Losing Social Space: Phenomenological Disruptions of Spatiality and Embodiment in Moebius Syndrome and Schizophrenia

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Introduction

Social cognition and interpersonal relatedness are currently much-discussed topics in philosophy and cognitive science. Many of the debates focus on the causal mechanisms purportedly responsible for our ability to relate to and understand one another. When emotions and affectivity enter into these debates, they are generally portrayed as *targets* of social cognitive processes (i.e., as perceived in another person's facial expressions, gestures, utterances, behavioural patterns, etc.) that must be interpreted or 'decoded' by the mechanisms in question. However, the role that emotions and affectivity play in *facilitating* interpersonal relatedness has not received the same level of attention. Nor has much thought been given to the *spatiality* of our interpersonal relations—that is, the common space in which we come together and engage with one another as social agents.

In this chapter, we argue that understanding the experiential role of social space, as well as its relation to embodiment and affectivity, is crucial for understanding how the social world shows up as social in the first place—that is, as affording different forms of sharing, connection, and relatedness. We explore this idea by considering two cases where one's ability to skilfully inhabit social space has been compromised: Moebius syndrome (MS) and schizophrenia. Drawing upon phenomenological approaches to the body and spatiality, we argue that this altered sense of

social space emerges from subtle disruptions of embodiment characteristic of these conditions. These disruptions are instructive, we suggest, in that they highlight the foundational role that body and affect play in organizing social space—the lived context in which we first encounter one another as social agents.

PHENOMENOLOGICAL APPROACHES TO EMBODIMENT, Affectivity, and Space

The Space of Embodiment

Phenomenology is an investigation of subjectivity. It develops a careful analysis of the structures of experience—phenomenal consciousness from the first-person perspective—as well as how these structures are shaped by the dynamics of the subject's bodily engagement with the world and others. Importantly, phenomenology is not an approach based on introspection or inner mental states. Rather, with its emphasis on embodiment and agency, phenomenology focuses on various ways subjects inhabit and relate to their world. This embodied and situated approach moves phenomenologists to argue that considerations of embodiment from the first-person perspective must simultaneously be considerations of space namely, lived space. As Merleau-Ponty tells us, 'Insofar as I have a body and insofar as I act in the world through it, space and time are not for me a mere summation of juxtaposed points... I am not in space and in time, nor do I think space and time; rather, I am of space and of time; my body fits into them and embraces them' (2012, 141).

From a phenomenological perspective, lived space is distinct from objective or geometrical conceptions of space which see space as static (i.e., the 'container' in which objects and events are housed) and thus distinct from human contributions (Casey 1997). Lived space instead refers to egocentric space experienced from a body-centred frame of reference. It has several experiential dimensions, including (to use Merleau-Ponty's terminology) both the spatiality of position, that is, the immediate space of perception and action surrounding the subject's body, as well as the spatiality of situation, that is, 'the situation of the body confronted with its tasks' (Merleau-Ponty 2012, 103).

This latter form of lived space is more structurally complex than the former. It is established by the subject's responsiveness to environmental affordances—possibilities for action (Gibson 1979)—that become present in light of the habits, skills, expectations, goals, and affects a subject brings to a given situation. In other words, the 'spatiality of situation' refers to the meaning or significance a situation has for the subject when experienced as a unified whole. Crucially, however, these situational meanings need not be apprehended explicitly or propositionally. Instead, they are disclosed via a tacitly felt practical apprehension of affordances specified by the different ways subjects inhabit their environment: in a familiar versus unfamiliar manner, for instance, or when gripped by a certain affective state such as fatigue or elation, or when possessing (or lacking) a particular set of habits or skills. For example, when looking under the hood at a car engine, a skilled mechanic will immediately perceive meanings of that situation (e.g., signs of wear and tear, parts that can be tweaked and manipulated, etc.) that elude the novice's grasp. Similarly, a veteran airline pilot will feel at home in the cockpit in a way the non-pilot cannot.

For phenomenologists, lived space can be actively structured and organized by the subject's environmental manipulations. For example, when I walk into my office for the first time after starting a new job, I enter unfamiliar space. I experience the lived space of this new environment as diminished or somehow constricted. Since I am unfamiliar with the practical configuration of this space and its affordances, it lacks 'homeliness'. Of course, I immediately recognize that space as office space and know what I'm supposed to do with the things in it. But it's organized around tools and aesthetic qualities—a new desktop computer and keyboard different than what I'm used to; empty bookshelves, filing cabinets, and containers waiting to be filled; a stubborn window that needs finessing before it will open; pale grey walls or dim lights I find vaguely depressing—that are simultaneously both familiar and alien, in that I've not yet adapted to their idiosyncratic qualities.

