal configuration of objects and the broader material landscapes in which they are embedded.

Materiality and normativity: "It's just the game, right?"

Rather than describing normativity as conceptual and ethical in nature, I approach norms as already at work in experience as unspoken and pre-predicative standards according to which the world appears coherent and meaningful (Wehrle, 2015). In her Merleau-Pontian analysis of 'experiential workspaces,' Maria Talero argues that our experience of the world is governed by emergent norms in the sense that the world presents itself perceptually as inviting certain behavioral repertoires rather than others (Talero, 2008). For example, when walking a familiar path,

The very appearance of that intersection for me is a way of knowing what to do when I see it: immediately and without having to rely on any discursive or reflective process, I deploy that action suitable to bringing about a state of affairs congruent with what that appearance is calling for (Talero, 2008, p. 458).

From this perspective, perception is a matter of knowing what to do and how to do it. A subtle and unspoken normativity hence structures in the sense that perception implicitly communicates the adequacy and relevance of certain behavioral modes.

Autism has long been characterized by a diminished grasp on tacit and unspoken social norms or a diminished "taste for what is adequate and appropriate, likely and relevant" (Parnas, Bovet, & Zahavi, 2002, p. 132). For example, Eva, a 24-year-old woman

diagnosed with infantile autism, describes not having an immediate sense of what is acceptable and expected in social situations.

One thing I've struggled with is when you small talk with someone before recess, then something in me questions whether I should go along with the others or remain seated in the classroom. What is socially acceptable? If we've talked in class, should I then go with you to buy lunch so we can continue our conversation or was that just it?

Eva describes herself in a state of perplexity regarding this dilemma of going to lunch with the others or not, a situation that would not warrant such intensive consideration for many. Autistic persons often describe this immense difficulty with intuitive and contextual knowledge of what to do and how to do it in social situations. How does this relate to material things? Eva provides a hint in her description of the first time she attended an autism group as a teenager.

I remember clearly that while we sat there drawing, nobody said anything except once, when someone went, "please pass me the eraser." That was the only thing we said to each other all night. We were so nervous, it was all we could say.

What loosens the nervous and silent tension in this description is not just the activity of drawing, it is the eraser as one of the things partaking in this activity. The eraser affords a way to open conversation, a sentence to utter nervously. But importantly, it also affords joint movement through its passing from hand to hand: it affords the aligning of bodies. Central to Gibson's concept of affordances is the idea that what is afforded is first and foremost a way to behave in accordance with an environment. For example, "[t]o hide is to position one's body at a place that is concealed at the points of observation of other observers" (Gibson, 1979, p. 128). According to Gibson, what is afforded are ways of moving in resonance with the object, the environment in which it is embedded, and other people participating in the situation. In this case, the eraser affords being handled in a particular way in consonance with the practice of drawing together.

Describing her difficulty with social interaction during school breaks, 17-year-old Helene with Asperger's Disorder elaborates on how things (here, the card game Go Fish) relieve her of some of the 'social workload.'

Well, as soon as it is a concrete or tangible thing that you're doing with someone... For me, it's still anxiety-provoking because I'm in a situation where I have to perform, I have to constantly concentrate on being social. So it takes a lot of energy, but it is easier in this case because I don't have to spend so much energy thinking about what to say, what the right thing to answer is, or what this person means by that. It is more concrete if you say, "pass me all your 7's", or "I don't have any 7's."

As Helene emphasizes, there is something about the concreteness of things that alleviates her of the need to think about what to say and how to say it. The card game is there, and its rules are explicit. By providing a fluency, rhythm, and dynamic to the speech and body

movements of the players and a set of rules to follow, the game's playability comes to embody the possibility of social interaction. Johanne describes playing board games with friends in a similar manner:

When playing, you don't have to concentrate as much on interpreting other people because it's all about the game. There are perhaps a few situations that need to be interpreted, but mostly it's pretty straightforward because it's just the game, right?

In a board game situation, social interaction is primarily about the game and secondarily about people, and importantly, the latter conforms to the rules of the former. By deciding what is right and wrong, relevant and irrelevant, the object provides a framework from which to understand and reciprocate the gestures of another person. Boards, cards, and board game pieces guide movements and make them predictable and understandable as they take place within the framework of a rule-based and orderly game. Thus, the where, when, and how of social interaction are embodied in the material things. In other words, the object mediates what is relevant and appropriate, the 'rules of the game,' or the skills and know-how (McGeer, 2009) of social interactions, which become available to the autistic person pre-reflectively through embodied and fluent engagement with the object.

In the right place at the right time: The normativity of time and space

So far, this analysis has focused on the sensory and the normative dimension of things. We have seen how material things can carry out the important work of centering and grounding chaotic sensory experiences in autism and thus provide a sensory and affective form of re-attunement to the material environment as space for possible (inter)actions. Moreover, objects offer engagement with various normative practices and embody a set of rules to follow and thus a sense of what is relevant and appropriate in social encounters. An important part of this story is how such normative practices relate to the spatial and temporal structure of objects and material environments. Elli, an 18-year-old woman with Asperger's Disorder, describes this spatiotemporal level of navigating the social world in relation to the experience of feeling awkward at a social event at her school.

I feel enormously poorly placed in situations. For example, at a barbeque with my class this Thursday... It was really hard because both the parents, the teachers, and the other students were there... Like, where to go and what to do, right? Should I stand with my parents [...] or should I stand with the other students?

Elli's social uncertainty expresses itself at a spatial level as a motor perplexity regarding the 'how' and 'where' of social interaction. What to do in social encounters becomes a matter of navigating the spatial relations of where to stand in relation to whom. Mads, a 21-year-old man with autism, describes a temporal dimension of social difficulties about 'keeping time' in social interaction:

Everything I say I have already run through my head. [...] I have to go through it before I express myself, and this can take time. It makes it difficult to keep a conversation going fast enough. I have to evaluate what I say and think about it.

Similarly, Nina describes how the issue of following the pace of a conversation results in falling out of sync with the other person: “People expect an answer fairly fast, so If you don’t answer within, say, 30 seconds, then people will start to question whether you even heard them.” In his critical phenomenological analysis of the spatial origins of social impairments in autism, Krueger describes the pervasive sense of uncertainty that autistic individuals experience in social situations as a felt sense of being out of sync with neurotypical environments (Krueger, 2021). By highlighting the political and normative dimensions of space, Krueger argues that a mismatch between autistic cognitive and bodily styles and the spatial and material design of neurotypical environments causes the autistic person to experience a basic form of disorientation or a felt loss of at-home-ness (Krueger, 2021; Krueger & Maiese, 2018). I think Krueger’s spatial analysis applies equally to the temporal structure of social interaction. Temporal metaphors for social competence, such as “timing” and “tact” or descriptions of relationships as “harmonious,” suggests a certain rhythm of social life that one can become out of tune or off-beat with (Amos, 2013). Elli, Mads, and Nina each describe an experience of being out of sync with the spatial and temporal flow of social interactions and a felt sense of insecurity about their social performance. They do not experience social spaces as fields of possible actions made available with the immediacy required for correct timing in social situations. Consequently, social interaction becomes a demanding, laborious, and thought-out process that they feel disconnected from.

Krueger’s analysis enables consideration not only how particular material artifacts allow forms of social engagement that better match autistic perceptual, motor, and cognitive styles but also how the design of wider social spaces and temporal structures could potentially contribute to a feeling of at-home-ness for autistic individuals. This challenges the idea that social competence in autism can be explained by factors internal to the autistic person and reconceptualizes autism in terms of the spatiotemporal and normative contexts in which social interactions occur. Moreover, it highlights the importance of looking at the spatial and temporal aspects of social practices and how they relate to autistic social difficulties.³²

These considerations concerning the spatial and temporal structure of objects invite further discussion of how different spatiotemporal configurations afford different forms of social engagement. Particularly the variations in temporal structure between the objects discussed in this paper possibly represent a fruitful way to highlight the distinct

³² For recent examples, see studies of interpersonal space regulation and temporal synchrony in autism that emphasize the spatial and temporal dimensions of social interaction processes (Candini, di Pellegrino, & Frassinetti, 2020; Murat Baldwin, Xiao, & Murray, 2021) but, unfortunately, do not consider the normative aspects of such spatiotemporal processes in relation to autism.

social potentials of different material objects. For example, the looser timeframe of the board game allows for a more reflectively driven approach to social interaction and the use of background knowledge of the game's rules, strategies, and conventions. In this way, the board game supports a more normative and reflective aspect of social interaction concerning the reasons behind others' actions (i.e., moves) and how to appropriately respond to those actions (i.e., through countermoves). In contrast, dancing involves more spontaneous coordination with the rhythm of the music that does not require, and may even be obstructed by, reflective attention to the activity. It supports a more spontaneous and intuitive aspect of social interaction involving real-time bodily synchronization with the other person on a pre-reflective level (see Koch, Mehl, Sobanski, Sieber, & Fuchs, 2014).³³ However, exploring this promise of objects to facilitate different dimensions or levels of social interaction and understanding requires additional empirical support and further investigation into the experiential side of social engagement in autism. This is a promising avenue for future research on social interaction processes in autism and their connection to material objects and environments.

The case of autism. Toward a material intercorporeality

Various scholars within the phenomenological community have argued that empirical data can be used to nuance, refine, challenge, and develop phenomenological analyses of embodiment, subjectivity, and consciousness (Krueger & Michael, 2012; Ravn & Høffding, 2016). Autism represents an ideal case to discuss within phenomenology because it embodies a combination of differences that explicate otherwise taken-for-granted or ambiguous aspects of intersubjectivity. Construed as such, autistic forms of social interaction may contribute to phenomenological discussions of intersubjectivity. Since Edmund Husserl and Merleau-Ponty's classical analyses of intersubjectivity (Husserl, 1982; Merleau-Ponty, 2012), phenomenologists have agreed that the answer to the problem of other minds lies in the face-to-face encounter. As Merleau-Ponty cements, what enables intersubjectivity is how the subjectivity of the Other is revealed to me in his bodily comportment (Merleau-Ponty, 2012).

This emphasis on the embodied face-to-face encounter has been carried over into contemporary phenomenological discussions on sociality and social interaction (Fuchs & De Jaegher, 2009; Gallagher, 2012). For example, Thomas Fuchs and Hanne De Jaegher describe social interaction as "a process in which the lived bodies of both participants extend and form a common intercorporeality" (Fuchs & De Jaegher, 2009, p. 465). Autism provides an interesting challenge to this emphasis on the face-to-face encounter by explicating how embodied interaction can be mediated through engagement with things rather than the direct embodied presence of the other person. In the cases addressed in

³³ This difference between more reflectively and intuitively driven aspects of social interaction is closely connected to the difference between offline and online social cognition, as outlined by Leonhard Schilbach (2014).

this article, it was not the body of the other that acted as the ground of mutual incorporation but the materiality of things. In this way, social interaction can be construed as an extended, material, and spatial phenomenon that cannot be understood through inter-bodily dynamics alone.

This argument warrants further reflection on the difference between social engagement in persons with and without autism. However, my point is not to impose a rigid distinction between autistic and non-autistic sociality. Indeed, many of the examples of being together by “doing this together” discussed in this paper may be relatable regardless of the presence of autism. For example, first dates often rely on a dinner situation involving cutlery to guide the movements of arms and hands, chairs in pre-arranged positions to know how to sit in relation to one another, a table to mediate interpersonal distance, and a menu to talk about and to direct one’s gaze toward. However, in the phenomenological literature, this material landscape is rarely granted a constitutive role in discussions surrounding social interaction and understanding. Autism presents a combination of differences in perceptual, bodily, and cognitive style that make face-to-face interaction difficult. Consequently, autistic persons often experience social understanding breaking down, interactions becoming awkward, or stagnating prematurely. Autistic interaction styles thus represent ways that social engagement can be smoothed out, restored, and supported in different ways. Thus, autistic sociality illuminates the fundamental interpersonal function of “making it work.” Rather than casting autistic persons as fundamentally different social beings, I have tried to show how autistic ways of sensing, moving, and thinking explicate alternative and taken-for-granted aspects of sociality regardless of diagnostic distinctions.

Thus, autism expands our understanding of what intersubjectivity is and how it can be cashed out in various forms of interactions that not only span across bodies but also material spaces. This account invites critical reflection on phenomenology as a normative framework that establishes rather than merely describes what it means to be social. For example, in the context of psychiatry, understanding intersubjectivity as achievable through face-to-face encounters alone easily defines those who have difficulty maintaining eye contact as socially deviant. Recently, phenomenology has received increased attention as a critical resource in psychiatry and disability studies (Krueger, 2021; Lajoie & Douglas, 2020; Zahavi & Loidolt, 2022). This marks the potential of phenomenology to constructively address the inherent normativity of intersubjectivity and the ethical and political dimensions of being social. For example, it has been argued that autistic persons face systematic epistemic injustice and disablement due to the striking disparity between first- and third-person accounts of autistic sociability or between an experienced desire to interact, communicate, fit in, and relate and the prevalent stereotyped and scientific belief that autistic persons are fundamentally asocial (Catala, Faucher, & Poirier, 2021). As Victoria McGeer (2005) also argues, autistic testimonies are often ignored in autism research because they are taken to be unreliable. In this context, phenomenology’s concern with experience can be practiced as an engagement with autistic first- and second-

person experience as a critical resource in discussions concerning the nature of intersubjectivity and disability.

This emphasizes the necessity for phenomenology to interrogate not only typical but also atypical and diverging modes of being. This ambition brings the phenomenon of autism into view as a difference rather than a deviance, thus marking the heterogeneity of existential modes also implied in Merleau-Ponty's analysis of pathology. When Merleau-Ponty speaks of illness as "a complete form of existence" (Merleau-Ponty, 2012, p. 110), it means that autism is itself a meaningful style of being. Indeed, one could argue that autism as pathology only emerges in the clash between autistic and non-autistic modes of experience – what Damian Milton has described as the "double empathy problem" (Milton, 2012). Ultimately, approaching pathology this way enables an understanding of autism as embodying a difference in social style rather than a bad style in need of correction.³⁴

Implications for autism interventions

This account challenges the idea that autism can be ascribed to the individual and considers instead autism as a "two way phenomenon" (Krueger & Maiese, 2018) unfolding dialectically between the autistic person and her socio-material environment. Such a relational perspective on autism has significant consequences for designing intervention strategies. In autism research and practice, interventions have typically been aimed at reconfiguring the autistic person to fit neurotypical social norms, such as through learning 'prosocial' behavior (eye contact, joint attention, etc.) and eliminating 'problem behavior' or negative patterns of thought (Simpson et al., 2005). However, if autism, as I have proposed in this article, emerges in dialogue with external structures embodying different sensory, social, material, and normative features, it raises the question of 'directions of fit' in autism treatment. Moreover, it emphasizes the need for avoiding individualizing strategies and instead designing autism interventions relationally and with careful attention to autistic experiences and behaviors as involving 'outside' processes.

