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# Affordances and spatial agency in psychopathology

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## ABSTRACT

Affordances are action-possibilities, ways of relating to and acting on things in our world. They help us understand how these things mean what they do and how we have bodily access to our world more generally. But what happens when this access is ruptured or impeded? I consider this question in the context of psychopathology and reports that describe this experience. I argue that thinking about the bodily consequences of losing access to everyday affordances can help us better understand these reports. An affordance-based approach to psychopathology can illuminate some of the causes, as well as the experiential character and consequences, of affective disorders and diminished spatial agency in self-world disturbances. It also highlights some under-explored ethical and political dimensions of these issues that need further attention.

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## 1. Introduction

An increasing amount of work in philosophy of psychiatry and phenomenological psychopathology adopts an affordance-based approach.<sup>1</sup> This work uses the concept of an “affordance” to understand the disruptive character of anomalous experiences in, for example, schizophrenia, depression, obsessive compulsive disorder, and autism (e.g., Constant et al., 2020, de Haan et al., 2013; de Haan, 2020; Dings, 2020; Kim & Effken, 2022; Krueger, 2020; Krueger & Colombetti, 2018; Maiese, 2021; Nielsen, 2022). But some are skeptical. Matthew Ratcliffe and Matthew Broome (Ratcliffe & Broome, 2022) offer a helpful representative critique. Their worry is that the concept is “insufficiently discerning” when it comes to specifying *what* exactly has changed, phenomenologically speaking, in these anomalous experiences, and *how* these changes impact an individual’s general sense of being in the world. An affordance-based approach may serve as a useful starting point. But they conclude that instead of talking about affordances, we should instead focus on the many subtle ways that

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human experience is permeated by “a sense of the possible”, as they put it, and how this sense is disturbed in psychopathology. The concept of an “affordance” is too coarse-grained to be illuminating here.

All concepts have their limits, of course. This is particularly true when it comes to describing unusual experiences in psychopathology. Moreover, Ratcliffe and Broome are right to caution us about attempts to reduce phenomenologically complex experiences to descriptive categories ill-suited to fit them. Nevertheless, I remain optimistic about the potential of affordance talk to help us better understand these anomalous experiences – and perhaps even assist with assessment, diagnosis, and treatment strategies.

In what follows, I address Ratcliffe and Broome’s worry by putting affordances to work in the context of psychopathology. However, my intention is not to respond directly to their helpful critique – Roy Dings (2020, 2021) has done so previously and, in my view, persuasively – so much as it is highlighting some ways affordances enrich our understanding of the character of various self-world disruptions, both in psychopathology and beyond. I argue that focusing on affordances can illuminate disruptions of our “spatial agency”: our ability to smoothly inhabit, negotiate, and use the different spaces we move through in everyday life.<sup>2</sup> As we’ll see, our spatial agency is tied to our feeling of at-homeness in the world (Seamon, 2002). And when the former is disrupted, this has significant consequences for the latter.

More precisely, I argue that affordances can help clarify the *causes*, *character*, and *consequences* of these disruptions in a way more general talk of “a sense of the possible” cannot. Additionally, by bringing the world into the story in a deep way, affordances can help illuminate the ongoing role the *built environment* plays in shaping and sustaining our spatial agency – or, conversely, weakening and disturbing it. This is not to say that talk of “a sense of the possible” cannot contribute to this analysis. As both Ratcliffe’s and Broome’s important work demonstrates, it can, and in a variety of useful ways. However, contrary to their worry, a focus on affordances, I suggest, allows for a more fine-grained analysis of the different forces and factors – including often-overlooked *political factors* — that shape an individual’s disrupted spatial agency than is possible by speaking more generally at the level of possibility. So, rather than replace one approach with the other, these two perspectives might instead be productively brought together to capture different levels of description and analysis.

## 2. Affordances and the bodies that perceive them

I begin with some background. Simply put, affordances are action-possibilities, ways of relating to and acting on our world and things in it.

From the moment we wake up in the morning, we're constantly doing things. We open our eyes and reach for our phone to check our e-mail or scroll through social media. Eventually, we get up, make coffee, shower, get dressed, walk the dog, talk to people, take the subway, do our work, exercise, eat lunch, play games, go shopping, meditate, worship, drink at the pub, and find ways to relax. As we do these things, we continually rely on the resources and interactive possibilities that things, spaces, and other people furnish. To move through the world is to move through a rich landscape of affordances (Rietveld & Kiverstein, 2014).