After a few weeks, however, I organize this space according to my needs; I come to fully inhabit it by arranging it to my liking and putting my things in it. And I now feel this once-constricted space has expanded to afford a range of tacitly apprehended possibilities. I know how things work (e.g., the stubborn window, the keyboard with the sticky 'P'), and I know where to reach when I need something. To put the point another way: I've actively tailored this portion of my ecological niche (Willi 1999), and thus, my spatial experience of that niche as well as the bodily practices I enact within it are altered to reflect this new mode of skilful inhabitation. From a phenomenological perspective, lived space is in this way a dynamic, elastic dimension of experience connected with movement, action, and temporal development (Fuchs 2007, 426).

Important for our concerns is that lived space is also deeply imbued with *affectivity*, which we understand broadly to encompass moods, emotions, and other feeling states (Colombetti 2014). For phenomenologists, 'affectivity' does not refer to internal states hidden away inside brains and bodies (Colombetti and Krueger 2015; Krueger 2014). To the contrary, emotions and affects are robustly embodied, interactive, and world-directed processes that connect us to a shared world and guide our dealings with it.

This is evident, for instance, in how emotions saturate spaces and situations with value and significance. They disclose people and things as inviting, repulsive, scary, boring, enthralling, or welcoming; in this way they serve as the vehicle through which specific subsets of affordances stand out as experientially salient (or absent, as the case may be). This is affectivity's orienting or appraisal function (Colombetti 2014, 83-112). When I walk into a party full of strangers and they glance my way, I immediately feel the affective impact of their stiffened postures, quizzical looks, and the stark absence of social affordances. I feel increasingly awkward and self-conscious; I cannot comfortably settle into this shared space until someone smiles and introduces herself, or my host grabs my arm, makes a joke to diffuse my awkwardness, and playfully pulls me along to meet and mingle with her guests. Or, if I'm anticipating an important call at any moment, the mobile phone on my desk becomes unusually salient: I find it difficult to focus on my work as my eyes continually dart to the phone and I double check to make sure it's not muted, that it's sufficiently charged, has a strong signal, and so on.

Because emotions and affective states in this way involve both *appraisal* (i.e., bodily changes in response to situations) as well as *action tendencies* (Frijda 1987) (i.e., anticipations of how we will remake the situation, relative to our interests), phenomenologists insist that emotions are ongoing subject-world *transactions*. They are both in us *and* in the world, shaping the contours of lived space; it is through emotions that we continually remain in touch with our environment and respond to its possibilities (Johnson 2008, 66). Slaby and colleagues put the point well when they write:

It is adequate to understand emotions as a complex *sense of possibility*: emotions disclose what a situation affords in terms of potential doings, and the

specific efforts required in these doings, and potential happenings affecting me that I have to put up with or otherwise respond to adequately. These two aspects—situational (what is afforded by the environment) and agentive (what I can or cannot do)—are intimately linked to form a process of dynamic situation-access: an active, operative orientation towards the world. (Slaby et al. 2013, 42)

The critical role affect plays in framing experiences of the world and of lived space receives multiple lines of empirical support. For example, several studies indicate that subjects estimate the grade of an incline to be steeper when wearing a heavy backpack as opposed to not wearing one, or when they feel fatigued as opposed to feeling refreshed (Proffitt et al. 1995, 2001). Even the presence of a supportive friend—actually present or merely imagined—leads subjects to perceive the incline as less steep than when they are alone (Schnall et al. 2008). The psychosocial affective support we receive from others modulates how we perceive the world and its affordances. And a similar dynamic appears to be at work in the social world. There is evidence from cognitive neuroscience, for instance, that shared affect is a crucial component of empathy; it allows individuals to pick up on the ways another person is responsive to environmental affordances, and in so doing share and understand their perspective on the world (Kiverstein 2015). Without this orienting function of shared affect, however—such as in Autistic Spectrum Disorder (ASD)—individuals struggle to get grip on what others find important in a given situation and have difficulty relating to them. This absence of affective framing is one of the reasons people with ASD struggle to comfortably inhabit the shared spaces of the social world.