³⁴ It is important to emphasize that this notion of pathology does not dismiss or ignore the experience of suffering faced by many autistic persons. The point that autistic perception, movement, cognition, and interaction styles are meaningful and sensible ways of understanding and relating to an environment does not exclude the fact that such modes of perception, movement, cognition, and interaction can cause the person intense distress. This view places pathology in the relation between the autistic person and their socio-material environment and argues that social impairment does not reside in the individual but emerges in the relation between different ways of navigating the social world. Importantly, this does not make social difficulties any less difficult. For additional perspectives on this discussion, see the controversy surrounding the notion of neurodiversity since its inception in the late 1990s (Blume, 1998; Singer, 1999). In celebrating autism as an expression of natural variation and as a unique way of experiencing the world associated with a unique set of skills and abilities, the neurodiversity movement has been criticized for not representing the challenges faced by a large portion of the spectrum; many of whom do not develop verbal language and present severe learning difficulties (Clements, 2019).

The critical role played by the environment in sustaining social interaction in autism presents an important resource for directing autism interventions toward the construction of affordance spaces to enable a sense of social connectedness for the autistic person. One possibility would be to focus on autism interventions that already build on bodily, reciprocal, and material practices, such as occupational therapy (Stornelli, 2016), dance/movement therapy (Koch et al., 2014), or music therapy (Srinivasan & Bhat, 2013), on the active inclusion of the material environment in scaffolding social interaction processes. Such work on the therapeutic implications of non-individualistic accounts of autism represents an essential and overlooked avenue for future research.

Conclusion

In this article, I have put forth a phenomenological account of the relation between intersubjective and material modes of engagement in autism and questioned the distinction between autistic deficits in a ‘social’ and ‘non-social’ domain. Drawing on observational and interview-based qualitative data from an ongoing phenomenological study on social interaction in autism, I have proposed that material things enjoy a sustaining and facilitating role in autistic social interaction. In the cases of playing a musical instrument together, a board game, or dancing via a virtual partner, the objects in question played the role of coupling interacting bodies by helping the movements of the interactants synchronize and achieve a shared rhythm and structure. Thus, what fueled social interaction in these cases was not found in the individual minds or bodies of the interactants but rather in between them in the world of things.

Two aspects of objects emerged as relevant in mediating this mutual social connectedness. One, the fact that things can be sensed, and two, the fact that things embody normative practices. As described by autistic individuals, sensible objects can help re-attuning to a sensorially overwhelming and chaotic social world and relieve the oppressiveness of sensory experience that so often forces autistic forms of social withdrawal and passivity. This affective dimension of sensory experience in autism related closely to the ability of objects to act as material scaffolds for a felt sense of connection with the world and other people. In addition, because objects are also normative, they provide interactional fluency and dynamic by determining what is appropriate, relevant, and expected to say and do in a particular situation, thus attuning autistic individuals to the ‘rules of the game’ on a pre-reflective and bodily level. This related closely to the spatial and temporal structure of normative practices, highlighting the potential of material objects and landscapes to facilitate bodily navigation in social spaces and attunement to the temporal dynamics of social encounters.

We can say that the forms of social interaction described in this paper illustrate a relation between the material and the social where the latter is mediated and supported by the former. This form of interaction is especially beneficial to individuals with autism because it exploits a particular relation to materiality to consolidate a shaky attunement

to the social world. Regarding the assumed distinction between autistic deficits in a ‘social’ and a ‘non-social’ domain, we have seen how material things, which are often the objects of fixated interests, stereotyped behaviors, or sensory exploration, may mediate and embody ‘the social,’ and conversely, how social competencies may flourish as engagement with things.

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References

- Amos, P. (2013). Rhythm and timing in autism: learning to dance. *Frontiers in Integrative Neuroscience*, 7, 27.
- Asperger, H. (1944/1991). “Autistic psychopathy” in childhood. In U. Frith (Ed.), *Autism and Asperger Syndrome* (pp. 37–92). Cambridge, MA: Cambridge University Press.
- Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a “Theory of Mind”? *Cognition*, 21, 37–46.
- Bleuler, E. (1911/1950). *Dementia praecox or the group of schizophrenias*. Oxford, England: International Universities Press.
- Blume, H. (1998, September). Neurodiversity. On the neurological underpinnings of geekdom. *The Atlantic*.
- Boldsen, S. (2018). Toward a Phenomenological Account of Embodied Subjectivity in Autism. *Culture, Medicine and Psychiatry*, 42(4), 893–913.
- Boldsen, S. (2021). Social interaction style in autism: an inquiry into phenomenological methodology. *Journal of Phenomenological Psychology*, 52(2), 157–192.
- Bottema-Beutel, K., Mullins, T. S., Harvey, M. N., Gustafson, J. R., & Carter, E. W. (2016). Avoiding the “brick wall of awkward”: Perspectives of youth with autism spectrum disorder on social-focused intervention practices. *Autism*, 20(2), 196–206.
- Candini, M., di Pellegrino, G., & Frassinetti, F. (2020). The plasticity of the interpersonal space in autism spectrum disorder. *Neuropsychologia*, 147, 107589.
- Catala, A., Faucher, L., & Poirier, P. (2021). Autism, epistemic injustice, and epistemic disablement: a relational account of epistemic agency. *Synthese*.
- Cesaroni, L., & Garber, M. (1991). Exploring the experience of autism through firsthand accounts. *Journal of Autism and Developmental Disorders*, 21(3), 303–313.
- Churchill, S. D. (2017). On the Empathic Mode of Intuition: A Phenomenological Foundation for Social Psychiatry. In M. Englander (Ed.), *Phenomenology and the Social Context of Psychiatry: Social Relations, Psychopathology, and Husserl’s Philosophy* (pp. 65–94). London: Bloomsbury Academic.

- Clements, T. (2019, August 26). What is autism? How the term became too broad to have meaning any more. *The Guardian*.
- Colombetti, G., & Krueger, J. (2015). Scaffoldings of the affective mind. *Philosophical Psychology*, 28(8), 1157–1176.
- De Jaegher, H. (2013). Embodiment and sense-making in autism. *Frontiers in Integrative Neuroscience*, 7, 15.
- Donnellan, A. M., Hill, D. A., & Leary, M. R. (2013). Rethinking autism: implications of sensory and movement differences for understanding and support. *Frontiers in Integrative Neuroscience*, 6, 124.
- Englander, M. (2020). Phenomenological psychological interviewing. *The Humanistic Psychologist*, 48(1), 54–73.
- European Commission. (2018). *Ethics in Social Science and Humanities*. Bruxelles / Luxembourg.
- Finlay, L. (2009). Debating Phenomenological Research Methods. *Phenomenology & Practice*, 3(1), 6–25.
- Fuchs, T. (2013). The Phenomenology of Affectivity. In K. W. M. Fulford, M. Davies, R. G. T. Gipps, G. Graham, J. Z. Sadler, G. Stanghellini, & T. Thornton (Eds.), *The Oxford Handbook of Philosophy and Psychiatry* (pp. 612–631). Oxford: Oxford University Press.
- Fuchs, T. (2015). Pathologies of Intersubjectivity in Autism and Schizophrenia. *Journal of Consciousness Studies*, 22(1), 191–214.
- Fuchs, T., & De Jaegher, H. (2009). Enactive intersubjectivity: Participatory sense-making and mutual incorporation. *Phenomenology and the Cognitive Sciences*, 8(4), 465–486.
- Gallagher, S. (2012). In Defense of Phenomenological Approaches to Social Cognition: Interacting with the Critics. *Review of Philosophy and Psychology*, 3(2), 187–212.
- Gallagher, S. (2013). Intersubjectivity and psychopathology. In B. Fulford, M. Davies, B. Graham, J. Sadler, & G. Stanghellini (Eds.) *Oxford Handbook of Philosophy and Psychiatry* (pp. 258–274). Oxford: Oxford University Press.
- Geertz, C. (1973). Thick Description: Towards an Interpretive Theory of Culture. In C. Geertz (Ed.), *The Interpretation of Cultures* (pp. 310–323). New York, NY: Basic Books.
- Gibson, J. J. (1979). *The Ecological Approach to Visual Perception*. Boston, MA: Houghton Mifflin.
- Giorgi, A. (2021). The Necessity of the Epochē and Reduction for a Husserlian Phenomenological Science of Psychology. *Journal of Phenomenological Psychology*, 52(1), 1–35.
- Goffman, E. (1961). *Asylums: Essays on the social situations of mental patients and other inmates*. Oxford, England: Doubleday Anchor.
- Grandin, T. (2006). *Thinking in pictures: and other reports from my life with autism*. London, England: Bloomsbury.
- Hammersley, M., & Atkinson, P. (2007). *Ethnography. Principles in Practice*. New York, NY: Routledge.

- Hannant, P., Cassidy, S., Tavassoli, T., & Mann, F. (2016). Sensorimotor Difficulties Are Associated with the Severity of Autism Spectrum Conditions. *Frontiers in Integrative Neuroscience*, 10, 28.
- Høffding, S., & Martiny, K. (2016). Framing a phenomenological interview: what, why and how. *Phenomenology and the Cognitive Sciences*, 15, 539–564.
- Husserl, E. (1982). *Cartesian Meditations. An Introduction to Phenomenology*. The Hague: Martinus Nijhoff Publishers.
- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217–250.
- Koch, S. C., Mehl, L., Sobanski, E., Sieber, M., & Fuchs, T. (2014). Fixing the mirrors: A feasibility study of the effects of dance movement therapy on young adults with autism spectrum disorder. *Autism*, 19(3), 338–350.
- Krueger, J. (2021). Finding (and losing) one’s way: autism, social impairments, and the politics of space. *Phenomenology and Mind*, 21:20-33.
- Krueger, J., & Maiese, M. (2018). Mental institutions, habits of mind, and an extended approach to autism. *Thaumazein*, 6, 10–41.
- Krueger, J., & Michael, J. (2012). Gestural coupling and social cognition: Moebius Syndrome as a case study. *Frontiers in Human Neuroscience*, 6, 81.
- Kvale, S., & Brinkmann, S. (2009). *InterViews: Learning the craft of qualitative research interviewing*. Thousand Oaks, CA, US: Sage Publications, Inc.
- Lajoie, C., & Douglas, E. (2020). A Crip Queer Dialogue on Sickness. *Puncta*, 3(2).
- Maiese, M. (2013). Autism, Empathy, and Affective Framing. In J. L. Anderson & S. Cushing (Eds.), *The Philosophy of Autism*. Lanham, Md.: Rowman & Littlefield Publishers.
- McGeer, V. (2005). Out of the mouths of autistics: Subjective report and its role in cognitive theorizing. In A. Brook & K. Akins (Eds.), *Cognition and the Brain: The Philosophy and Neuroscience Movement*. Cambridge University Press.
- McGeer, V. (2009). The Skill of Perceiving Persons. *Modern Schoolman*, 86(3–4), 289–318.
- Merleau-Ponty, M. (1964). *Signs*. Evanston, IL: Northwestern University Press.
- Merleau-Ponty, M. (1968). *The Visible and the Invisible*. (C. Lefort, Ed., A. Lingis, Trans.). Evanston, IL: Northwestern University Press.
- Merleau-Ponty, M. (2012). *Phenomenology of Perception*. (D. Landes, Trans.). Oxon-New York: Routledge.
- Milton, D. (2012). On the ontological status of autism: the ‘double empathy problem.’ *Disability & Society*, 27(6), 883–887.
- Morley, J. (2019). Response to Dan Zahavi and Kristian Moltke Martiny on Applied Phenomenology in Nursing Studies. *International Journal of Nursing Studies*, 93, 163–167.
- Murat Baldwin, M., Xiao, Z., & Murray, A. (2021). Temporal Synchrony in Autism: a Systematic Review. *Review Journal of Autism and Developmental Disorders*.
- Nilsson, M., Handest, P., Nylander, L., Pedersen, L., Carlsson, J., & Arnfred, S. (2019). Arguments for a Phenomenologically Informed Clinical Approach to Autism Spectrum Disorder. *Psychopathology*, 52(3), 153–160.

- Ozonoff, S., Pennington, B. F., & Rogers, S. J. (1991). Executive function deficits in high-functioning autistic individuals: Relationship to theory of mind. *The Journal of Child Psychology and Psychiatry*, 32(7), 1081–1105.
- Parnas, J., Bovet, P., & Zahavi, D. (2002). Schizophrenic autism: clinical phenomenology and pathogenetic implications. *World Psychiatry*, 1(3), 131–136.
- Petitmengin, C. (2006). Describing one's subjective experience in the second person: An interview method for the science of consciousness. *Phenomenology and the Cognitive Sciences*, 5(3–4), 229–269.
- Pink, S. (2009). *Doing Sensory Ethnography*. Thousand Oaks, CA: SAGE Publications.
- Ravn, S. (2017). Phenomenological analysis and sport and exercise. In B. Smith & A. C. Sparkes (Eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (pp. 206–218). London-New York: Routledge.
- Ravn, S. (2021). Integrating qualitative research methodologies and phenomenology—using dancers' and athletes' experiences for phenomenological analysis. *Phenomenology and the Cognitive Sciences*.
- Ravn, S., & Høffding, S. (2016). The promise of 'sporting bodies' in phenomenological thinking – how exceptional cases of practice can contribute to develop foundational phenomenological concepts. *Qualitative Research in Sport, Exercise and Health*, 9, 1–13.
- Regulation (EU) 2016/679 of the European Parliament and of the Council. (2016). on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). *Official Journal of the European Union*, L 119, 1–88.
- Robertson, C. E., & Baron-Cohen, S. (2017). Sensory perception in autism. *Nature Reviews Neuroscience*, 18(11), 671–684.
- Robledo, J., Donnellan, A. M., & Strandt-Conroy, K. (2012). An exploration of sensory and movement differences from the perspective of individuals with autism. *Frontiers in Integrative Neuroscience*, 6, 107.
- Schilbach, L. (2014). On the relationship of online and offline social cognition. *Frontiers in Human Neuroscience*, 8, 278.
- Simpson, R., de Boer-Ott, S., Griswold, D., Myles, B., Byrd, S., Ganz, J., ... Adams, L. (2005). *Autism spectrum disorders: Interventions and treatments for children and youth*. Thousand Oaks, CA: Corwin Press.
- Singer, J. (1999). "Why can't you be normal for once in your life?" From a "problem with no name" to the emergence of a new category of difference. In M. Corker & S. French (Eds.), *Disability Discourse*. Philadelphia, PA: Open University Press.
- Srinivasan, S. M., & Bhat, A. N. (2013). A review of "music and movement" therapies for children with autism: embodied interventions for multisystem development. *Frontiers in Integrative Neuroscience*, 7, 22.
- Sterelny, K. (2010). Minds: extended or scaffolded? *Phenomenology and the Cognitive Sciences*, 9(4), 465–481.