Within the literature, there are ongoing debates about the ontological status of affordances. For some, they are properties of the animals who perceive them, and thus subjective and variable; for others, they are properties of the environment, and thus objective and constant. This debate need not concern us here (see, e.g., Chemero, 2003, 2009; Heft, 2001; Heras-Escribano, 2019; Scarantino, 2003). For my purposes, affordances lie somewhere in-between: they are *relational*. Although he's not always consistent in his formulations, Gibson seems to mean something like this when he writes:

An important fact about the affordances of the environment is that they are in a sense objective, real, and physical, unlike values and meanings, which are often supposed to be subjective, phenomenal and mental. But, actually, an affordance is neither an objective property nor a subjective property; or it is both if you like. An affordance cuts across the dichotomy of subjective-objective and helps us to understand its inadequacy. (Gibson, 2014, p. 121)

Accordingly, affordances are not just out there in the world as qualities or features of the things and spaces around us. Crucially, they are relative to the bodies who experience them. They are *response-dependent* (Scarantino, 2003), insofar as different bodies with distinct structures, skills, habits, and histories perceive different sets of affordances. Different bodies may share a common world but still inhabit different "niches": affordance spaces that determine what we can do and how we might do it within a given environment (Gibson, 2014, pp. 120–121). For an adult human, a chair affords sitting, standing on, or picking up. For infants, cats, lizards, and ladybugs, it affords none of these things – but it does afford crawling on or hiding under. In this way, Gibson tells us, "a niche implies a kind of animal, and the animal implies a kind of niche" (*ibid.*, p.120).

Importantly for our purposes, this relational perspective is sensitive to how affordances change as bodies do. Our bodies, including the skills and capacities that allow us to do things in and to the world, continually change due to age, illness, experience, intentions, interests, and many other factors. So, the same body may, at different times, perceive the same environment as furnishing a different landscape of affordances. When I am healthy and

well-rested, for example, the steep hill on the way to work affords a welcome early-morning challenge as I walk to my office. When I am tired or unwell, however – or develop mobility issues and rely on a wheelchair, or a respiratory condition leaving me perpetually short of breath – it becomes a nearly-insurmountable impediment (Carel, 2013).<sup>3</sup>

To be clear, this example is an oversimplification. First, we rarely perceive affordances in this kind of static and isolated way (i.e., the hill on its own as climbable). Instead, we perceive affordances as dynamic, and nested within complex, continually changing environments rife with *other* affordances. Additionally, as I discuss later, everyday sensitivity to affordances is a phenomenologically rich affair. There are complex sociocultural, political, normative, and affective factors (among other things) that determine how particular affordances become experientially salient to bodies that respond to them. Although Gibson's ecological optics was primarily concerned with the visual detection of affordances via changes in the "ambient optic array", as he termed it – the structured arrangement of light that changes relative to the movements of a perceiver – sensitivity to affordances is not just a matter of simple *seeing*. Other factors come into play. And *these* factors establish constraints on how we detect and respond to affordances.

For example, an alley in our city neighborhood may afford walking through as a shortcut to the market. But if we know it's the site of several recent muggings, we will instead perceive it as a space to be avoided. In this case, the affective character of how we experience this bit of our local ecology is shaped by our familiarity with urban settings and a relevant bit of local background knowledge. Similarly, young Black men, older White women, and homeless people may inhabit the same space but perceive different sets of affordances due to sociocultural and normative factors impacting different kinds of bodies in different ways as they negotiate these spaces (Brancazio, 2020).

We'll return to some of these themes later. For now, the key point is simply that affordances emerge *relationally*, in the way different bodies – with their unique structures, skills, habits, and histories – relate to the world. They determine how bodies fit into their environments.

de Haan et al. (2013, p. 7) help clarify how this "fitting in" occurs (see also Rietveld, 2008). They argue that an affordance space (or "field") has three dimensions: *width*, *depth*, and *height*. "Width" refers to the *scope* of affordances one perceives, the array of action choices or options available at a given moment. "Depth" refers to the *temporal aspect* of perceiving affordances, an awareness of how certain affordances may be available in the future beyond the here-and-now. Finally, "height" picks out the *relevance or importance* of affordances one is responsive to, that is, which affordances solicit attention and engagement given the "width" of affordances available to us as we find our way through the world. This

last dimension is related to motivation. It's important because although we perceive many affordances throughout the day, we don't act on all (or even most) of them.

For instance, I can perceive a chair *as sittable* without being moved to sit on it. However, sometimes “intrinsic to the experience of an affordance is that stimuli incite or summon certain actions” (Ridderinkhof et al., 2011, p. 180). If I am tired or plan to sit and work, my office chair might be perceived not as sittable but as *to be sat upon*. As I'll consider in more detail later, some affordances solicit our attention and engagement because they have an “affective allure” (Rietveld, 2008) relative to our current interests and intentions. There is ongoing debate about how best to unpack the character of this allure or “soliciting” character.<sup>4</sup> What matters here is that this dimension highlights an important *affective* dimension to our experience of affordances. Moreover, as we'll see later, all three of these dimensions can become disrupted within psychopathological experiences – with significant affective consequences.