Dimensions of Embodiment

With their emphasis on the spatiality of embodiment and affectivity, phenomenologists also argue for the need to investigate how various dimensions of embodiment determine the way subjects inhabit and organize lived space. Just as space can be experienced (and conceptualized) in both objective and subjective terms, so, too, can the body. Clarifying the interplay between the objective and subjective dimensions of embodiment—as well as how this interplay relates to the negotiation of lived space—will help us better understand the spatial disruptions characteristic of MS and schizophrenia.

Phenomenologists famously distinguish two dimensions of embodiment (e.g., Husserl 2001; Merleau-Ponty 2012). On one hand, we can consider the body from an internal perspective, that is, the body-as-subject (Leib). On the other hand, we can also consider the body from the perspective of an external observer, that is, the body-as-object (Körper). The interplay of these two dimensions of embodiment constitutes our sense of self and worldly relatedness.

To begin with the body-as-object, my body clearly has a material dimension. It is a physical object in the world and shares properties with other physical objects: it is a certain size, colour, and shape, for instance, and it takes up geometrical space like other objects. Moreover, as a physical object, it causally interacts with other objects in the world. And although I live in and through my body from the first-person perspective, I can nevertheless relate to it as an object; I can adopt a third-person perspective on my body and consider it from the outside while looking in the mirror and thinking that I really need to spend more time in the gym, scrutinizing an injury or strange rash, or experiencing stage fright while lecturing and suddenly becoming hyper-aware of how I look to my students. I can also acquire conceptual understanding of my body via scientific or medical knowledge, for instance, or adopt an emotional attitude towards my body if I'm pleased with my new haircut, say, or self-conscious of a blemish (Gallagher 2005, 25). In these cases, I reflexively objectify my own body; it becomes a thematic content of my perception in a way that isn't normally the case as I move and act in the world.

For phenomenologists, the body-as-subject is meant to characterize the first-person intimacy we have with our own body from the inside, the body as experientially inhabited. From this perspective, the body is manifest not as an object or content of my perception, belief, or attitude, but rather, as the transparent vehicle through which I act on the world. The body-as-subject—at least when functioning optimally—operates as a prereflective structure that organizes experience. This simply means that the body is implicitly present as we perceive the world and act on it, dynamically shaping in subtle ways both what we experience and how we experience it. As Sartre puts the idea, 'the body is present in every action though invisible...The body is lived and not known (Sartre 1956, 427).

Consider reaching for a cup. When we reach for a cup, we don't first have to locate different parts of our body and then reflectively think about the various movements and postural adjustments needed to carry out our intention in action. We simply reach for the cup spontaneously, without thinking. And we can do this because of the background work of the body-as-subject. Due to ongoing information from proprioceptive and kinaesthetic processes (along with tactile and visual information), we have an immediate sense of where our limbs are in space and what sort of actions are possible within that space without having to monitor our body or actions. Moreover, we experience the cup not merely as a value-neutral object with a number of different properties (colour, shape, texture, etc.) but rather as meaningful: as a purpose-built artefact affording a range of different interactions (grasping, picking up, throwing, etc.) determined by the structure of the cup, the context in which we encounter it, and by our experience of bodily subjectivity.

The important point is that the first-person intimacy we enjoy with our body-as-subject functions as a constraint on our experience of self, space, and world. As Merleau-Ponty puts it, the body-as-subject 'projects' a certain "milieu" round itself, insofar as its "parts" know each other dynamically and its receptors are arranged in such a way as to make the perception of the object possible though their synergy' (Merleau-Ponty 2012, 241).

Breakdowns in Embodiment, Affectivity, and Social SPACE: MOEBIUS SYNDROME AND SCHIZOPHRENIA AS CASE STUDIES

With these phenomenological concepts in place, we now consider breakdowns in embodiment, affectivity, and social space in MS and schizophrenia. We're particularly interested in how breakdowns of the former (embodiment and affectivity) modulate disruptions of the latter (social space). We argue that paying careful attention to the experiential character of these disruptions highlights the central role that body and affect plays in determining how we inhabit and negotiate the shared spaces of the social world.