- Stornelli, J. L. (2016). Occupational therapy for autism spectrum disorder. In C. J. McDougle (Ed.) *Autism Spectrum Disorder* (pp. 339–368). Oxford: Oxford University Press.
- Talero, M. L. (2008). The experiential workspace and the limits of empirical investigation. *International Journal of Philosophical Studies*, 16(3), 453–472.
- Wehrle, M. (2015). Normality and Normativity in Experience. In M. Doyon & T. Breyer (Eds.), *Normativity in Perception* (pp. 128–139). London, England: Palgrave-Macmillan.
- Williams, E., Costall, A., & Reddy, V. (2018). Autism and Triadic Play: An Object Lesson in the Mutuality of the Social and Material. *Ecological Psychology*, 30(2), 146–173.
- World Health Organization. (2018). *International statistical classification of diseases and related health problems* (11th Revision). Geneva: World Health Organization.
- Zahavi, D. (2019). Applied phenomenology: why it is safe to ignore the epoché. *Continental Philosophy Review*.
- Zahavi, D., & Loidolt, S. (2022). Critical phenomenology and psychiatry. *Continental Philosophy Review*, 55(1):55-75.
- Zahavi, D., & Parnas, J. (2003). Conceptual Problems in Infantile Autism Research: Why Cognitive Science Needs Phenomenology. *Journal of Consciousness Studies*, 10(9–10), 53–71.

Chapter 7

Closing remarks

Conclusion

This dissertation concerns the question of how to understand the breadth and wealth of autistic experiences and modes of engagement with the social world and presents a qualitative investigation of how autistic adolescents and young adults experience social encounters and engage in social interactions. The study is based on participant observation in leisure- and activity-based social groups for young people with autism and in-depth interviews with group participants. This study explores and describes how such experiences and practices reflect an autistic form of intersubjectivity. Building on recent phenomenological accounts of autism, the specific research questions concern (1) the role of sensory differences in autistic experiences of social encounters and interactions and (2) the role of the material environment in shaping and facilitating specific modes of social engagement in autism. In the following, I will discuss some key themes that summarize the study's distinct approach to the phenomenon of autistic intersubjectivity and provide a framework for discussing its contribution to the fields of autism research and phenomenology.

A framework for exploring experiential diversity in autism

The study develops a phenomenological approach to autism in two ways. First, by drawing on the potential of phenomenology to explore autism as an experiential diversity, and second, by expanding the methodological framework of phenomenology to bring into view social interaction as a dynamic relation between embodied subjects and the surrounding world.

Regarding the first aim, I argue that phenomenological analyses of intersubjectivity and perception can be applied as critical resources for understanding autistic modes of experiencing and engaging with the social world as different intercorporeal systems. This enables an alternative to the idea that social difficulties can be reduced to failed social competence in the autistic person and invites consideration of how different ways of experiencing and relating to the world promote different forms of intersubjective engagement.

Regarding the second aim, I argue for a methodological approach to studying autistic intersubjectivity that combines phenomenological interviews focused on exploring the sensory and subjective dimensions of autistic social experiences with participant observation of autistic social practices. This combination enables an approach to social interaction in autism that facilitates attention to the subjectivity of autistic experiences and the socio-material environments in and through which social experiences arise. This opens attention to how sensory and social experiences and practices in autism are inherently world-involving phenomena that include rather than merely take place in a particular milieu.

Sensory experience and social detachment

In response to research question (1), this study presents a phenomenological analysis of the sensory dimensions of social experiences described by eleven autistic adolescents and young adults. General features of these descriptions included a strong sense of being sensorially overwhelmed by the intensity of tactile, auditory, and visual features of social situations and encounters, which were experienced as chaotic, unpredictable, and threatening. Many described a strong feeling of discomfort, anxiety, and detachment from the social situation, which promoted a need to withdraw altogether from the interaction with others.

The phenomenological structure underlying these experiences was characterized by a blurred distinction between the thematized and the tacit in perception. The social world was described as a perpetual coming-to-attention of sensory aspects of the embodied expressions of others, such that everything appeared in focus, and nothing remained tacit as a background of attention. This oppressiveness of sensory experience imbued the experience of others with an affective tonality of threat and disrupted the sense of familiarity with others in social encounters. The other thus appeared with a sense of opacity and inaccessibility rather than a meaningful expressive unity. Participants generally described a feeling of alienation from others and the need to withdraw, either by leaving the situation altogether or by a form of affective and experiential retreat that often took the form of passivity and lack of initiative in social interaction.

These findings reveal a relationship between autistic sensory and social experience, where some forms of sensory differences can produce a break in the mutuality and reciprocity of social interaction, both experientially in terms of how others are felt and behaviorally in terms of the possibilities of engaging in interaction with others. Furthermore, participants described several ways of dealing with these intense experiences of detachment from social encounters. One strategy was described as a form of sensory absorption by seeking more stable forms of sensory stimulation. Another strategy applied reflective resources to understanding social meaning, where isolated aspects of the other's expression were deliberately analyzed.

These ways of regaining a sense of footing in and grasp on chaotic and unpredictable social encounters indicate how autistic forms of intersubjectivity are structured around alternative resources and use different entry points to the experience of social connectedness. Moreover, this study suggests that autistic social behaviors that have often been characterized as expressive of social impairment, such as social passivity or lack of initiative, are in some cases based on sensory issues and ways of dealing with them.

Materiality and interbodily relatedness in autism

In response to question (2), this study explores how social interaction is practiced by autistic adolescents and young adults in the context of leisure- and activity-based social groups and the role of the material environment in facilitating social engagement between

participants. Pervading the various social practices observed as part of this study was the indispensable role of objects. In cases such as playing the guitar together, competing in a board game, cooking, or dancing, it was observed that objects facilitated basic bodily aspects of social interaction, such as interbodily coupling and synchronization through a shared rhythm or structure. What was striking about the interactions between group participants was how expressive gestures, eye contact, and bodily directness toward one another were mediated by the structures of the material environment. Based on these observations, I suggest two aspects of materiality in facilitating social engagement in autism.

First, shared material engagement functions as a way to re-attune to a social world experienced as sensorially overwhelming and chaotic. By providing delimited and regulated opportunities for tactile, visual, or auditory engagement, objects act like sensory “anchors,” regulating and grounding sensory and affective attunement to other people during social interaction. Thus, objects act as material scaffolds for a felt sense of connection to other people by being sensible things.

Second, objects embody normative practices that mediate what is relevant and appropriate to do during social interactions. Several participants described the experience of being temporally and spatially out of sync with other people and a pervasive sense of insecurity connected to correct timing and orientation in social situations. In such cases, where social interaction often becomes a laborious and thought-out process, shared material engagement can facilitate a sense of bodily attunement, fluency, and social connectedness by providing a shared normative, temporal, and spatial interactive structure. Thus, distinct ways of handling objects can mediate different ways of engaging with each other socially.

Autism research has often assumed a distinction between deficits in how autistic persons interact with the physical and the social environment. This study draws attention to how material things, often described as objects of fixated interests or stereotyped behaviors, may mediate alternative forms of social connectedness. This point brings autistic intersubjectivity into view as a strongly situated and complex phenomenon that exists in the interface between particular styles of experiencing and engaging with the surrounding world.

Autistic intersubjectivity

The field of autism research has historically been captivated by the idea of autism as a disorder of the mind. The culmination of this paradigm is represented by the still dominating theory of mind deficit hypothesis, according to which autism is a disturbance in the development of the ability to infer the mental states of others. This study is a project of moving our understanding of autism by describing how autistic intersubjectivity extends beyond the mind.

The findings summarized above suggest a form of autistic intersubjectivity that emerges in response to profound experiences of detachment from the social world and

relates to sensory differences in two fundamental ways. First, the experience of separation from the social world was instituted by experiences of seeing, hearing, and feeling the world differently. Second, sensory experience also provided a way to restore a sense of connectedness to others through seeking out more stable aspects of the sensory environment. Autistic intersubjectivity thus comes into view as a process of managing the unpredictability and sensory chaos of social encounters. This points to basic embodied features of autistic ways of understanding and interacting with others and illuminates autistic intersubjectivity as a phenomenological structure that involves and draws on the surrounding world as an active resource. Just like the world can be experienced as an overwhelming and disturbing place, it can also provide alternative modes of bodily connectedness with others through the shared engagement with material things. This points to the important potential of material engagement to scaffold and structure basic processes of social interaction in autism that furnish a sense of social connectedness for persons whose social experiences are often affected by isolation and separation from others.

Since the beginning of autism research, autistic persons have been described as withdrawn from other people, alone, socially disinterested, disconnected from the social world, mindblind, and even solipsistic. Moreover, such characteristics have primarily been explained with recourse to impairments within the mind of the autistic person. Contrary to such accounts, this study draws attention to the sensory and material features of autistic intersubjectivity as bodily forms of connecting to the world and others. This emphasizes the importance of exploring intersubjectivity in autism and the crucial task of consulting autistic experiences and perspectives as a basis for this exploration.

Future work

This study opens several avenues for future research in autism research and phenomenology. The findings summarized above suggest further exploration of the role of affectivity in disruptions of social connectedness and consideration of the potentials and challenges of peer-based support in autistic youth.

From a phenomenological perspective, the role of affectivity in shaping our experiential and bodily relation to the world and others has been the topic of much interest (Colombetti & Krueger, 2015; Fuchs, 2013; Maiese, 2013). One promising avenue for future research following this study is the relation between affective and sensory experience in creating a sense of detachment and estrangement from others. The participants in this study generally described the sensory features of social situations through an affective lens as *feeling* uncomfortable, threatening, and unfamiliar. While the notion of affectivity was addressed to some extent, the findings of this study invite further exploration of how affectivity may mediate the relation between sensory and social experience in autism by shaping a felt sense of the other person in social encounters. This provides

an interesting avenue for considering how affectivity offers a framework for understanding breakdowns of social connectedness. One way of pursuing this is to explore how critical approaches to affect that emphasize the normative role of affectivity in processes of exclusion and marginalization (Ahmed, 2014b, 2014a) may be put into constructive dialogue with phenomenological approaches to autism that explore the structures of sensory and social experience.

The social groups included in this study are examples of peer-based support, which is becoming an increasingly popular way of addressing social difficulties connected to autism in youth and adulthood (Crompton et al., 2022). However, many approaches to peer-based social groups focus on improving and training social skills among adolescents and young adults through didactic material, role-plays, and homework assignments (McVey et al., 2016). This study presents an avenue for further research into the potentials and effects of the experience of social connectedness and reciprocity in such settings on social problems encountered in autistic youth, such as loneliness, social anxiety, and a diminished sense of belonging. While this study has not aimed to evaluate the strengths and limitations of peer-based support groups, an interesting direction for future work is exploring how to design autism-friendly spaces that facilitate experiences of social connectedness while respecting the diversity of autistic experiences and needs.

Abstract

Throughout the history of autism research, autistic persons have been described as withdrawn from other people, socially disinterested, disconnected from the social world, mindblind, and even solipsistic. Despite this pervasive understanding of autism as a form of social impairment, few attempts have been made at understanding how autistic persons experience social encounters.

Recent studies in sensory abnormalities show that autistic persons experience and engage with the world differently and that such experiential differences may play an important and overlooked role in how they interact with others. This dissertation presents a qualitative, phenomenological study of social experience and interaction among autistic adolescents and young adults aimed at exploring and describing the structures of autistic ways of experiencing and navigating the social world. This study thus presents a promising avenue for understanding the relation between experiential differences in autism and social difficulties described continuously throughout the history of autism research.

The findings of this study are presented in four articles. The first article discusses the recent emphasis on embodiment in autism research and argues for the potential of Maurice Merleau-Ponty's phenomenology to conceptualize the relation between bodily, experiential, and intersubjective dimensions of autism. Building on this theoretical framework, the second article investigates how phenomenology can contribute to empirical methodologies for studying social interaction in autism. The third and fourth articles present the results of an empirical study of social experience and practice in autism based on fieldwork in two social groups for autistic adolescents and young adults and interviews with eleven group participants. The third article presents a phenomenological analysis of the sensory dimensions of social experience with emphasis on how the embodied expressions of others were structured through different sensory modalities. Building on these findings, the fourth and final article explores the role of objects in autistic social practices and how the sensory and normative aspects of material engagement may facilitate social connectedness in autism.

The study suggests that the experiences and practices of social interaction in autism reveal a form of intersubjectivity arising in response to profound experiences of detachment from the social world. This sense of detachment relates closely to the experience of being overwhelmed by the intensity of tactile, auditory, and visual features of social encounters. Autistic ways of navigating the social world can thus be described as strategies for managing the unpredictability and sensory chaos of social encounters. Furthermore, this study sheds light on the role of such strategies in providing alternative modes of bodily connectedness with others. Here, shared material engagement may scaffold basic bodily processes of social interaction and thereby contribute to a sense of social connection between autistic persons.