In this way, affordances can help us understand how the same environment can mean different things to different animals. It can encompass different niches. A key idea in what follows is that Gibson's theory of affordances might therefore be thought of as a theory of *access*. It helps us understand how we have bodily access to bits of the world and how we are affectively *drawn* to these bits, what it means to enjoy (or, as we'll see, be deprived of) such access – i.e., what it means to fit (or not fit) into our world.<sup>5</sup>

## 2.1 Absent affordances and the bodies that lose them

Gibson seems to presuppose that similar animals enjoy roughly the same degree of access to the world. But this is problematic. A question he doesn't explicitly consider is, what happens to bodies when this access is somehow *ruptured* or *impeded*? This question potentially introduces an important *political* dimension to discussions of affordances that, with a few notable exceptions, has not been sufficiently investigated (e.g., Brancazio, 2020; Crippen & Klement, 2020; Dokumaci, 2023; McClelland & Sliwa, 2022). Sometimes, bodies lose access to affordances because they get tired, injured, sick, or old. However, sometimes this loss of access – an experiential absence or “shrinkage” (Dokumaci, 2023) – arises due to other environmental factors, including socioeconomic factors or those related to power, privilege, and standing. Again, a relational perspective on affordances emphasizes that how we meet the world and its affordances depends upon both bodies *and* worlds. And clearly the world is set up to accommodate the needs, values, and capacities of some bodies more than others.

For example, Arseli Dokumaci reminds us that

chronically ill, “oddly” formed, and debilitated bodies carve out niches for themselves – though the material world bears no record of their plans and vulnerabilities, remains impervious to the diseases they live with, and offers no gestures of recognition for the unusual shapes, scales, and abilities that their bodies and minds come with (Dokumaci, 2023, p. 11)

So, how certain bodies are constituted *as the kinds of bodies they are* (e.g., disabled or “crip” bodies, queer bodies, racialized bodies, bodies with chronic pain or compromised immune systems) will reflect, among other things, the various ways these bodies strategically negotiate and work around these felt absences and lack of access (Ahmed, 2006; Dokumaci, 2017; Garland-Thomson, 2011; Hendren, 2020; Kukla, 2022; Schwab et al., 2022). They are constituted *in action*, by these “tiny, everyday artful battles” to create more livable niches for themselves – often in affordance spaces that are indifferent or hostile to their needs (Dokumaci, 2023, p. 14).

As we’ll see, this issue is relevant to psychopathology. Autistic people, for example, or people living with schizophrenia, clinical depression, obsessive compulsive disorder, or anorexia nervosa often describe feeling as though they’ve lost access to specific bits of the world, to different affordances, that others take for granted. This diminished access makes them feel less at home in the world. Some even describe feeling as though they inhabit a different world altogether. The way this experience of absence develops, as well as its intensity and character, may differ from case to case. But most find it disturbing and isolating. In addition to feeling its impact on their embodiment and agency, they feel cut off from the possibility of connecting with others and participating in a shared world.

### 3. Affordances, spatial agency, and feeling at home (or not) in the world

I now draw together some previous themes around the idea of “spatial agency”. By “spatial agency”, I simply mean our ability to inhabit, negotiate, and use the different spaces we move through in everyday life (Kukla, 2022). Our spatial agency is central to our experience of being an embodied subject in the world. We all have bodies; or better, we *are* our bodies. They are central to how we experience ourselves and meet the world and its affordances. To be a body is to be an agent capable of doing things in, to, and with the world.

To be *embodied* therefore means that we are also *emplaced*. A central phenomenological insight from thinkers like Husserl, Heidegger, Watsuji, and Merleau-Ponty is that we can only understand bodies and what they can do – their agency – by considering the places and spaces in which their agency is enacted (Casey, 1993; Hunefeldt & Schlitte, 2018; Malpas, 2007; Seamon, 2023). This is because bodies don’t just take up space. They *live* it.

As embodied and emplaced subjects, we have an implicit proprioceptive and kinesthetic sense of where our bodies are located and what sort of things they can do given our bodily capacities and the character and layout of the affordance spaces around us. Ours is a *spatial* agency. As the phenomenologist Tetsurō Watsuji puts it, lived space – in contrast to the physical space of tables, rocks, and trees – “is not so much the essential quality of a physical body as it is the manner in which a subject operates” (Watsuji, 1996, pp. 170–171). So, how we experience our agency, its possibilities and limits, will co-vary with the affordance spaces we encounter and create.