Phenomenological Disruptions in Moebius Syndrome

MS is a rare form of congenital oculofacial paralysis, typically complete and bilateral, resulting from maldevelopment of the sixth and seventh cranial nerves. MS affects approximately 0.0002 %-0.002 % of births (Kuklík 2000). Along with oculofacial paralysis, individuals with MS also exhibit other abnormalities: abnormal tongue, hypodontia (i.e., missing teeth due to developmental failure), difficulty sucking and eating, limb defects (such as club foot or syndactyly), and general problems with motor skills, coordination, and balance (Miller and Strömland 1999). In addition to these physical abnormalities, however, there also appear to be subtle *phenomenological* alterations of embodiment and affectivity that resist an exclusively neurophysiological characterization, and which impact the ability of people with MS to inhabit and negotiate social space (Krueger and Henriksen 2016).

We can begin by noting that people with MS often report feeling they don't wholly coincide with or feel at home in their body. This attenuated sense of bodily subjectivity—accompanied by a diminishment or flattening of affect—means that the body is primarily experienced in a markedly impersonal *object*-like way.

For example, James reports: 'I have a notion which has stayed with me over much of my life—that it is possible to live in your head; entirely in your head (...) I think there's a lot of dissociation. But I think I get trapped in my mind or my head' (Cole and Spalding 2009, 68, 72). Celia describes an even more articulated sense of disembodiment which she claims shaped her sense of self from an early age:

I never thought I was a person; I used to think I was a collection of bits. I thought I had all these different doctors looking after all the different bits... 'Celia' was not there; that was a name people called the collection of bits... Even though I was a collection of bits I always knew there was something strong inside that I had a mental dialogue with, but it was not the physical body; it was very separate from the physical. (Cole and Spalding 2009, 42)

People with MS often report that the diminished affectivity they feel is coextensive with their diminished embodiment. To be clear about this point: it's not that people with MS lack emotions and feelings entirely. Their reports suggest not an absence of emotion but rather a restricted range of emotional sensitivity, responsivity, and expressivity impacting both their self-experience and social engagements (Krueger and Michael 2012). For instance, James tells us that, 'I sort of think happy or think sad, not really saying or recognizing actually feeling happy or feeling sad'; 'I've often thought of myself as a spectator [of his emotions] rather than a participant' (Cole and Spalding 2009, 72). Similarly, Celia claims, 'I did not express emotion. I am not sure I felt emotion, as a defined concept.

At my birthday parties I did not get excited. There were people around excited, but I followed what they did' (Cole 1999, 244). Another woman, Eleanor, writes:

[I]f I go back to my late teen years, I was not very embodied as a person and the physical nature of attraction was some way away...At this state, I did not feel anything [romantic] physically; even though I had matured physically, I had no feeling. Like the other feelings it had not kicked in. (Cole and Spalding 2009, 169–170)

What is relevant for our considerations is that these subtle disruptions of embodiment and affectivity appear to significantly alter how the spaces of the social world show up for the person with MS. Many of their reports suggest that this diminished embodiment and affective flattening constricts their apprehension of social space. The social world, if not closed off entirely, is something experienced as alien and largely impenetrable.

Part of this has to do with the fact that, in virtue of their facial paralysis and other motor difficulties, people with MS have not developed the repertoire of bodily habits specific to the social world that the rest of us have. So, instead of smoothly interacting with others—spontaneously coordinating gestures, postures, vocalizations, and so on—people with MS assume a hyper-reflexive, excessively objective stance towards their body that disrupts the normally transparent interactional dynamics the rest of us take for granted (Chartrand and Bargh 1999). This is a consequence of their diminished embodiment and affectivity (i.e., disruptions of the body-as-subject).

For instance, Lydia reports that she feels detached from her bodily subjectivity and is unable to settle into and inhabit social space; that is, she cannot participate in the back-and forth interplay of social interaction without constantly reflecting on her gestures, postures, and other movements: 'Instead of facial expression I use my hands and shoulders, and my voice, both in its tone and what I say; I construct it all very carefully... I have to monitor these things all the time...None of this is automatic' (Cole and Spalding 2009, 152). Celia describes a similar experience:

All my gestures are voluntary, even now aged 46. Everything I do, I think about...All the things I am doing, whether turning my head or moving my hands, is self-taught. I learnt from observation...When I was a child, I could not gesture, because I was a collection of bits. My body was not me, so

expression in it, with it, would not be from me, either. It was not a joined-up feeling. There was a huge bit missing: with the lack of balance, mobility, and problems with coordination, you don't get a sense of self. (Cole and Spalding 2009, 190)