These findings draw attention to the experiential and bodily features of social difficulties in autism and emphasize autistic intersubjectivity as a phenomenological structure that involves and draws on the surrounding world as an active resource. In conclusion, this study both presents an overall framework that sensitizes autism research to the experiences of autistic persons and a proposal for understanding how autistic modes of experiencing the world impact a distinctive way of relating to others in social encounters.

Resumé af afhandlingen

Mennesker med autisme er historisk blevet beskrevet som afkoblede fra den sociale verden, trukket tilbage fra andre mennesker, socialt uinteresserede, solipsistiske og blinde overfor andres mentale tilstande. På trods af denne gennemgående forståelse af autisme som en social forstyrrelse, mangler vi viden om hvordan autistiske personer oplever mødet med andre mennesker.

Nyere studier af sanseforstyrrelser i autisme viser, at autistiske personer oplever verden anderledes, og at sådanne oplevelsesmæssige forskelle kan spille en vigtig og overset rolle i, hvordan de interagerer med andre mennesker. Denne afhandling præsenterer en kvalitativ, fænomenologisk undersøgelse af social oplevelse og interaktion blandt autistiske unge med det formål at beskrive autistiske måder at opleve og navigere den sociale verden. Dette studie præsenterer således en lovende tilgang til at forstå sammenhængen mellem oplevelsesmæssige aspekter af autisme og de sociale vanskeligheder, der er beskrevet kontinuerligt gennem autismeforskningens historie.

Resultaterne af denne undersøgelse præsenteres i fire artikler. Den første artikel diskuterer det voksende fokus på autistisk kropslighed og argumenterer for potentialet i Maurice Merleau-Pontys fænomenologi til at begrebsliggøre forholdet mellem autisms kropslige, oplevelsesmæssige og intersubjektive dimensioner. Med udgangspunkt i denne teoretiske ramme, undersøger den anden artikel, hvordan fænomenologi kan bidrage til empiriske undersøgelser af autistisk social interaktion. Den tredje og fjerde artikel præsenterer resultaterne af et empirisk studie af social oplevelse og praksis i autisme baseret på feltarbejde i to sociale grupper for autistiske unge og interviews med elleve gruppedeltagere. Den tredje artikel præsenterer en fænomenologisk analyse af de sansemæssige dimensioner af social oplevelse i autisme med fokus på, hvordan andres kropslige og sociale udtryk struktureres gennem forskellige sansemodaliteter. Med udgangspunkt i disse resultater, udforsker den fjerde og sidste artikel materielle genstandes rolle i autistiske sociale praksisser med fokus på, hvordan materialitetens sanselige og normative aspekter kan facilitere social interaktion.

Dette studie viser, at social oplevelse og praksis hos mennesker med autisme er kendetegnet ved en form for intersubjektivitet, der opstår som reaktion på gennemgribende oplevelser af afkobling og fremmedgørelse fra den sociale verden. Denne følelse af afkobling relaterer sig tæt til oplevelsen af at blive overvældet af intensiteten af det sociale mødes taktile, auditive og visuelle aspekter. Autistiske måder at navigere den sociale verden på kan således beskrives som strategier til at håndtere sociale situationers uforudsigelighed og sanselige kaos. Dette studie belyser ydermere den rolle, sådanne strategier spiller i tilvejebringelsen af alternative måder at forbinde sig til andre kropsligt og socialt. Her kan materielle genstande spille en vigtig rolle ved at stilladsere den sociale interaktions kropslige dynamikker og herigennem facilitere en følelse af social forbundethed.

Disse resultater tydeliggør de oplevelsmæssige og kropslige dimensioner af autisters sociale vanskeligheder og understreger, hvordan autistiske tilgange til social interaktion er kendetegnet ved en fænomenologisk struktur, der involverer og trækker på den omgivende verden som en aktiv ressource. Endeligt præsenterer dette studie både en teoretisk og metodisk ramme, der er sensitiv over for autisters egne oplevelser og en analyse af, hvordan de oplevelsmæssige dimensioner af autisme relaterer sig til en særlig måde at navigere den sociale verden.

References

- Ahmed, S. (2007). A phenomenology of whiteness. *Feminist Theory*, 8(2), 149–167.
- Ahmed, S. (2014a). Not in the mood. *New Formations*, 82(82), 13–28.
- Ahmed, S. (2014b). *The Cultural Politics of Emotion*. Edinburgh University Press.
- Alloa, E. (2017). *Resistance of the Sensible World. An Introduction to Merleau-Ponty*. Fordham University Press.
- Almog, M. (2018). Merleau-Ponty's Ontology of Style - Thought, Expression, and Art. *The Warwick Journal of Philosophy*, 29(1), 1–24.
- American Psychiatric Association. (1980). *Diagnostic and Statistical Manual of Mental Disorders DSM-III*. American Psychiatric Association, Washington, D.C.
- American Psychiatric Association. (1987). *Diagnostic and Statistical Manual of Mental Disorders: DSM-III-R*. American Psychiatric Association, Washington, D.C.
- American Psychiatric Association. (2013). *Diagnostic and Statistical Manual of Mental Disorders*. American Psychiatric Publishing.
- ASAN: Autistic Self Advocacy Network. (2021). *About*.
<https://autisticadvocacy.org/about-asan/>
- Ashworth, P. (2003). An approach to phenomenological psychology: the contingencies of the lifeworld. *Journal of Phenomenological Psychology*, 34(2), 145–156.
- Asperger, H. (1944). Die „Autistischen psychopathen“ im Kindesalter. *Archiv Für Psychiatrie Und Nervenkrankheiten*, 117(1), 76–136.
- Backer van Ommeren, T., Begeer, S., Scheeren, A. M., & Koot, H. M. (2012). Measuring Reciprocity in High Functioning Children and Adolescents with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*, 42(6), 1001–1010.
- Backer van Ommeren, T., Koot, H. M., Scheeren, A. M., & Begeer, S. (2015). Reliability and Validity of the Interactive Drawing Test: A Measure of Reciprocity for Children and Adolescents with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 45(7), 1967–1977.
- Bagatell, N. (2010). From cure to community: Transforming notions of autism. *Ethos*, 38(1), 33–55.
- Baron-Cohen, S. (1995). *Mindblindness. An essay on autism and theory of mind*. The MIT Press.
- Baron-Cohen, S. (2001). Theory of Mind in Normal Development and Autism. *Prisme*, 34(August), 174–183.
- Baron-Cohen, S., Leslie, A. M., & Frith, U. (1985). Does the autistic child have a “Theory of Mind”? *Cognition*, 21, 37–46.
- Bauminger, N., & Kasari, C. (2000). Loneliness and Friendship in High-Functioning Children with Autism. *Child Development*, 71(2), 447–456.
- Bettelheim, B. (1967). *The Empty Fortress: Infantile Autism and the Birth of the Self*. The Free Press.

- Biklen, D., Attfield, R., Bissonnette, L., Blackman, L., Burke, J., Frugone, A., Mukhopadhyay, T. R., & Rubin, S. (2005). *Autism and the Myth of the Person Alone*. NYU Press.
- Blankenburg, W. (1980). Phenomenology and Psychopathology. *Journal of Phenomenological Psychology, 11*(2).
- Blankenburg, W. (2001). First Steps Toward a Psychopathology of Common Sense (A. Mishara, Trans.). *Philosophy, Psychiatry, & Psychology, 8*(4), 303–315.
- Bleuler, E. (1950). *Dementia praecox or the group of schizophrenias*. International Universities Press.
- Boldsen, S. (2018). Toward a Phenomenological Account of Embodied Subjectivity in Autism. *Culture, Medicine and Psychiatry, 42*(4), 893–913.
- Boldsen, S. (2021). Social interaction style in autism: an inquiry into phenomenological methodology. *Journal of Phenomenological Psychology, 52*(2), 1–35.
- Boldsen, S. (2022a). Autism and the sensory disruption of social experience. *Frontiers in Psychology, 13*: 874268, 1-13.
- Boldsen, S. (2022b). Material encounters. A phenomenological account of social interaction in autism. *Philosophy, Psychiatry, & Psychology, 29*(3), 191-208.
- Boldsen, S. (forthcoming). Autisme, fænomenologi og kropslig diversitet. In S. Køppe, H. Winther, & J. Toft (Eds.), *Psyken i Kroppen*.
- Botha, M. (2021). Academic, Activist, or Advocate? Angry, Entangled, and Emerging: A Critical Reflection on Autism Knowledge Production. *Frontiers in Psychology, 12*.
- Bowler, D. (2007). *Autism spectrum disorders: psychological theory and research*. John Wiley & Sons.
- Boyd, B. A., McDonough, S. G., & Bodfish, J. W. (2012). Evidence-Based Behavioral Interventions for Repetitive Behaviors in Autism. *Journal of Autism and Developmental Disorders, 42*(6), 1236–1248.
- Brincker, M., & Torres, E. (2013). Noise from the periphery in autism. *Frontiers in Integrative Neuroscience, 7*, 34.
- Bryman, A. (2012). *Social Research Methods*. Oxford University Press.
- Carel, H. H. (2013). Illness, phenomenology, and philosophical method. *Theoretical Medicine and Bioethics, 34*(4).
- Catala, A., Faucher, L., & Poirier, P. (2021). Autism, epistemic injustice, and epistemic disablement: a relational account of epistemic agency. In *Synthese*.
- Cesaroni, L., & Garber, M. (1991). Exploring the experience of autism through firsthand accounts. *Journal of Autism and Developmental Disorders, 21*(3), 303–313.
- Chamak, B. (2008). Autism and social movements: French parents' associations and international autistic individuals' organisations. *Sociology of Health and Illness, 30*(1), 76–96.
- Colombetti, G., & Krueger, J. (2015). Scaffoldings of the affective mind. *Philosophical Psychology, 28*(8), 1157–1176.

- Colombi, C., Liebal, K., Tomasello, M., Young, G., Warneken, F., & Rogers, S. J. (2009). Examining correlates of cooperation in autism. Imitation, joint attention, and understanding intentions. *Autism, 13*(2), 143–163.
- Crompton, C. J., Hallett, S., Axbey, H., McAuliffe, C., & Cebula, K. (2022). ‘Someone like-minded in a big place’: Autistic young adults’ attitudes towards autistic peer support in mainstream education. *Autism*.
- Dahlberg, H., & Dahlberg, K. (2020). Phenomenology of Science and the Art of Radical Questioning. *Qualitative Inquiry, 26*(7), 889–896.
- Dant, T. (2014). In two minds: Theory of Mind, intersubjectivity, and autism. *Theory & Psychology, 25*(1), 45–62.
- de Jaegher, H. (2013). Embodiment and sense-making in autism. *Frontiers in Integrative Neuroscience, 7*, 15.
- de Jaegher, H., di Paolo, E., & Gallagher, S. (2010). Can social interaction constitute social cognition? *Trends in Cognitive Sciences, 14*(10), 441–447.
- Deligny, F. (2015). *The Arachnean and Other Texts* (D. S. Burk & C. Porter, Trans.). University of Minnesota Press, Univocal Publishing.
- Denzin, N. K., & Lincoln, Y. S. (2018). *The Sage Handbook of Qualitative Research*. Sage Publications.
- Dreyfus, H. L. (2002). Intelligence without representation – Merleau-Ponty’s critique of mental representation The relevance of phenomenology to scientific explanation. *Phenomenology and the Cognitive Sciences, 1*(4), 367–383.
- Eigsti, I.-M. (2013). A Review of Embodiment in Autism Spectrum Disorders. *Frontiers in Psychology, 4*, 224.
- Elias, J. Z. (2017). The extent of our abilities: The presence, salience, and sociality of affordances. In C. Durt, T. Fuchs, & C. Tewes (Eds.), *Embodiment, Enaction, and Culture: Investigating the Constitution of the Shared World*. The MIT Press.
- Englander, M. (2020). Phenomenological psychological interviewing. *The Humanistic Psychologist, 48*(1), 54–73.
- Englander, M., & Morley, J. (2021). Phenomenological psychology and qualitative research. *Phenomenology and the Cognitive Sciences*.
- European Commission. (2018). *Ethics in Social Science and Humanities*.
- Fantasia, V., de Jaegher, H., & Fasulo, A. (2014). We can work it Out: an enactive look at cooperation. *Frontiers in Psychology, 5*.
- Fernandez, A. V. (2017). The subject matter of phenomenological research: Existentials, modes, and prejudices. *Synthese, 194*(9), 3543–3562.
- Fletcher-Watson, S., Adams, J., Brook, K., Charman, T., Crane, L., Cusack, J., Leekam, S., Milton, D., Parr, J. R., & Pellicano, E. (2019). Making the future together: Shaping autism research through meaningful participation. *Autism, 23*(4), 943–953.
- Fournier, K. A., Hass, C. J., Naik, S. K., Lodha, N., & Cauraugh, J. H. (2010). Motor coordination in autism spectrum disorders: A synthesis and meta-analysis. *Journal of Autism and Developmental Disorders, 40*(10), 1227–1240.