When I am at home or in my office, for instance, I move and do things in ways I don’t when in a public space I share with others or in a new space; I know where things are at and can bodily navigate that space with a freedom and flexibility missing from other contexts. We contour the affordances of our everyday spaces (homes, workspaces, schools, restaurants, gyms, spaces of worship, clubs, pubs, prisons, medical offices, therapeutic settings, etc.) to fit our bodies and support – or in some cases, constrain – their capacities for movement, action, connection, and expression. And crucially, an affordance-based perspective shows us that in configuring our spaces, we are at the same time configuring *ourselves*. Our curated environments reflect our values, needs, preferences, and interests; they open up (or close down) possibilities for agency and self-expression.

Similarly, although they primarily focus on visual perception, something like this is what Gibson and Ulric Neisser (Neisser, 1993) mean when they talk about the “self-specifying” character of affordances. Recall that for Gibson, affordances “point both ways”, to the environment and simultaneously back to the animal who perceives them. “Information about the self”, he tells us, “accompanies information about the environment, and the two are inseparable . . . One perceives the environment and coperceives oneself” (Gibson, 2014, p. 116). Likewise, Neisser tells us that in perceiving the world, we simultaneously perceive the “ecological self”. As we move through the world and do things to it, we are aware of how the world changes and adapts in response. Ecological selves thus “perceive *themselves*, among other things: where they are, how they are moving, what they are doing, and what they might do, whether a given action is their own or not” (*ibid.*, p.4).

The key point here is that just as we are not neutrally *in* a body – we can be comfortable in our bodies or not; feel strong, healthy, confident, attractive, or the opposite of these things – we are likewise not neutrally *in* space the way tables, rocks, and trees are (Lajoie, 2019). Again, we *live* space. It “functions as the *home* or *situation* in which our choosing and meaning-making capacities become possible in the first place” (Jacobson, 2020, p. 57). As landscapes of affordances, spaces are also at the same time landscapes of *meaning*. And they don’t just tell us things about the world (what is possible for us or not; how our



behavior might be enacted or interpreted in different contexts, etc.), but also things about ourselves. Again, they are self-specifying and thus enhance or diminish our agency by dynamically shaping our sense of self as we move through them.

The idea of “spatial agency” foregrounds this feeling of being at-home (or not at-home) in certain affordance spaces. In this way, it adds some important phenomenological texture to characterizations of how we experience different landscapes of affordances. When we feel bodily at home in a space – such as our apartment or house – the affordances of that space “are taken up by and housed in our bodies, and become as familiar to our bodies as our bodies are to ourselves” (Jacobson, 2009, p. 367). We move with an ease, comfort, and spontaneity that makes us feel as though our spatial agency extends *into and through that space*. For example, without thematically or explicitly thinking about these things, my body knows how to navigate down the stairway to the bathroom in the dark; side-step the coffee table in the living room as I pass through carrying bags of groceries; give the finicky kitchen sink an extra half-turn to make sure it doesn’t leak after washing up; how to reach for the pepper in the spice rack next to the stove as I cook with my other hand, etc. To varying degrees, other familiar spaces (office, car, favorite pub or cafe, worship space, etc.) similarly afford the *stability, security, and sense of groundedness* that helps us feel an expansion of our spatial agency as we move through them.

Importantly, this feeling of at-homeness, an expansion of our spatial agency, isn’t just tied to vision. John Hull, who lost his sight in adulthood, describes his own sense of expanded spatial agency when at home – even once his sight left him:

I walked right through the house from the back door to the front door only touching the walls once or twice. I just seemed to know when to step sideways, when to move forward. *The house is an extension of my body*. It is like a skin, something within which I can move and which is appropriate for the proportions of my body (Hull, 1997, p. 177, my emphasis).

These considerations highlight an important point: coming to feel at home in the world involves both *passive* and *active* elements. It is passive insofar as it unfolds in affordance spaces largely created and organized prior to our dwelling in them. We learn to move, perceive, think, and speak in spaces created by parents and other caregivers; our bodily comportment and habits of attention – which enable us to detect and respond to affordances – are shaped by practices and spaces others have organized prior to our existence (Krueger & Maiese, 2018; Maiese, 2018b).