As a consequence, Celia tells us that, as a child, she was unable to enter into the fluid social spaces of collective *play* that are such an important part of childhood development. Due to her excessively objective orientation towards her body (i.e., experienced as a collection of relatively disconnected 'bits'), she felt 'cut off from immersion in action in the body and so cut off from much of what it is to be a child', as Jonathan Cole tells us; Celia eventually came to grasp 'the gap between herself, and her collection of body parts, and her peers' (Cole and Spalding 2009, 56). Others report this experience of constricted social space continuing into adulthood. Lydia, for instance, reports the following experience:

I remember a frightening, startling moment when, at a disco, I saw a girl-friend exploring her sexuality and flirting. That was so utterly alien to me...I could not find its meaning. I could not work out what it was about. It had no relevance to me. My friend was fluttering her eyelids and was enjoying herself and you could see the boy and girl doing it. I could not work out why. (Cole and Spalding 2009, 168)

In sum, what these narratives appear to suggest is that individuals with MS often experience a diminished sense of embodiment and affectivity that goes beyond a mere description of their specific physiological or facial abnormalities. Their lack of bodily self-intimacy flows from a more general overall feeling of being *disconnected*, both from themselves (i.e., as bodily subjects) and others. And this latter sense of disconnectedness is apparent in the way that social space is often experienced as constricted or impenetrable, as lacking meaning and failing to offer up interactive affordances. In some people with MS, disruptions of embodiment and affectivity thus appear to modulate the apprehension of social space. As we'll now see, similar disruptions are also found in schizophrenic experience.

Phenomenological Disruptions in Schizophrenia

Schizophrenia is a psychiatric illness which involves disintegration of coherent thought and affectivity. Symptoms are divided into two main groups:

positive and negative symptoms (American Psychiatric Association 1994 (henceforth DSM-IV), 299). Positive symptoms include hallucinations, delusions, loss of contact with reality, and grossly disordered thought and behaviour. Negative symptoms, usually occurring in the onset of schizophrenia, involve a diminishment or loss of something normally present in healthy individuals. Examples include flattened or diminished affect, lack of motivation, alogia, anhedonia, neglect of routine self-care, poor memory and concentration, difficulty in completing tasks, and social isolation. The negative symptoms of schizophrenia adversely impact the quality and structuring of everyday life. In what follows, we focus on how interpersonal relations—and the apprehension of social space more generally—are affected in schizophrenia.

Through schizophrenia, an intuitive and taken-for-granted capacity to understand and engage with others is lessened and in some cases lost (Sass 1992a, 23; Stanghellini 2004). Instead, the experience of others is marked by feelings of distance and alienation, emerging from difficulties in affectively 'mak[ing] contact' with others, as one person puts it (Sechehaye 1970, 46, 54, 55). Changes to intersubjectivity occur alongside and are exacerbated by disruptions of embodiment and affectivity (Krueger and Henriksen 2016).

As with MS, individuals with schizophrenia spectrum disorders often report problems with their embodiment. Many of these reports indicate a diminishment or loss of bodily self-intimacy, which is often a consequence of depersonalization. Instead of living transparently through their body as a unified centre of agency and experience—that is, the body-as-subject they describe feeling disconnected or alienated from their bodies.

For example, 'K', a 25-year-old patient, says:

I have always had a difficult relation to my body (...) It's as if there is a distance between my body and my mind. It's like my mind is a little puppeteer, sitting far away, controlling my body. It's not like I see myself from above or something. But it's like I'm not in my body or not attached to it. It's like my body is an appendix that hangs below me. My body feels alien to me (...) I wish I could be free of it. (Henriksen and Nordgaard 2015)

'K' is not reporting an out-of-body experience but rather a persistent sense of not feeling perpetually at home in, or present to, her body. Her experience of bodily subjectivity is attenuated or somehow diminished.

These reports are common, although the nature of this diminished embodiment, as well as its qualitative intensity, can vary. For example: 'the body feels awkward as if it does not really fit' (Henriksen and Nordgaard 2014: 435–441), or 'I feel strange, I am no longer in my body, it is someone else; I sense my body but it is far away, some other place. Here are my legs, my hands, I can also feel my head, but cannot find it again' (Parnas 2003, 227).