- Freud, S. (1905). *Three Essays on the Theory of Sexuality*. Verso Books.
- Frith, U., & Happe, F. (1999). Theory of Mind and Self-Consciousness: What Is It Like to Be Autistic? *Mind and Language*, 14(1), 82–89.
- Frith, Uta. (1992). Asperger and his syndrome. In Uta. Frith (Ed.), *Autism and Asperger Syndrome* (p. 257). Cambridge University Press.
- Fromm-Reichmann, F. (1948). Notes on the development of treatment of schizophrenics by psychoanalytic psychotherapy. *Psychiatry*, 11(3), 263–273.
- Fuchs, T. (2013). The Phenomenology of Affectivity. In K. W. M. Fulford, M. Davies, R. G. T. Gipps, G. Graham, J. Z. Sadler, G. Stanghellini, & T. Thornton (Eds.), *The Oxford Handbook of Philosophy and Psychiatry* (pp. 612–631). Oxford University Press.
- Fuchs, T. (2015). Pathologies of Intersubjectivity in Autism and Schizophrenia. *Journal of Consciousness Studies*, 22(1), 191–214.
- Fuchs, T. (2020). Time, the Body, and the Other in Phenomenology and Psychopathology. In C. Tewes & G. Stanghellini (Eds.), *Time and Body: Phenomenological and Psychopathological Approaches* (pp. 12–40). Cambridge University Press.
- Fuchs, T., & de Jaegher, H. (2009). Enactive intersubjectivity: Participatory sense-making and mutual incorporation. *Phenomenology and the Cognitive Sciences*, 8(4), 465–486.
- Gallagher, S. (2004). Understanding Interpersonal Problems in Autism: Interaction Theory as An Alternative to Theory of Mind. *Philosophy, Psychiatry, & Psychology*, 11, 199–217.
- Gallagher, S. (2012). In Defense of Phenomenological Approaches to Social Cognition: Interacting with the Critics. *Review of Philosophy and Psychology*, 3(2), 187–212.
- Gallagher, S. (2017). *Enactivist Interventions: Rethinking the Mind*. Oxford University Press.
- Gallagher, S., & Sørensen, J. B. (2006). Experimenting with phenomenology. *Consciousness and Cognition*, 15(1).
- Gallagher, S., & Zahavi, D. (2008). The phenomenological mind. In *The Phenomenological Mind*. Routledge.
- Gibson, J. J. (1979). *The Ecological Approach to Visual Perception*. Houghton Mifflin.
- Giles, D. C. (2014). “DSM-V is taking away our identity”: The reaction of the online community to the proposed changes in the diagnosis of Asperger’s disorder. *Health (United Kingdom)*, 18(2), 179–195.
- Giorgi, A. (2009). *The descriptive phenomenological method in psychology: a modified Husserlian approach*. Duquesne University Press.
- Giorgi, A. (2012). The Descriptive Phenomenological Psychological Method. *Journal of Phenomenological Psychology*, 43(1).
- Goldman, A. (2006). *Simulating Minds: The Philosophy, Psychology, and Neuroscience of Mindreading*. Oxford University Press.
- Grandin, Temple. (1996). *Thinking in pictures: and other reports from my life with autism*. Vintage.
- Greenwood, J. D. (2009). *A conceptual history of psychology*. McGraw-Hill.
- Grohmann, T. (2017). A phenomenological account of sensorimotor difficulties in autism: Intentionality, movement, and proprioception. *Psychopathology*, 50(6), 408–415.

- Hacking, I. (2009). Autistic autobiography. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 364, 1467–1473.
- Hale, M. J. Gray., & Hale, C. Martel. (1999). *I had no means to shout!* 1st Books.
- Hamilton, J., Ingham, B., McKinnon, I., Parr, J. R., Tam, L. Y.-C., & le Couteur, A. (2017). Mental capacity to consent to research? Experiences of consenting adults with intellectual disabilities and/or autism to research. *British Journal of Learning Disabilities*, 45(4), 230–237.
- Hammersley, M., & Atkinson, P. (2007). *Ethnography. Principles in Practice*. Routledge.
- Hannant, P., Cassidy, S., Tavassoli, T., & Mann, F. (2016). Sensorimotor Difficulties Are Associated with the Severity of Autism Spectrum Conditions. *Frontiers in Integrative Neuroscience*, 10, 28.
- Happe, F., & Frith, U. (2006). The weak coherence account: Detail-focused cognitive style in autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 36(1), 5–25.
- Hedley, D., & Young, R. (2006). Social comparison processes and depressive symptoms in children and adolescents with Asperger syndrome. *Autism*, 10(2), 139–153.
- Hens, K. (2021). *Towards an Ethics of Autism: A Philosophical Exploration*. Open Book Publishers.
- Hens, K., Robeyns, I., & Schaubroeck, K. (2019). The ethics of autism. *Philosophy Compass*, 14(1), 1–11.
- Hilton, L. (2015). Mapping the Wander Lines: The Quiet Revelations of Fernand Deligny. *Los Angeles Review of Books*.
- Hoerl, C. (2013). Jaspers on explaining and understanding in psychiatry. In T. Fuchs & G. Stanghellini (Eds.), *One Hundred Years of Karl Jaspers' General Psychopathology*. Oxford University Press.
- Høffding, S., & Martiny, K. (2016). Framing a phenomenological interview: what, why and how. *Phenomenology and the Cognitive Sciences*, 15, 539–564.
- Honer, A., & Hitzler, R. (2015). Life-World-Analytical Ethnography: A Phenomenology-Based Research Approach. *Journal of Contemporary Ethnography*, 44(5), 544–562.
- Howlin, P. (1997). Prognosis in autism: do specialist treatments affect long-term outcome? *European Child & Adolescent Psychiatry*, 6(2), 55–72.
- Howlin, P. (2004). *Autism and Asperger Syndrome: Preparing for Adulthood*. Taylor & Francis.
- Hull, L., Petrides, K. v, Allison, C., Smith, P., Baron-Cohen, S., Lai, M.-C., & Mandy, W. (2017). “Putting on My Best Normal”: Social Camouflaging in Adults with Autism Spectrum Conditions. *Journal of Autism and Developmental Disorders*, 47(8), 2519–2534.
- Humphrey, N., & Symes, W. (2010). Perceptions of social support and experience of bullying among pupils with autistic spectrum disorders in mainstream secondary schools. *European Journal of Special Needs Education*, 25(1), 77–91.
- Husserl, E. (1973). *Zur Phänomenologie der Intersubjektivität: Texte aus dem Nachlass Zweiter Teil: 1921–1928*. Springer Netherlands.

- Husserl, E. (1982). *Cartesian Meditations. An Introduction to Phenomenology*. Martinus Nijhoff Publishers.
- Husserl, E. (1983). *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy: First Book: General Introduction to a Pure Phenomenology*. Springer Netherlands.
- Husserl, E. (1989). *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy - Second Book: Studies in the Phenomenology of Constitution*. Kluwer Academic Publishers.
- Husserl, E. (2001). *Logical Investigations: Prolegomena to pure logic*. Routledge.
- Jaspers, K. (1913). *General Psychopathology*. Johns Hopkins University Press.
- Kanner, L. (1943). Autistic disturbances of affective contact. *Nervous Child*, 2, 217–250.
- Kanner, L. (1949). Problems of nosology and psychodynamics of early infantile autism. *American Journal of Orthopsychiatry*, 19(3), 416–426.
- Kanner, L. (1973). The birth of early infantile autism. *Journal of Autism and Childhood Schizophrenia*, 3(2), 93–95.
- Kapp, S. S., Gantman, A., & Laugeson, E. a. (2011). Transition to Adulthood for High-Functioning Individuals with Autism Spectrum Disorders. *A Comprehensive Book on Autism Spectrum Disorders*, 452–477.
- Kassiane S. (2012, October 4). *What is an Ally?* ASAN: Autistic Self-Advocacy Network.
- Krueger, J. (2018). Direct Social Perception. In A. Newen, L. de Bruin, & G. Shaun (Eds.), *The Oxford Handbook of 4E Cognition*. Oxford University Press.
- Krueger, J. (2021). Finding (and losing) one’s way: autism, social impairments, and the politics of space. *Phenomenology and Mind*, 21:20-33.
- Krueger, J., & Michael, J. (2012). Gestural coupling and social cognition: Moebius Syndrome as a case study. *Frontiers in Human Neuroscience*, 6, 81.
- Kvale, S. (2013). *Doing Interviews*. Sage.
- Lajoie, C., & Douglas, E. (2020). A Crip Queer Dialogue on Sickness. *Puncta*, 3(2).
- Leary, M. R., & Hill, D. A. (1996). Moving on: autism and movement disturbance. *Mental Retardation*, 34, 39–53.
- Leslie, A. M. (1987). Pretense and Representation: The Origins of “Theory of Mind.” *Psychological Review*, 94(4), 412–426.
- Leslie, A. M. (1994). Pretending and believing: issues in the theory of ToMM. *Cognition*, 50(1–3), 211–238.
- Liebal, K., Colombi, C., Rogers, S. J., Warneken, F., & Tomasello, M. (2008). Helping and Cooperation in Children with Autism. *Journal of Autism and Developmental Disorders*, 38(2), 224–238.
- Locke, J., Ishijima, E. H., Kasari, C., & London, N. (2010). Loneliness, friendship quality and the social networks of adolescents with high-functioning autism in an inclusive school setting. *Journal of Research in Special Educational Needs*, 10(2), 74–81.
- Maiese, M. (2013). Autism, Empathy, and Affective Framing. In J. L. Anderson & S. Cushing (Eds.), *The Philosophy of Autism*. Rowman & Littlefield Publishers.
- Martiny, K. (2015). How to develop a phenomenological model of disability. *Medicine, Health Care and Philosophy*, 18(4).

- McGeer, V. (2005). Out of the mouths of autistics: Subjective report and its role in cognitive theorizing. In A. Brook & K. Akins (Eds.), *Cognition and the Brain: The Philosophy and Neuroscience Movement*. Cambridge University Press.
- McGlensey, M. (2016, February 11). *21 People Describe What Sensory Overload Feels Like*. The Mighty.
- McVey, A. J., Dolan, B. K., Willar, K. S., Pleiss, S., Karst, J. S., Casnar, C. L., Caiozzo, C., Vogt, E. M., Gordon, N. S., & van Hecke, A. V. (2016). A Replication and Extension of the PEERS® for Young Adults Social Skills Intervention: Examining Effects on Social Skills and Social Anxiety in Young Adults with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, *46*(12), 3739–3754.
- Menary, R. (2010). Introduction to the special issue on 4E cognition. *Phenomenology and the Cognitive Sciences*, *9*(4), 459–463.
- Merleau-Ponty, M. (1964a). *Sense and non-sense*. Northwestern University Press.
- Merleau-Ponty, M. (1964b). *Signs*. Northwestern University Press.
- Merleau-Ponty, M. (1964c). The Child's Relation with Others. In *The Primacy of Perception*. Northwestern University Press.
- Merleau-Ponty, M. (2004). *The World of Perception*. Routledge.
- Merleau-Ponty, M. (2012). *Phenomenology of Perception* (D. Landes, Trans.). Routledge.
- Milton, D. (2012). On the ontological status of autism: the 'double empathy problem.' *Disability & Society*, *27*(6), 883–887.
- Milton, D. (2013). 'Nothing about us, without us': the autism research agenda. *APPGA Panel Debate on Autism and Research, Spring 2013, London, UK*.
- Milton, D. (2014). Autistic expertise: A critical reflection on the production of knowledge in autism studies. *Autism*, *18*(7), 794–802.
- Milton, D., & Bracher, M. (2013). Autistics speak but are they heard? *Medical Sociology Online*, *61*(2).
- Milton, D., Mills, R., & Pellicano, E. (2012). Ethics and Autism: Where is the Autistic Voice? Commentary on Post et al. *Journal of Autism and Developmental Disorders*, *44*(10), 2650–2651.
- Minkowski, E. (1927). *La Schizophrénie. Psychopathologie des Schizoïdes et des Schizophrènes*. Payot.
- Moran, D. (2017). Intercorporeality and Intersubjectivity: A Phenomenological Exploration of Embodiment. In C. Durt, T. Fuchs, & C. Tewes (Eds.), *Embodiment, Enaction, and Culture: Investigating the Constitution of the Shared World*. MIT Press.
- Mukhopadhyay, T. Rajarshi. (2011). *How can I talk if my lips don't move: inside my autistic mind*. Arcade Publishing.
- Ne'eman, A. (2013). Autism and the Disability Community: The Politics of Neurodiversity, Causation and Cure. *Presented on October 29, 2013, at the Disability Studies Initiative at Emory University*.
- Newell, A., Shaw, J. C., & Simon, H. A. (1958). Elements of a theory of human problem solving. *Psychological Review*, *65*(3), 151–166.

- Newen, A., de Bruin, L., & Gallagher, S. (2018). 4E Cognition. Historical Roots, Key Concepts, and Central Issues. In A. Newen, L. de Bruin, & S. Gallagher (Eds.), *The Oxford Handbook of 4E Cognition*. Oxford University Press.
- Nilsson, M., Handest, P., Nylander, L., Pedersen, L., Carlsson, J., & Arnfred, S. (2019). Arguments for a Phenomenologically Informed Clinical Approach to Autism Spectrum Disorder. *Psychopathology*, *52*(3), 153–160.
- O’Neil, S. (2008). The meaning of autism: Beyond disorder. *Disability and Society*, *23*(7), 787–799.
- Osler, L. (2021). Taking empathy online. *Inquiry: An Interdisciplinary Journal of Philosophy*.
- Ozonoff, S., Pennington, B. F., & Rogers, S. J. (1991). Executive function deficits in high-functioning autistic individuals: Relationship to theory of mind. *The Journal of Child Psychology and Psychiatry*, *32*(7), 1081–1105.
- Pedersen, S., & Bang, J. (2016). Historicizing affordance theory: A rendezvous between ecological psychology and cultural-historical activity theory. *Theory & Psychology*, *26*(6), 731–750.
- Pellicano, E., & Stears, M. (2019). Commentary 1: Weksler-Derri et al. “Ethical Challenges in Participatory Research with Autistic Adults in Israel.” *Journal of Empirical Research on Human Research Ethics*, *14*(5), 452–454.
- Peper, C., E., van der Wal, S. J., & Begeer, S. (2016). Autism in Action: Reduced Bodily Connectedness during Social Interactions? *Frontiers in Psychology*, *7*, 1862.
- Petitmengin, C. (2006). Describing one’s subjective experience in the second person: An interview method for the science of consciousness. *Phenomenology and the Cognitive Sciences*, *5*(3–4), 229–269.
- Pink, S. (2009). *Doing Sensory Ethnography*. SAGE Publications.
- Prince-Hughes, D. (2002). *Aquamarine blue 5: Personal stories of college students with autism*. Ohio University Press.
- PwC, & VIVE. (2020). *Unge med autisme og overgangen til et selvstændigt liv. Kortlægning af praksis*.
- Ravn, S. (2021). Integrating qualitative research methodologies and phenomenology—using dancers’ and athletes’ experiences for phenomenological analysis. *Phenomenology and the Cognitive Sciences*.
- Ravn, S., & Høffding, S. (2016). The promise of ‘sporting bodies’ in phenomenological thinking – how exceptional cases of practice can contribute to develop foundational phenomenological concepts. *Qualitative Research in Sport, Exercise and Health*, *9*, 1–13.
- Reddy, V., & Morris, P. (2004). Participants Don’t Need Theories. *Theory & Psychology*, *14*(5), 647–665.
- Regulation (EU) 2016/679 of the European Parliament and of the Council. (2016). on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation). *Official Journal of the European Union*, *L 119*, 1–88.
- Rietveld, E., de Haan, S., & Denys, D. (2013). Social affordances in context: What is it that we are bodily responsive to? *The Behavioral and Brain Sciences*, *36*, 436.