However, feeling at-home involves an *active* element, too – the “work of habituation and inhabitation” (Jacobson, 2009, p. 367). For children and adolescents, for instance, decorating their bedrooms (e.g., with favorite toys,

stuffed animals, religious artifacts, trophies, band posters, pictures of family and friends, etc.) is an important way to actively experiment with and express aspects of their identity and spatial agency (Fidzani & Read, 2014). This self-curated space affords a richly textured feeling of at-homeness, “which affords privacy, refuge, security, continuity, a medium for personalization and self-representation, and a venue for regulated social interactions” (Gosling et al., 2005, p. 52). Later, we take over dorm rooms, homes, cubicles, offices, and other spaces that have been built and organized by others – and we curate and adapt them to become “extensions of our body”, as Hull puts it. In other words, there is a certain kind of activity needed to reach a “position of passive possession” of a given affordance space (*ibid.*, p.367). Our bodies don’t immediately fit into the spaces we inherit. This process of feeling at home takes work, time, and as we’ll explore in more detail shortly, reliable access to resources and support.

In sum, “spatial agency” refers to our ability to inhabit, negotiate, and use the different spaces we move through in everyday life, the different affordances they offer us. It highlights that as embodied subjects, we are also emplaced. Our spatial agency is central to our experience of being an embodied subject situated in the world. And we can feel more or less situated, more or less at home, in different spaces with different affordances available to us – a phenomenological variation in the way our feeling of spatial agency can extend or contract within these different affordance spaces. Before turning specifically to spatial agency and psychopathology, however, there is one more important point to be made, one that has yet to receive much attention (with a few exceptions) in the affordance literature. This concerns the *political dynamics* of spatial agency.

### 3.1 The politics of spatial agency

Although the roots of spatial agency can be found in phenomenological thinkers like Husserl, Heidegger, Watsuji, and Merleau-Ponty – and the idea, as we’ve seen, is also implicit in Gibson’s and Neisser’s discussions of the “self-specifying” character of affordances – the French philosopher and sociologist Lefebvre (1991) further develops a conception of spatiality relevant to present concerns (Awan et al., 2011). First, Lefebvre argues that the production of space is not something subjects do on their own. It is a *shared enterprise*. Second, it is a *dynamic* process without a fixed endpoint. And third, it is *essentially political*, shaped by things like power and history – factors and forces classical phenomenologists, as well as early ecological psychologists, were not sufficiently attuned to (Guenther, 2021).

The importance of these themes for understanding the link between affordances and spatial agency is clear when looking at cases where an individual’s sense of spatial agency and at-homeness in the world is

somehow disrupted or unsettled. Consider first discussions of so-called “hostile architecture” in urban planning and design studies (Rosenberger, 2020). These discussions look at how the affordances of public spaces can be deliberately crafted to discourage certain bodies from feeling at home within them – in particular, vulnerable populations – by impeding, removing, or otherwise manipulating certain affordances. Representative examples include: “anti-homeless” spikes added to a surface or ledge to discourage sitting and sleeping; “anti-sleep” benches with seat dividers or armrests that prohibit bodies from stretching out; “skatestoppers”, or small metal nubs affixed to ledges and handrails, to deter skateboarding; conspicuous security cameras that encourage self-policing in public spaces; and an absence of tables, benches, or toilets in public plazas, parklands, and privately-owned spaces where people might otherwise gather and relax. These strategies for organizing public space can also involve manipulating the sonic environment, too. Examples include playing specific genres of music to encourage certain shopping or dining behavior (DeNora, 2000) or playing classical music or high-pitched sounds only audible to young ears to discourage teenagers from congregating in parks, shopping malls, or other spaces (Hirsch, 2012).

There is much to say about the political dynamics informing these design decisions. For now, the point is simply that they are examples of what Quill Kukla (2022, p. 16) calls a “top-down” form of spatial manipulation – and they impact different bodies in different ways (Hendren, 2020). They are meant to regulate bodies and behavior by deliberately *shrinking* the landscape of available affordances and, in so doing, contracting an individuals’ sense of spatial agency. More perniciously, they signal that certain bodies (e.g., homeless bodies who often have nowhere else to go) are not welcome to meet basic needs for rest, comfort, and security. By removing affordances that would allow bodies to extend into and take shape within these spaces, these decisions deliberately diminish individuals’ spatial agency, force them to move elsewhere, and thus render certain kinds of bodies less visible to other community members, compounding problems of stigmatization and support (Rosenberger, 2020, pp. 888–889).

Again, following Lefebvre, we see that these spatial manipulations are not value-free. They flow from the political power of those who make them, as well as the status they confer on the bodies and spatial agencies impacted by them. In addition to creating physical discomfort, they affirm the lack of standing and power certain bodies (e.g., homeless people) have that must employ active, “bottom-up” strategies (Kukla, 2022, p. 16) to counteract these decisions and craft livable niches for themselves within these spaces.