As with MS, this diminished embodiment can also lead some people with schizophrenia to experience their bodies in excessively *objective* terms. The body-as-subject is no longer felt to move and act as a spontaneous fluidly integrated unity; rather, its movement and overall functioning takes on an alien or quasi-mechanical character: 'I'm blessed with a bladder-emptier that I can turn on and off, and an anal expeller' (Angyal 1936); 'I walk like a machine; it seems to me that it is not me who is walking, talking, or writing with this pencil. When I am walking, I look at my legs which are moving forward; I fear to fall by not moving them correctly' (Parnas 2003, 227).

In addition to disruptions of embodiment, schizophrenia also involves changes in affect (DSM-IV, 301; Parnas and Sass 2001; Sass 1992a, 2004; Stanghellini 2008). Flattening of affect and affective expression are key symptoms of schizophrenia, affecting both a capacity to feel emotion, and an ability to recognize the affectivity of others (DSM-IV, 30). Affective flattening is often linked to the experience of derealization. Whilst depersonalization involves a feeling of distance and unreality in self-experience (including bodily experience), derealization involves changes to the way in which the world and surroundings are apprehended. Instead of being homely, taken for granted, and inviting, the world appears unfamiliar and distant. People commonly report that the world feels 'unreal' (i.e., dreamlike, stage-like). At the same time, people are also encountered as 'unfamiliar' and 'mechanical' (DSM-IV, 822; Hunter et al. 2004, 9) These affective alterations have profound consequences for intersubjectivity and for self. When felt connectedness to the world and an emotional resonance to others are lost, the way in which everyday life is structured and lived is radically different, as we shall now explore.

Losing Social Space

Given these disruptions of embodiment and affectivity, it's unsurprising that people with schizophrenia often report a severance in feeling connected to

others. It's important to note that with a loss of connectedness, we not only lose the capacity to feel related to others, but also to feel connected to a shared world—a common social space—within which meaning is made. Stanghellini and Ballerini describe this breakdown as a 'loss of primordial intersubjectivity' (2007, 140): an intuitive grasp of others as people who engage in meaningful activities, in meaningful situations, and who offer up interactive possibilities for us.

It is interesting to examine how these changes to intersubjectivity occur alongside an experiential fragmentation of lived social space. This fragmentation precludes experiencing oneself, others, and objects as contextualized within interpersonal space. In particular, a sense of space as shared, social, or even as 'relevant to me' is undone. Instead, space appears as geometricized and thus loses its quality of familiarity, that is, as space to be inhabited and settled into.

One person remarks: 'madness was definitely not a condition of illness; I did not believe that I was ill. It was rather a country, opposed to Reality [sic], where reigned an implacable light, blinding, leaving no place for shadow; an immense space without boundary, limitless, flat' (Sechehaye 1970, 44). Here, the experience of illness involves inherent changes to spatiality; note the parallel between the way in which space is described and the symptoms which mark depersonalization and derealization. Space is 'flat', 'limitless', and without nuance. Rather than operating as a contextualizing background for interaction, it instead appears as a neutral container for people, landscapes, objects, and self, which likewise are presented as divested of social affordances.

Returning to the previous report, the person continues:

In this stretching emptiness, all is unchangeable, immobile, congealed, crystallised. Objects are stage trappings, placed here and there, geometric cubes without meaning. People turn weirdly about, they make gestures, movements without sense; they are phantoms whirling on an infinite plain, crushed by the pitiless electric light. And I—I am lost in it, isolated, cold, stripped, purposeless under the light. (Sechehaye 1970, 44–45)

We see here how depersonalization and derealization combine to present a world which is experienced as odd, lacking vitality and 'homeliness', and is one in which the person feels fundamentally isolated. There is a sense in which there is a spatial 'immobility' marked by a lack of openness or interactive possibilities.

'Immobility' and lack of possibility and change are features mirrored within interpersonal interaction in schizophrenia. In interactive situations, there is pronounced lessening of the dynamism and spontaneous fluidity of interaction. This is, in part, an effect of a growing immobility in bodily expressivity and disruptions of bodily subjectivity. We see in the quotation above that others' gestures are perceived oddly, as having no intuitive sense and thus as affording no immediate response. Recent work in social cognition stresses the transformative role which gestural attunement, appropriate mirroring and synchronization of bodily expressivity of others, plays in providing dynamism to interaction (Boker and Rotondo 2002; Rotondo and Boker 2002; Goldin-Meadow 1999). In the quote above, the person above loses a pre-reflective awareness of gestures as accompanying and substantively adding to communication.