- Ritunnano, R. (2022). Overcoming Hermeneutical Injustice in Mental Health: A Role for Critical Phenomenology. *Journal of the British Society for Phenomenology*, 1–18.
- Roald, T., K ppe, S., Bechmann Jensen, T., Hansen, J., & Levin, K. (2021). Why Do We Always Generalize in Qualitative Research. *Qualitative Psychology*, 8, 69–81.
- Robertson, A. E., & Simmons, D. R. (2013). The Relationship between Sensory Sensitivity and Autistic Traits in the General Population. *Journal of Autism and Developmental Disorders*, 43(4), 775–784.
- Robledo, J., Donnellan, A. M., & Strandt-Conroy, K. (2012). An exploration of sensory and movement differences from the perspective of individuals with autism. *Frontiers in Integrative Neuroscience*, 6, 107.
- Roser, K. (1996). A review of psychoanalytic theory and treatment of childhood autism. *Psychoanal Rev*, 83(3), 325–341.
- Rowlands, M. (2010). *The New Sciences of the Mind. From Extended Mind to Embodied Phenomenology*. The MIT Press.
- Rubin, S., Biklen, D., Kasa-Hendrickson, C., Kluth, P., Cardinal, D. N., & Broderick, A. (2001). Independence, participation, and the meaning of intellectual ability. *Disability and Society*, 16(3), 415–429.
- Salamon, G. (2012). The Phenomenology of Rheumatology: Disability, Merleau-Ponty, and the Fallacy of Maximal Grip. *Hypatia*, 27(2).
- Sass, L., & Parnas, J. (2003). Schizophrenia, consciousness, and the self. *Schizophrenia Bulletin*, 29(3), 427–444.
- Scheler, M. (2008). *The Nature of Sympathy*. Transaction Publishers.
- Shtayermman, O. (2007). Peer Victimization in Adolescents and Young Adults Diagnosed with Asperger’s Syndrome: A Link to Depressive Symptomatology, Anxiety Symptomatology and Suicidal Ideation. *Issues in Comprehensive Pediatric Nursing*, 30(3), 87–107.
- Silberman, S. (2017). *Neurotribes: The legacy of autism and how to think smarter about people who think differently*. Atlantic Books.
- Silverman, C. (2008). Fieldwork on Another Planet: Social Science Perspectives on the Autism Spectrum. *BioSocieties*, 3(3), 325–341.
- Sinclair, J. (1993). Don’t Mourn for Us. *Our Voice*, 1(3).
- Sinclair, J. (2005). *Autism Network International: The Development of a Community and Its Culture*. ANI: Autism Network International.
- Sinclair, J. (2010). Being autistic together. *Disability Studies Quarterly*, 30(1).
- Singer, L. (1981). Merleau-ponty on the concept of style. *Man and World*, 14(2).
- Smith, J. (2009). *Interpretative Phenomenological Analysis: Theory, Method and Research*. Sage Publications.
- Bekendtg relse af lov om social service, Pub. L. No. LBK nr 1114 af 30/08/2018, Lovtidende A (2018).

- Sousa, D. (2014). Validation in Qualitative Research: General Aspects and Specificities of the Descriptive Phenomenological Method. *Qualitative Research in Psychology*, 11(2), 211–227.
- Spiegelberg, H. (1942). Phenomenology of Direct Evidence. *Philosophy and Phenomenological Research*, 2(4), 427–456.
- Stanghellini, G., Broome, M. R., Fernandez, A. V., Fusar-Poli, P., Raballo, A., & Rosfort, R. (2019). Introduction. In G. Stanghellini, M. Broome, A. Raballo, A. Fernandez, P. Fusar-Poli, & R. Rosfort (Eds.), *The Oxford Handbook of Phenomenological Psychopathology* (pp. xx–8). Oxford University Press.
- Sterwald, C., & Baker, J. (2019). Frosted Intellectuals: How Dr. Leo Kanner Constructed the Autistic Family. *Perspectives in Biology and Medicine*, 62, 690–709.
- Stokes, M., Newton, N., & Kaur, A. (2007). Stalking, and Social and Romantic Functioning Among Adolescents and Adults with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 37, 1969–1986.
- Straus, J. N. (2013). Autism as culture. In L. J. Davis (Ed.), *The Disability Studies Reader* (Fourth Ed.). Routledge.
- Tanaka, S. (2015). Intercorporeality as a theory of social cognition. *Theory & Psychology*, 25(4), 455–472.
- Thoma, S., & Fuchs, T. (2017). A Phenomenology of Sensus Communis: Outline of a Phenomenological Approach to Social Psychiatry. In M. Englander (Ed.), *Phenomenology and the Social Context of Psychiatry: Social Relations, Psychopathology, and Husserl's Philosophy* (pp. 137–160). Bloomsbury Academic.
- Torres, E., Brincker, M., Isenhower, R., Yanovich, P., Stigler, K., Nurnberger, J. I., Metaxas, D., & Jose, J. (2013). Autism: the micro-movement perspective. In *Frontiers in Integrative Neuroscience*, 7, 32.
- Torres, E., & Donnellan, A. (2015). Editorial for research topic “Autism: the movement perspective.” *Frontiers in Integrative Neuroscience*, 9, 12.
- Tustin, F. (1992). *Autistic States in Children*. Routledge.
- Usher, L., Burrows, C., Schwartz, C., & Henderson, H. (2015). Social Competence with an Unfamiliar Peer in Children and Adolescents with High Functioning Autism: Measurement and Individual Differences. *Research in Autism Spectrum Disorders*, 17, 25–39.
- van Manen, M. (1990). *Researching lived experience: Human science for an action sensitive pedagogy*. State University of New York Press.
- Verhoeff, B. (2013). Autism in flux: A history of the concept from Leo Kanner to DSM-5. *History of Psychiatry*, 24(4), 442–458.
- Walker, N. (2021, May 23). Neurodiversity: Some Basic Terms & Definitions. *Planet Neurodivergent*.
- Walsh, P. J. (2020). Intercorporeity and the first-person plural in Merleau-Ponty. *Continental Philosophy Review*, 53(1).

- Weiss, G., Murphy, A. v., & Salamon, G. (2020). *50 Concepts for a Critical Phenomenology*. Northwestern University Press.
- Wertz, F. (1987). Cognitive psychology and the understanding of perception. *Journal of Phenomenological Psychology, 18*(1–2), 103–142.
- Wertz, F., Charmaz, K., McMullen, L. M., Josselson, R., Anderson, R., & McSpadden, E. (2011). *Five ways of doing qualitative analysis: phenomenological psychology, grounded theory, discourse analysis, narrative research, and intuitive inquiry*. Guilford Press.
- Whitney, S. (2014). *Affect and difference in the philosophy of Merleau-Ponty*.
- Willey, L. Holliday. (1999). *Pretending to be Normal: Living with Asperger's Syndrome (Autism Spectrum Disorder)*. Jessica Kingsley Publishers.
- Williams, D. (1992). *Nobody nowhere: the remarkable autobiography of an autistic girl*. Doubleday.
- Williams, E., Costall, A., & Reddy, V. (2018). Autism and Triadic Play: An Object Lesson in the Mutuality of the Social and Material. *Ecological Psychology, 30*(2), 146–173.
- Wimmer, H., & Perner, J. (1983). Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception. *Cognition, 13*(1), 103–128.
- Wing, L. (1981a). Asperger's syndrome: a clinical account. *Psychological Medicine, 11*(1), 115–129.
- Wing, L. (1981b). Language, social, and cognitive impairments in autism and severe mental retardation. *Journal of Autism and Developmental Disorders, 11*(1), 31–44.
- Wing, L., & Gould, J. (1979). Severe Impairments of Social Interaction and Associated Abnormalities in Children: Epidemiology and Classification. *Journal of Autism and Developmental Disorders, 9*(1).
- World Health Organization. (2018). *International statistical classification of diseases and related health problems (11th Revision)*. World Health Organisation.
- Zahavi, D. (2001). Beyond empathy: Phenomenological Approaches to Intersubjectivity. *Journal of Consciousness Studies, 8*(5–7), 151–167.
- Zahavi, D. (2003). *Husserl's Phenomenology*. Stanford University Press.
- Zahavi, D. (2005). *Subjectivity and Selfhood - Investigating the First Person Perspective*. The MIT Press.
- Zahavi, D. (2010). Complexities of self. *Autism, 14*(5), 547–551.
- Zahavi, D. (2019). Applied phenomenology: why it is safe to ignore the epoché. *Continental Philosophy Review*.
- Zahavi, D., & Loidolt, S. (2022). Critical phenomenology and psychiatry. *Continental Philosophy Review, 55* (1):55-75.
- Zahavi, D., & Martiny, K. (2019). Phenomenology in Nursing Studies: New perspectives. *International Journal of Nursing Studies, 93*.
- Zahavi, D., & Parnas, J. (1998). Phenomenal consciousness and self-awareness: A phenomenological critique of representational theory. *Article in Journal of Consciousness Studies, 5*(5–6), 687–705.

Zahavi, D., & Parnas, J. (2003). Conceptual Problems in Infantile Autism Research: Why Cognitive Science Needs Phenomenology. *Journal of Consciousness Studies*, 10(9–10), 53–71.

Appendices

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Appendix 5: Fernand Deligny, Lignes d'erre, 1976

³⁵ The following documents have been translated to English and anonymized for publication in this dissertation.

Appendix 1: Declaration of consent

Invitation to participation in the research project
**Autistic perspectives on
SOCIAL INTERACTION**

How do young autistic persons experience being with others? And how do they practice “being together”?

My name is Sofie Boldsen, and I am exploring these perspectives in my PhD project in collaboration with [REDACTED]. To answer these questions, I will participate, conduct observations, and interviews in the autism groups held by [REDACTED] – including your autism group. This is why I am seeking consent from you concerning participation in my research project. I am seeking permission to collect and use the data for answering my research questions and publish the results in publically available research articles, present at conferences, seminars, or as part of teaching activities.

Roskilde University will store the data until the research project is finalized (expected deadline February 1st 2021) and 10 years after the project is finalized.

Below, you will find information about the project, and what it involves to participate. You can read more about the project here:

[https://www.\[REDACTED\]](https://www.[REDACTED])

Your rights as a participant

- *Voluntariness:* Participation in the project is voluntary. This means that I cannot legally use the material without your consent. You can withdraw your consent at any time and stop participating in the project in which case I will delete all data involving you.
- *Confidentiality:* The collected data will be stored securely. When storing on portable devices, such as computer, phone, or harddisk, the data will be encrypted according to a justifiable standard.
- *Anonymity:* As a participant in the research project, you will be anonymous. This means that I will not use information that can identify you and use pseudonyms for names, place names, institutions, work places, schools, etc.
- *Access:* You have the right to access to all data involving you. You can also have the research report handed out once the research project is finalized.
- *Right to complain.* You can always file a complaint with The Danish Data Protection Agency. For contact information, follow this link: www.datatilsynet.dk.

Declaration from the participant:

I have received oral information about the research project and I know enough about its purpose, method, risks and benefits to consent to participation. I know that participation is voluntary, and that I do not have to answer any questions I do not want to answer. Participation is anonymous and this means that I will not be mentioned by name in any part of the communication of research results.

My data will be stored as long as it is necessary, but I can at any given time request that my data will be deleted or removed from the project.

10 years after the project is finalized, the data material will be anonymized completely, so we will no longer have the opportunity to contact you.

Can we keep your contact information on the data base indefinitely? Yes No

The data may be used for future projects: Yes No

Name: _____

Date: _____ Signature: _____

If approved, e-mail address: _____

Declaration from parent/guardian if participant is minor:

I have received oral information about the research project and I know enough about its purpose, method, risks and benefits to consent to participation on behalf of my child. I know that participation is voluntary, and that my child does not have to answer any questions he/she does not want to answer. Participation is anonymous and this means that my child will not be mentioned by name in any part of the communication of research results.

My child's data will be stored as long as it is necessary, but I can at any given time request that my child's data will be deleted or removed from the project.

10 years after the project is finalized, the data material will be anonymized completely, so we will no longer have the opportunity to contact you.

Can we keep your contact information on the data base indefinitely? Yes No

The data may be used for future projects: Yes No

Name: _____

Date: _____ Signature: _____

If approved, e-mail address: _____

Declaration from the project leader

I declare with this signature, that the participant has received oral and written information about the research project, their rights as a research participant, and have had the opportunity to ask any questions that they might have.

According to my belief, sufficient information has been given for the participant to make a decision concerning participation in the research project.

Name: _____

Date: _____ Signature: _____

Questions and contact

If you have any questions or concerns, feel free to contact me:

Sofie Boldsen
boldsen@ruc.dk
Telefon: +45 61 79 69 65

In collaboration with:

You are also welcome to contact the data protection officer at Roskilde University: dpo@ruc.dk.