Arseli Dokumaci considers these and other related themes.<sup>6</sup> She significantly advances the field of affordance research by applying the notion to critical disability studies. Dokumaci develops “activist affordances”, a term she uses

to name and recognize the tiny, everyday artful battles of disabled people for more livable worlds that otherwise remain unaccounted for [...] as a way to understand how disabled people literally make up whatever affordances fail to readily materialize in their environments (or otherwise be immediately available for perception) and at the same time must make up for that failure (Dokumaci, 2023, p. 14).

Dokumaci argues further that individuals must develop activist affordances in response to the “shrinkage” they routinely experience. “Shrinkage” refers to the process in which possible affordances are reduced in a given body-environment relation – a “lessening or diminishing in relation to the scope or range that was available before for the person in pain, the person who falls ill, the person who becomes disabled” (*ibid.*, p.19).<sup>7</sup> To be clear, all of us regularly experience this sort of shrinkage to a certain degree. If I am ill, hungover, tired, or sprain my ankle, say, I will feel a shrinkage of my spatial agency. Affordances that previously beckoned are now experientially present *via their absence*. I see the stairs afford climbing the way I normally expect them to. But my sprained ankle will not allow it. The affordance is perceived as a *present absence*, much like viewing an image on a film negative.

However, the key idea here is that shrinkage Dokumaci is concerned with is often more *systematic*, more enduring and deeply entrenched within artifacts and built environments designed to accommodate certain kinds of bodies and needs but not others. In other words, this shrinkage is caused by *top-down* forces and factors (e.g., design decisions informed by ableist assumptions, socioeconomic factors, politically motivated resource allocations, etc.). In these cases, individuals must devise creative ways – engage in *bottom-up* “artful battles” – to negotiate and ultimately feel at home in affordance spaces that are not set up to support and extend their spatial agency. These techniques help them regain a basic *trust* in their body and world that is lost in the experience of shrinkage (Roberts & Osler, 2023).

For example, buttoning a shirt can be difficult for someone with rheumatoid arthritis-related disabilities like painful, swollen, and bent fingers and joints. So, in addition to devising ways to work around the standard affordances of a button – e.g., bending, squeezing, and pulling the more easily graspable fabric toward and over the button instead of grasping the button first – assistive tools (e.g., buttonhooks) might be brought into the process to create new body-world relations and affordances. Someone with mobility challenges, joint issues, and chronic pain may trim cheap spongy flip-flops into makeshift insoles since they provide a level of comfort standard orthopedic sandals cannot offer. In a culture where squatting remains the common way to use the toilet, a person with rheumatoid arthritis may deliberately seek out narrow toilet spaces with closed-in walls, easily reachable water taps, and doorknobs that afford grasping and holding onto for balance, in addition to their standard use. Others may repurpose

everyday artifacts to bring the world closer, such as placing a concrete block in a car footwell to reduce the distance and range of motion needed to press the gas pedal. Arthritic hands may find it easier to grip certain kitchen utensils (e.g., a stiff wooden spoon) than others (e.g., a flexible plastic cooking spoon), which then become the basis of all their cooking.<sup>8</sup>

The takeaway point is that Dokumaci's work highlights how *bottom-up* "artful battles" help disabled people extend their spatial agency in and through affordance spaces designed in ways that would otherwise contract it. As she tells us, "we do not simply 'fit to' what already exists; instead, we *bend* the environment in ways to make it fit ourselves" (Dokumaci, 2017, p. 404). This "bending" powerfully highlights the *politics* of shrinkage, insofar as disabled bodies are forced to developing their bending techniques because everyday spaces and artifacts are not designed to accommodate their needs or provide "gestures of recognition for the unusual shapes, scales, and abilities that their bodies and minds come with" (*ibid.*, p.11).

Note how these techniques bring the passive-active dynamic introduced previously into even sharper relief. Individuals (passively) inherit affordance spaces that are not set up to fit their bodies and needs. So, they take (active) measures to reconfigure and retrofit these spaces – and combat the "shrinkage" they experience within them – to better fit their bodies, which then allows them (passively) reintegrate with these spaces in a more stable, secure, and skillful way as they go about their everyday lives. They tailor the world to bring it closer. And in extending their spatial agency this way, they recalibrate their feeling of *at-homeness* and *trust* in the world while, at the same time, asserting their identity and visibility.

As Dokumaci makes clear, affordance talk is useful here. It highlights how individuals create new affordances to restore a "sense of the possible" and feeling of at-homeness in spaces not set up to accommodate their bodily needs and values. This creative activity can take many forms that an affordance-based framework can help elucidate.