The *production* of gestures in schizophrenia also often loses its fluidity and inherent meaning. There is an objective *spatialization* of movement instead of the production of a smooth, coherent whole; the schizophrenic person perceives gesturing not as part of a communicative *gestalt* but as individualized movements (reminiscent of Celia's experience of her body as a disconnected 'collection of bits'). They may experience difficulty in pre-reflective action and movement as their gaze turns inward upon themselves in an excessively self-objectifying way (Stanghellini 2007, 130). Fuchs refers to this as a 'disembodiment of the self'—a hyper-reflective stance in which one adopts an external perspective on one's body instead of living transparently through the body-as-subject's implicit habits and automatic performances onto the world (Fuchs 2005a, 101; see also Sass 2004; Stanghellini 2007, 2008, 312, 2009).

The effect of this disruption is that gesturing is hampered or, in severe cases, even ceases altogether (i.e., in catatonic forms of schizophrenia). The disruption of these interactional dynamics has a profound effect on interaction and feelings of relatedness, which are established and sustained by patterns of intercorporeality and the mutual negotiation of shared space. As participation in patterns of embodied interaction diminishes and loses its fluency, persons with schizophrenia must increasingly rely on more 'deliberative and ideational' (Sass 1992a, 23) methods to understand others. Stanghellini labels this 'the attunement crisis' (2004, 22):

What's missing is the ability to attune with the current situation, to intuitively get a grasp on the thinking of the person you are talking to, and above

all their emotional plane, and to match it. Obviously, we only realise the existence of this emotional medium when it's no longer there. (Stanghellini 2004, 6)

Instead of approaching others and one's lived environment in a prereflective second-person and interactional manner, persons with schizophrenia 'contemplate [their] own existence from outside—a third person perspective view, or a view from nowhere' (2004, 22). The person with schizophrenia stands outside interpersonal space and perception of space as 'lived'. In this way, the scaffolding of interaction, usually provided through a shared intersubjective space, is unavailable and must be reached through other means (e.g., algorithms, tactics). This coincides with feelings of distance, alienation, and in the cases above, a sense of desolation. Space becomes stretching, flat, limitless, and infinite in nature and there is an overriding sense of precision in the way the space appears as painfully light, smooth, and empty. Again, this experience appears to be common in schizophrenia. Another patient remarks: 'I still saw the room. Space seemed to stretch and go on into infinity, completely empty. I felt lost, abandoned to the infinities of space, which in spite of my insignificance somehow threatened me' (Jaspers 1997 [1959], 81).

With the loss of an apprehension of space as affording smooth interactions with others, there is also a loss of the proper place which things occupy in relation to myself, my expectations, and my projects. Sass has already comprehensively described the process of 'unworlding' in schizophrenia (1992a, 32-33) in which objects no longer offer affordances for personal use or meaning. However, in considering spatiality, we can go one step further to claim that lived space itself—and not only the things in it also undergoes an 'unworlding'. That is, space and the things and people within it, lose social referentiality and coherence.

In this way, lived space loses its characteristic 'homeliness' and becomes infinite and detached from human activity and life. The dissociation of space from lived space causes a retreat from the world or environment being a meaningful context for action and interaction. Without being able to recognize and respond to the social, normative, and affective aspects which are inextricably bound with a sense of space as social, schizophrenic persons lose a frame of social reference which ordinarily feeds into our interactions with others, forming some of the presuppositions which we bring to our interpersonal exchanges.

Conclusion

We have examined various ways in which experiential dimensions of embodiment, affectivity, and lived space relate to reveal the world as social. Examining the disruptions which occur to these elements in MS and schizophrenia highlights the crucial structural role they play in orienting people in a world which shows up—first and foremost—as social, and also in shaping ongoing patterns of interpersonal interaction. We found similarities in changes to embodiment and spatiality in MS and schizophrenia, in which experience of the body and lived space are marked by hyper-objectivity and a loss of self-intimacy. We argued that these alterations negatively impact taken-for-granted and easeful understandings through which situations, spaces, and interactions are encountered as socially meaningful.

To be clear, there are also important differences in the experiential disruptions characteristic of these conditions, too; we are not suggesting that the underlying structural disruptions are identical in both cases. However, taken together, they appear to reinforce phenomenological arguments for the foundational role that body and affect play in organizing social space. Moreover, this analysis marks out considerations of spatiality and embodiment as important candidates for further attention in ongoing work on social cognition and interpersonal understanding.

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