Appendix 2: Interview guides

First interview guide

Theme	Interview questions
<i>Introduction</i>	<p>Thank you for participating The interview will be about your experience of being together with other people – both in and outside of the group. I know it can be a sensitive topic to talk about. Personal boundaries – you don't need to answer anything you don't want to. If you need a break or interrupt the interview, just let me know. If you need to talk to anyone after the interview, [REDACTED] is available.</p>
<i>Autism</i>	<p>When were you diagnosed with autism? What were the circumstances that led to the diagnosis? What was your life situation at that time? Do you remember when you were first told about your autism diagnosis? What did you think and feel? Did you feel different from your peers? How? If yes, when did you feel different for the first time? Do you remember a concrete situation or example? How do you feel about your autism diagnosis now? What does it describe about you? Personality? Thought patterns? Behavior? Problems? Strengths?</p>
<i>Experience of being with others</i>	<p>On a general level, how do you feel about being together with others? Do you like it? Is it difficult? Easy? Do you have a best friend? What do you do together? How do you feel when you are with them? How is it different from how you are feeling while being with others? How do you feel about meeting new people? Is it difficult? Easy? Do you seek it out? Or avoid it? Can you think of a situation where you met someone for the first time recently?</p>
<i>Experience of being with others – in relation to autism specifically</i>	<p>Why did you start participating in the autism group? Do you remember the first time you went to the autism group? What were your thoughts? Feelings? Expectations? Do you remember what happened and what you were doing? What is the purpose of the autism groups, in your opinion? What does one do in the groups? Describe a typical group night. Do you feel part of the group? If yes, how? What do you have in common with the others in the group? And how are you different? Do you think there is a difference between being with peers that have autism and peers that do not have autism? In what way? Is it easier? Harder? Do you do other things? Examples?</p>
<i>Questions about specific observations</i>	

Final interview guide

1. Anonymity, voluntary participation
2. Introduction: Research on young autistic persons' social experiences.
3. Social experiences can be both positive and negative, comfortable or stressful, etc. I would like to talk with you about your experiences of social situations and interactions. Can you first describe a social situation which you experienced as difficult?
4. Elicitation: *Purpose – to describe the situation and experience in as much detail as possible.*
 - a. Context: Where, when, and with whom? What led to the situation?
 - b. Process: What happens first? What happens next?
 - c. What makes the situation difficult?
 - d. Start with a concrete moment.
 - e. Sensation. What do you hear around you? What do you see? Smell? Feel? How would you describe the atmosphere? What is happening in your body?
 - f. Process: What happens then? What do you do?
 - g. *Move between process and sensation.*
5. Now we have tried to describe this situation in as great detail as possible. Was this okay for you? Is there something we didn't talk about or something you want to add?
6. I would like to ask you more generally: What is it like for you to be together with other people?
7. Are there situations where it is easier? Can you describe a situation where you felt safe and comfortable in a social situation or in the interaction with another person?
8. Elicitation: *Purpose – to describe the situation and experience in as much detail as possible.*
 - a. Context: Where, when, and with whom? What led to the situation?
 - b. Process: What happens first? What happens next?
 - c. What makes the situation difficult?
 - d. Start with a concrete moment.
 - e. Sensation. What do you hear around you? What do you see? Smell? Feel? How would you describe the atmosphere? What is happening in your body?
 - f. Process: What happens then? What do you do?
 - g. *Move between process and sensation.*
9. In this last part of the interview I would like to ask you a bit more generally about your history.
 - a. When were you diagnosed with autism?
 - b. What led up to getting your diagnosis?
 - c. What did you think when you learned about your autism? What are your thoughts today?
 - d. How has it been for you to start in this group?
 - e. What does it mean for you to meet other young people who also have an autism diagnosis?

Appendix 3: Excerpts from interview transcripts

Excerpt from interview 8/5-19

00.01.56. Interviewer. Okay good. I think that, um, many people know about feeling bad in social situations or feeling that you are somehow stressed or uncomfortable. And that it can be different from person to person what it is. So I would like to hear if, well, is this something you are experiencing in your life and what is that like for you?

00.02.44. Interviewee. So I can talk to people just fine, like, go up and have a conversation with someone, at least people I know. But something like having to go to the doctor or having to call people or having to go to stores or something like that. I don't do that. Um. And I also can't, uh, go anywhere where I have to contact someone without my parents being there. So something about, like, having to make the contact, it's really hard.

00.03.15. Interviewer. To make the contact [Yes]. Yes.

00.03.17. Interviewee. And it's actually also uncomfortable if, for example, you are sitting in the bus, and um, a person you do not know come up and just poke you on the shoulder and say something or contact you or ask you something. And it's not because you do not want to help, it's just, you do not really know how to react. All of a sudden, you are put in this situation and then you have to answer and think and act. Um. So, there are no problems socially with having to talk like that when you are out among people and such, it is more approaching and reacting on what people say that can be stressful.

00.03.53. Interviewer. And what, well, now I'm just a little curious, but what do you think, like, what's the difference for you between these two situations, going up and talking to people and then having to approach or make contact?

00.04.09. Interviewee. Well, when you go up and have to ask about something, then there has to be a lot of thoughts behind it. It can both be, like, asking in a supermarket, then you can stand and think afterwards 'shut up, how stupid was it really that I, I knew very well that the milk was down there' or something like that. Um, yes, and if you, like, have to ask something, it can be like, maybe you think it is stupid, or you don't really feel like talking to the person. And then just having to go and start a conversation, so, it's a bit, well, you don't know the person, and I do not know how I will react, so, well, in general strangers are difficult, because you can't really figure out how the situation is going to go.

00.05.01. Interviewer. Um. Can you think of, uh, about the last time you felt that way? For example, having to start a conversation and you didn't feel it was so nice?

00.05.14. Interviewee. Uhm, well, I remember when I was going out, now it's actually a hobby, but when I was going out to the [REDACTED] the first time, I stood there a bit at the bus stop and thought 'ah, should I take the bus home again, or should I actually go down and talk to her'. Um, and also when we were at the doctor and my mother has just pushed me in and said 'you just have to go in and show your health insurance card', then you can become a little 'mmmmhm actually not', you get like the chills, do not really want to go in, even if you well, well, I do not know the secretary but I have talked to her before, and it is just a little... to have to go in and say something to her. It will be a little...

00.05.56. Interviewer. Um, but for example, going in to scan the health insurance card by a secretary that you don't know so well. Would that be a good example of a social situation that you didn't feel good in?

00.06.08. Interviewee. Yes, in general something like, uhm, both going to the doctor's, but also at the library if you have to, like, if something goes wrong with your card or something, something where you

have to go and ask, and where you could think that it might be stupid question. It can be really difficult. And there is probably also something about saying things out loud in class. I have had good grades throughout, but at one point my class teacher said that, because she knew I could, I got this 7, but I was actually at a 02 because I didn't dare say anything of fear that it was wrong. So something like having to say some things, ask some questions and then think afterwards 'was it stupid what I said or was it not stupid what I said?'

00.06.59. Interviewer. Um, so there is something about saying something or having to make contact and you're afraid that what you are saying is stupid or wrong. Is it the same as, so you also mentioned that if people poke you on the shoulder in the bus and have to ask you for something, is it the same feeling or are they different?

00.07.23. Interviewee. Well, it feels a bit like being caught in a situation where you can't really walk away, because you can't really ignore people, because they have just poked you and want contact. It's something else if people shout something through the bus, then you, if you have your headphones in, think 'oh well'. But when people turn to you directly, and you stand there and have to answer, then you feel a little trapped, if you do not want to answer or do not know the answer, then it may well be like that... You have to come up with an answer and you have to hurry, and you do not really know what this answer produces. It's a bit of the same situation, yes.

00.08.02. Interviewer. Yes. Is it something you experienced recently?

00.08.04. Interviewee. Um. I actually have, on the way, sometimes, the trains that go to [REDACTED] they stop in our [REDACTED], and then they stop in [REDACTED], and then they stop at [REDACTED], and then on the stretch there, there are many standing down on our platform and asking what direction they should go and stuff like that. And then they approach you. And there I am, on purpose, starting to take headphones in and turn up so people can hear there is music in. Um, and then on purpose avoid eye contact, because, then, you know it's that stretch, it is uncomfortable every time, so it's pretty much every time you take the train that someone comes and asks, 'is that the way [REDACTED] or is that the way?' So...

00.08.52. Interviewer. I'm very curious about how it's actually experienced, and in these kinds of situations, it might sometimes be easier to talk about it very concretely and in detail, and if you can remember a particular situation where you felt that way, or where it happened. And I don't know if you, if you can think of a specific situation where you felt that way, or where someone asked you anyway even if you had headphones on or?

00.09.23. Interviewee. There are many times where you stand inside the train, and you stand quite close sometimes, uh, because there is rush hour, and then when you start to go out towards [REDACTED] and people have got off at [REDACTED], then there is many who just have to know 'when is the [REDACTED]' and stuff like that, and it's often even if you have music in, then it's just the person sitting next to you that you poke on the shoulder. And then there are many times where you, like, deliberately try to avoid that, like, maybe by standing in a corner or something, but there are many times where people still poke you, and so you sit there, with, like, cold sweats and do not really know what to answer, and mess the words up a bit. You feel a little strange and very conscious of your movements, and... You feel a little strange.

00.10.12. Interviewer. Yes. Yes. And in such a situation there, I don't know if you are thinking about a specific situation or if you are talking in general, but can you try to describe, like, how are you feeling up to, that is, when you just ride in the train normally, or when you ride on this stretch, so... Yes, how, how are you feeling before someone contacts you?

00.10.38. Interviewee [redacted] p the stretch from [redacted] to [redacted] I have taken half a million times, because both friends and boyfriends and other people just can't figure out where to get off and some of the trains only run to the [redacted], so I have gone and picked them up, so there I have driven a lot back and forth, and every time I go by train somewhere, I also go in there. So right on the stretch there, I'm fine. Um. And then, then I sit and feel quite cosy, and you think 'everything goes fine' and the trains run on time, and you get to your train on time, and... And then you sit a little, and you know that there is a group that speaks English or another language next to you, and then you sit and think that 'it may well be that they will ask' and then you get off at the station, and then you get poked on the shoulder, and they say that they have seen you on the train and stuff like that, and then you stand there and have to be responsible for this. And you, well, it's a bit like the world stops. You get, you have chills running down your spine, and you get so strangely stiff in the body, and warm in the cheeks, and... It feels like, well, you went from feeling so light and liberated and feeling like you were on your way out to do something, to now almost feeling trapped in a cage, where you just have to stand there and you just have to answer.

00.12.06. Interviewer. And, uh, so they contact you before you get off the train?

00.12.10. Interviewee. It's a little different, some do it on the train because they want to know it before they get off. Uh or if they get off at the right place. Uh, and others do it on the platform because then they just saw you me on the train and think I probably know where they should go.

00.12.24. Interviewer. But there was a situation, where you are sitting and there are people around you speaking English. And already there...

00.12.33. Interviewee. Yes, it was the other day, and I don't remember what I was doing, but I was going to [redacted] I think, yes, I was going to the movie with a fiend. And this person was sitting, one of them spoke French, Italian, or something, I didn't really understand it, and the others were speaking English, and then, he says [redacted] and then you just sit and look up because there is some information about when this and that are driving, and then you get poked on the shoulder, and you just know that now you are trapped. And then it was like, she wasn't speaking English well, and the first thing was that you couldn't understand what she was saying, because it was a really crappy school English, and then she was just a lot... Like, I had to answer, and she kept asking about the same, and I felt kind of, uncomfortable that, that, that thing where people perhaps look at you, and then there is this weird lady there talking to you. And then I felt very pressured, also because I had to answer before getting off. And I know that, from when he says that there is [redacted] and until where are there, there is only two minutes. So I didn't have time, I was just sitting there and I had to pack my things. And that is kind of... pressured.

Excerpt from interview 3/4-2019

00.14.39. Interviewer. Uhh. Yeah, so they are talking a lot and you are very quiet, and it all feels very overwhelming. Can you try to describe in more detail this feeling of being overwhelmed? How does it feel?

00.14.59. Interviewee. Yes... Um [very long pause]. Um, how do you mean?

00.15.37. Interviewer. Hmm, yeah what do I mean [both laugh]. Um [pause] Some have the feeling that everything goes too fast, or not feeling able to keep up. Some have a feeling of being overwhelmed, for example that everything sounds very loud, or that they can not really separate the voices. Someone may have a feeling that they are trying to shut themselves in, or trying to shield themselves.

00.16.23. Interviewee. Yes. [music starts playing in the background]. Yes Yes. So the sound level seems very high maybe. And yes, it might flow a little bit together, kind of like when there are more people talking, it turns into some noise in the background that just seems very pressing in a way. Yes, I get quite tense in my body. Yes.

00.17.07. Interviewer. And what, what do you think to yourself in such situations?

00.17.23. Interviewee. Yes [pause] Sorry, I...

00.17.29. Interviewer. It's totally okay. Is it distracting with the music and the sound? I'm wondering if we should just try to find another place?

00.17.37. Interviewee. Yes.

00.17.38. Interviewer. Sounds like it's coming from there, there's actually some rooms further down the hallway too, so, I don't know, we should just move and see if it's better.

00.17.48. Interviewee. Yes

00.17.51. [we move to another room]

00.19.04. Interviewer. You don't have to feel stressed about finding an answer or anything.

00.19.09. Interviewee. I may feel a little, but [pause] I think that maybe it's a little silly that I feel like that, that I should try to relax, and... I do not know, I [pause] might try to focus on something.

00.19.38. Interviewer. So you are in this situation and you feel tense, and then [pause] do you follow the conversation?

00.19.51. Interviewee. No.

00.19.54. Interviewer. So they just talk and you don't really follow...

00.19.59. Interviewee. Well, I hear it, but I don't follow it in the same way.

00.20.08. Interviewer. So you are not trying to relate or think about what you should say when there is a pause, or follow actively?

00.20.28. Interviewee. No, I, I'm not thinking about how I can bid in with something. But I still kind of just notice a little bit...

00.20.44. Interviewer: What are you focusing on then?

00.20.48. Interviewee. I do not know, it may just be looking out the window, looking down at a, I don't know, a glass of water, or something.

00.20.57. Interviewer. Does that help?

00.21.02. Interviewee. Somehow, but it's not quite enough.

00.21.05. Interviewer. Mhm. How, well, even if it's not quite enough, how, how does it help then, or what is it that makes focusing on a window, look at a glass, or...

00.21.21. Interviewee. It just makes me a little calmer I think.

00.21.27. Interviewer. So it gives some kind of calm.

00.21.31. Interviewee. Yes, but then, they will be... The voices will still, will still seem very overwhelming until I try to be part of the conversation again.

00.21.45. Interviewer. So when you're part of the conversation, it doesn't seem overwhelming?

00.21.51. Interviewee. Not so much. No.

00.21.57. Interviewer. Why you think that might be?

00.22.01. Interviewee [griner].

00.22.04. Interviewer. I'm just curious [laughs].

00.22.12. Interviewee. You probably just don't notice it so much when you are involved. I don't know how to explain it.

00.22.23. Interviewer. I think you're right, I'm just trying to imagine what it's like. Uh. How about in that situation, if they ask you something, what happens then?