For instance, it may involve developing skills, habits, and practices of improvisation that enable one to *work around* certain kinds of affordances and "hostile objects", as Dokumaci terms them, in ways that resist their original design but nevertheless get the job done. For example, Dokumaci describes a strategy for when "the design of a zipper asks my fingers to perform actions that they cannot accomplish" (*ibid.*, p. 23). She describes a range of different movements (e.g., bending her knees inward, exhaling a big breath, pushing the zipper up with the nail of her thumb) that allows her to zip up her trousers in a way that "transforms what previously was a hostile object (the zipper) into a welcome and even an accessible one, however momentarily, ephemerally, and counterfactually" (*ibid.*, p.23).

But sometimes this creativity doesn't involve *working around* but rather *bending the world* to better fit bodies by manipulating specific objects and their affordances. This can include some of the examples considered previously (e.g., filling kitchens and homes with specific kinds of utensils, furniture, or clothing; permanently fixing a concrete block in the footwell of a car; inserting softer soles into shoes). Or it may involve designing more complex environments better suited for the needs of specific bodies, allowing them to counteract the “shrinkage” they experience in other contexts and help them extend their spatial agency within a more accommodating niche.

These considerations highlight how affordance talk provides a rich vocabulary for specifying, in very concrete and detailed ways, the *causes* of the loss of at-homeness individuals feel (i.e., the specific forms of material “shrinkage” they encounter); the phenomenological *character* of this shrinkage (i.e., its felt impact on their spatial agency); and some *consequences* of the “artful battles” they enact both to resist it and to achieve recognition in the face of exclusion (i.e., domain-specific techniques and strategies used to re-assert their spatial agency and feel more at home in the body and world, both practically and politically). In this way, we see how affordance talk can help discern, in a fine-grained manner, some of the forces and factors that make some bodies less at home in the world than others – beyond simply talking about a sense of “diminished possibilities”. With this background in place, I now turn to a consideration of how affordances and spatial agency can do similar work in psychopathology.

#### 4. Disturbances of affectivity and spatial agency in psychopathology

Recall Ratcliffe and Broome's worry. They think that in the context of psychopathology, the affordance-concept is “insufficiently discerning”, “lacks the required discriminatory power”, and “should only serve as a starting point” when it comes to understanding the experiential changes associated with severe psychiatric illness. What would be more productive, they argue further, is to develop “a more discerning account of how human experience incorporates a complicated, multi-faceted, dynamic, and cohesive anticipation-fulfillment structure, involving various kinds of significant possibilities” (Ratcliffe & Broome, 2022, p. 66).

To be clear, their critique is rich and subtle, more nuanced than this summary suggests. I cannot do it justice here.<sup>9</sup> Moreover, I am sympathetic with some of their worries, such as their claim that sometimes within the philosophy of psychiatry literature, “the word ‘affordance’ becomes a placeholder, a blank to be filled in” (Ratcliffe & Broome, 2022, p. 65). However, this is not necessarily a limitation of the concept itself. Rather, it is likely because applications of affordance frameworks to psychopathology are part of a still-emerging area of research (Dings, 2020, p. 60). Even the

most ardent supporters acknowledge there is much more work to be done. In fact, Ratcliffe and Broome contribute to this work. At the end of their discussion, they helpfully map out a detailed list of some pressing issues affordances researchers need to address: e.g., “[t]he kind of significant possibility involved; The degree of determinacy with which Y is anticipated; How Y relates to and perhaps integrates a range of other experienced affordances”, etc (Ratcliffe & Broome, 2022, p. 65).

Despite these helpful worries, I still think affordance talk is useful. I now draw on some themes from the previous discussion to indicate how affordances can help specifically in the context of psychopathology. I suggest that affordance talk provides a rich vocabulary for specifying, in concrete ways, the *causes* of the loss of at-homeness individuals feel (i.e., the specific forms of “shrinkage” they encounter); the phenomenological *character* of this shrinkage (i.e., its impact on their affectivity and spatial agency); and some *consequences* of strategies used to negotiate and resist it, and to achieve some degree of recognition and understanding from others. This analysis can, I suggest, productively inform assessment, diagnosis, intervention, and treatment.

#### 4.1 Schizophrenia and depression

Consider affective disturbances in schizophrenia and depression. As a way into this topic, note first that discussions of affordances often adopt a narrow task-oriented perspective. They focus on how people, things, and spaces afford practical actions: people afford handshaking and talking; keyboards afford typing, chairs sitting, and hammers hammering; nightclubs afford dancing, bars drinking. This focus is meant to show how affordances play a key role in shaping how the world becomes present as a space of activity.