00.22.43. Interviewee. Then I would, if possible, I would come up with as short an answer as possible, or "no" to yes or no questions.

00.22.52. Interviewer. Yes Yes. Um.

00.22.58. Interviewee. Trying to avoid getting drawing attention to myself.

00.23.04. Interviewer. And how can it be that you want to avoid attention in that situation? What is it, how, what is this attention like, or how do you experience getting attention when you feel like this?

00.23.24. Interviewee. I just don't think I have the energy at that point, I do not know, to think about what I should answer. That they expect something from me. Then it's easier to just sit passively.

00.23.52. Interviewer. So there is something about when someone is expecting something from you. Uhm. In a situation where you just sit and focus on something and do not really follow the conversation, you still feel that someone has expectations of you.

00.24.19. Interviewee. Yes, that might be it.

00.24.31. Interviewer. I'm still trying to understand what it is, what is it that makes it stressful for you? And it's not because everyone is always an expert on themselves and knows what works in what way. But, uh, but I sense that it's hard for you to, like, describe what it is in that situation that stresses you.

00.25.10. Interviewee. Um, noise can make it stressful. That people speak loudly. When people disagree on something, even if it's mostly just for fun. But [pause] Yes, what can I [pause].

00.25.52. Interviewer. So... How, how do you feel such stress in the situation, how, how, how do you know in yourself that this is stressful for you?

00.26.07. Interviewee. Well, I, I don't know, get tense in the body. I don't... Or maybe a little [unclear], sit with the shoulders very high up, and maybe, pull myself in a little, try to move back a little, avoid contact with others. Fill as little space as possible.

00.26.38. Interviewer. Fill as little as possible...

00.26.44. Interviewee. Yes. [laughs]

00.26.48. Interviewer. What do you feel when you are stressed? [very, very long break]

00.27.47. Interviewee. I do not know, I get a little anxious, I... Yes. Am afraid of something.

00.28.02. Interviewer. Yes Yes.

00.28.04. Interviewee. I feel I do not fit. Feel wrong.

Appendix 4: Excerpts from field notes

16/1 2019 Youth group

Context

First time since Christmas break. Meeting with [REDACTED] before group night about the plan for conducting interviews from February to June. This is also the first group night without three of the girls, [REDACTED] who have left the youth group to start up a group exclusively for girls.

1.

Møde, [REDACTED] besked, ikke komme,

[REDACTED] og far komme rind, [REDACTED] bare sæt jer, [REDACTED] stiller sig midt i rummet, mellem sofa og køkken, arme ned langs siden, kigger rundt, nikker og vipper lidt, [REDACTED] fortæller om program, så skal jeg lige snakke med [REDACTED], så jeg smutter lige, faren går med.

Efter, [REDACTED], ikke problemer, ikke sætte sig ind og snakke med de andre.

As we approach the end of our meeting before group night, [REDACTED] phone buzzes. When she looks at the screen and briefly announces that the text is from [REDACTED], her eyes widen slightly and she raises her eyebrows in surprise. Apparently, the message says that [REDACTED] will be half an hour late tonight, but will only come in order to say goodbye to the group because he does not want to be a part of it anymore. [REDACTED] has no idea why that could be. [REDACTED] has seemed to do well in the group the past few times, she says.

After our meeting, we go the café area and join some of the people who have already arrived for the group. When everyone has arrived, [REDACTED] gathers the group's attention and starts to present the program for evening. It is approximately 5pm, which is when [REDACTED] had announced his arrival, and I look distractedly towards the main entrance, expecting [REDACTED] to arrive any second. After a while, [REDACTED] and his dad walks in, and [REDACTED] welcomes them and invites them to sit down. The father remains in the entrance hall between the door and the café area while [REDACTED] goes to the middle of the café area, between the sofas and the kitchen, and remains in a standing position. He is facing the sofa area where most of us sit, and he bounces slightly back and forth from his heels to his toes with his arms hanging straight down on either side of his torso. He nods his head as if to follow the rhythm of a piece of music while [REDACTED] finishes running through the program. When she has finished, she tells us that she needs to go talk with [REDACTED] for a moment and will be back in a short while. She gestures for [REDACTED] to follow her, which he does, and his father joins them on their way to the adjourning part of the building.

At the end of the evening after everyone has left, [REDACTED] tells [REDACTED] and I that the reason [REDACTED] wants to leave the group is because he does not feel that the issues addressed in the conversation groups are issues to him. He has no problems with reading social cues, participating in social situations, or understanding the perspectives of other people, he had explained to her. He feels that the problems the others in the group are facing are not problems to him. In other words, he does not need the group. In [REDACTED] opinion, what this really reflects is his lack of self-understanding.

2.

Ind fea møde, folk i sofaen, [REDACTED] på café ord, et tættere bog, mama tegneserie, lidt efter, [REDACTED], stopper op, kigget med i bog, kommentarer. Sætter sig ned, viser hinanden ting.

Tid til gennemgang - i to? Åh nej, så skal vi jo rejse os.

When [REDACTED] and I join the group at 4.30pm after our meeting, there is a few people already sitting in the sofas chatting. I notice [REDACTED] sitting at one of the small tables next to the kitchen and away from the sofa area. She is reading a manga, her black hair hiding her eyes. She does not look up as I pass by and briefly say “happy New Year’s” on my way to the coffee machine. After I return to the sofa with my coffee and take a seat next to [REDACTED] who is recounting to the others how much booze he had to drink at the New Year’s Eve party, I notice [REDACTED] walking in through the main entrance. As he walks past [REDACTED], he slows down his pace a little to catch a glimpse of what she is reading. He comes to a full stop and makes a few comments to [REDACTED], which I cannot hear. He sits down at the table besides her, and they start talking back and forth. Although I cannot hear what they are saying, they are both smiling, [REDACTED] a bit timidly as usual. [REDACTED] finds a small object from his backpack and shows it to [REDACTED]. She also shows him something on her phone, and he responds by showing her something on his phone as well. They seem deeply engaged in a topic, presumable related to Japanese culture. When it is time for [REDACTED] to present the program for the evening, she turns toward the two, who is sitting behind her) and invites them to join the circle around the sofa table. [REDACTED] lets out a big sigh and an exaggerated “aww” of frustration and objects in a half-joking tone. [REDACTED] lets them be and turns toward the rest of the group in the sofa area and proceeds with telling us about how the group night will proceed today. After [REDACTED] presentation, [REDACTED] joins [REDACTED] and [REDACTED] and the three of them are inseparable for the rest of the evening, moving swiftly and fluently through different conversation topics – everything from gaming, horrible TV series, and manga – accompanied by inside jokes and in a mix of Danish and English.

3.

Sidder ved bordet, sandwich, snakker om [REDACTED] e sport, hold med [REDACTED] lan, det sociale om spil, jeg spørger til autister og computerspil og nettet, [REDACTED] deltage og læse kommentarer uden at folk ved man er tilstede, anonym, usynlig, men stadig med.

We’re at the table dining table in the kitchen, and [REDACTED], [REDACTED] and I are talking with [REDACTED] about his interest in e-sport. [REDACTED] is on a team of three playing [REDACTED], and apparently, they are very good. Good enough to compete. When I ask him if it is purely a competitive activity for him, he explains that it is also highly social, and that he enjoys hanging out with the others. In his previous school, [REDACTED] and they used to arrange huge LAN parties where everyone would gather at the school to play all night. I bring up the subject of autism and gaming. I end up asking in a convoluted way why so many autistics are interested in gaming, computers, and the internet. [REDACTED] joins in and gives her opinion. For her, she says, the internet is a great way to interact with other people. She goes on to explain that you can participate in social communities in a different way than in real life. The real difference is, she emphasizes, that you can participate without being visible. For example, you can read through comment threads without anyone noticing you. In that way, you are present without being noticed.

4.

Kan du godt lide grøn? [REDACTED] ik den her t-shirt, for lille, selvom x large, [REDACTED] henvendt til mig autisme træk, lyd lys, følelser på hud, [REDACTED] stemmer i, værste kliché er at autister 7kke kan lide social kontakt, [REDACTED] nikker, jeg har også brug for berøring, værste er når folk er bange for at give hånden eller kramme fordi de tror man ikke kan lide det, så tør man 8lke bede om det, han samler hænderne og krammer dem, jeg har brug for at mærke et levende menneske så man også kan mærke at man selv lever. [REDACTED] sidder ved siden af og læser.

As we're chatting by the kitchen counter just before everyone is getting ready to leave, █████ asks █████ whether green is his favorite color. █████ looks down on his dark green t-shirt and bright green hoodie, and replies in the positive, but adds, *but now this t-shirt*. He holds it out a little from his body, tucks at its sleeves and feels the fabric, as if evaluating it. It's too small, he explains, even though it is an x-large. He seems to be hinting at █████. He goes on to explain that he absolutely hates t-shirts that are too small, especially when they are too tight in the area around the armpits. █████ turns to me, as if to let me in on the topic, and adds to █████ point that it is a very normal thing for autistics to be sensitive to fabrics. I nod, and she continues. Really, it could be anything, she explains – touch, sounds, lights, for example. █████ agrees, but adds that although it is true, there is a really horrible idea that no autistics like physical social contact. █████ nods in agreement, but remains quiet with her gaze resting at █████, as if inviting him to continue. █████ looks at me and states firmly, "I also need physical contact. The worst thing is when people are scared to shake your hand and give you a hug because they think you won't like it, and it is so hard to ask for it. █████ is gently rubbing his hands together, almost as if to illustrate. I need to feel another living person close to me – to feel that I am also alive."

02/12 2018 Youth group

1.

Møde med ██████, bord booket, forkerte, skal være afsides, psykisk handicap.

Meeting ██████ at 10.15 for a talk about my project and our collaboration at the café where we are to have brunch with the group later. When we arrive, we are led to a different table than the one ██████ had reserved for us. ██████ lets the waiter know that because we come from the ██████, we need a special table that is not placed in the middle of the café where there is a lot of noise and people coming through. It turns out that the table the waiter finds for us is okay as it is in a corner of the café – still, ██████ tells the waiter, autism means that there is a ‘psychological handicap’, and it is important that we get a suitable table.

2.

Buffet, meget larm og mennesker, ██████ får med ██████

Before the group arrived, ██████ told me that ██████ has agreed to come to brunch if ██████ would help her with the buffet. Usually at the group nights at the ██████, ██████ never eats with the rest of the group in the common kitchen, but sits in the creative room by herself during dinnertime. Obviously, this is not an option at ██████. At the café, I sit next to ██████ with ██████ and ██████ opposite of us. When it is time to go to the buffet, I get my plate and go with the first group. ██████ asks ██████ if she wants to go with me and get some food. ██████ says that she would rather wait a bit. When I come back with my plate full of scrambled eggs, pancakes, bread, and smoked salmon, ██████ gets up and goes to the buffet as well, and ██████ follows. They go around the big buffet table together.

3.

██████ social nihilisme, ikke følge regler, gøre det modsatte selvom man ikke er uenig

As we all sit and eat our eggs, bacon and pancakes, I hear ██████, who is sitting next to me, tell ██████ that sometimes he thinks that he is somewhat of a “social nihilist”. I didn’t hear what the conversation was about, but ██████ explains that sometimes he’ll just “not follow the rules” of social situations. If someone expects something of him, he’ll just want to do the opposite, even if he doesn’t actually disagree with what the person is saying.

4.

Musik i det ene øre, behøver kun en for at lukke støjen ude, så kan jeg fokusere på det hvis jeg har brug for det. Sort dims bag håret, har du musik i øret?

During lunch, I mostly talk with ██████, who sits directly opposite of me at the table. She asks me a lot of different questions. When we arrived, I said that it is a long time since I had seen her, and complimented her on her new haircut. She then asked me if I had gotten any new tattoos recently. Last time I saw her was around a month back, and at that group night she had taken my hands in hers and touched the tattoos on my lower arm and asked interested questions. As we’re plowing through our brunch plates, she asks me when I moved away from home. “When I was 16”, I answer her. She tells me that she will turn 16 later this month, but she doesn’t plan to move away from home until she is 20 or 21. As we discuss the pros and cons about moving out and living alone, I notice a small black in-ear headphone in her right ear, partially covered with

There is a thin black cord going from under her shirt up to the subtle device in her ear. I ask her if she is listening to music. She looks a bit uncomfortable and explains, lowering her voice a little: "I only need one headphone to keep the noise out. If I need it, I can focus on the music instead."

Appendix 5: Fernand Deligny, Lignes d'erre, 1976

Sofie Boldsen's doctoral dissertation presents a qualitative, phenomenological study of social experience and interaction among autistic adolescents and young adults aimed at exploring and describing the structures of autistic ways of experiencing and navigating the social world.

Theoretically, the dissertation is based on a phenomenological account of embodiment and intersubjectivity informed by Maurice Merleau-Ponty. Building on this theoretical framework, the dissertation investigates the relation between bodily, experiential, and social dimensions of autism through an empirical study based on fieldwork in two social groups for autistic adolescents and young adults and interviews with eleven group participants.

The findings of the study are presented in four articles that deal with the theoretical, methodological, and empirical dimensions of autistic intersubjectivity. The study suggests that autistic social experiences and practices reveal a form of intersubjectivity arising in response to profound experiences of detachment from the social world. This sense of detachment relates closely to the experience of being overwhelmed by the intensity of tactile, auditory, and visual features of social encounters. Autistic ways of navigating the social world can thus be described as strategies for managing the unpredictability and sensory chaos of social encounters. Furthermore, the study sheds light on the role of such strategies in providing alternative modes of bodily connectedness with others through shared material engagement. These findings draw attention to the experiential, bodily, and material features of social difficulties in autism and emphasize autistic intersubjectivity as a phenomenological structure that involves and draws on the surrounding world as an active resource.

Sofie Boldsen's dissertation illustrates how autistic modes of experiencing the world impact a distinctive way of relating to others in social encounters. Enabling a fuller understanding of social problems in autism, the dissertation presents a much-needed framework that sensitizes autism research to the lived experiences of autistic persons.