As we’ve seen, this perspective is useful for understanding, among other things, how bodies fit into worlds (or don’t). But it’s also incomplete. An excessively task-oriented focus overlooks the role affordances play in shaping our *affective* life: the rich array of moods, emotions, and other feelings that form the felt texture of our being-in-the-world and, more specifically, our feeling of at-homeness (or lack thereof) in different spaces (Carvalho, 2022; Colombetti & Krueger, 2015; Hufendiek, 2017; Piredda, 2020; Saarinen, 2020). We don’t just think and act. We feel things. As the previous sections discussed, we construct niches that regulate our practical actions *and* affective lives at multiple timescales. Having access to the resources and support needed to do this is part of coming to feel at home in our bodies, relationships, and the world more generally.

For example, if we are upset about something, we might seek the comfort of friends, wander through a familiar space (a favorite gallery, cafe, park, or worship space), binge-watch trash TV, slip into comfortable pajamas, drink Belgian beer, play computer games, do yoga, read poetry, listen to music, post a sad selfie on social media to get support from friends, or simply take a nap. Things and spaces – including online spaces (Kaye et al., 2017; Krueger & Osler, 2019) – afford more than just practical actions. They afford *affect regulation*. We modify the world and its affordances to modify our affective life.

How does this relate to psychopathology? In conditions like schizophrenia and depression, individuals often *lose access* to regulative resources within everyday niches – and the character and stability of their spatial agency and affective life is compromised. Accordingly, if we try to understand disturbances of embodiment, agency, and affect in psychiatric illness just by looking inside the individual (e.g., their neurobiology), we fail to capture the full causal complexity of the processes involved in shaping their disordered experience. Instead, we need to bring the world, including specific affordances that are part of it, back into the story.

To see how so, let us revisit the notion of “access” and consider its link with spatial agency and trust (i.e., in one’s body and world). As we’ve seen, part of why our niches do the regulative work they do is because we enjoy reliable access to them. We feel at home and therefore trust them. We trust our niches because we often set them up ourselves (e.g., our home or office). Other niches, such as a gym or public transport system, are set up by others. Nevertheless, we trust these niches, too, because we know what they *mean*, that is, what they afford and what it’s appropriate to do (and not do) when we inhabit them.

But consider next how it *feels*, affectively, when something goes wrong: our smartphone dies and the music abruptly stops in the middle of an intense workout; the makeshift buttonhook we use to get dressed in the morning breaks; the wi-fi in our office building goes down and we feel powerless to work; a wheelchair lift we rely on is out of order; we’re uncomfortable when approached by a distressed person speaking loudly and wearing dirty clothing; we hear a racist slur directed our way or feel a stranger’s hand linger on our thigh while on the subway; we walk into a party and see a table of drinks pulling on our hard-won sobriety.

In these cases, the world stops working the way we expect it to. Our affordance landscape shrinks, and we lose trust and feel disoriented. Even if it’s only a brief experience, a mild sense of disorientation – as opposed to the more enduring form of shrinkage and disorientation Dokumaci considers – this loss of trust arises because we are suddenly aware that some affordances we’d previously taken for granted are now missing. Again, we experience these affordances as present *via their absence*. And



pieces of our affective life go with them. So, this loss of access impacts not only practical possibilities but our moods, emotions, and other feelings, too. Without the motivation of our music, finishing a punishing workout suddenly feels like an impossible task. We are unable to joyfully lose ourselves in a book during our morning commute once our personal space has been threatened.

These are familiar everyday cases of shrinkage where our sense of reality “wobbles” (Ratcliffe, 2015) in some way and we lose trust in the world. Most of us regain this trust quickly as we adapt and move on. As we saw previously, sometimes this process takes more time and effort as we craft new body-affordance relations (e.g., developing trial-and-error strategies to fight the everyday “artful battles” Dokumaci explores). However, in schizophrenia and clinical depression, this loss of trust is more global and persistent. In these cases, individuals no longer feel at home in a world they share with others. Their spatial agency contracts and they feel cut off from affordances that both ground them in the world and help them connect with others and share emotions and experiences (Maiese, 2021). This is clear in how they describe their experience. Clinically depressed patients say things like, “It is the glass wall that separates us from life, from ourselves, that is so truly frightening in depression. . . It is like living in a parallel universe” (Brampton, 2008, p. 171). We hear similar reports from people with schizophrenia: “I feel disconnected”; “A wall of void isolated me from everybody”; “It is as if there were two worlds” (Stanghellini & Rosfort, 2013, p. 246).

Schizophrenia and depression are not the same thing, of course. But they do share some phenomenological similarities (Sass & Pienkos, 2013a, 2013b). For our purposes, what is interesting is that this feeling of being cut off from the world seems to flow from a disturbed sense of embodiment and diminished spatial agency that impedes the individual’s ability to affect, and be affected by, specific affordances offered by others and the world more generally (de Haan & Fuchs, 2010). Individuals with schizophrenia and depression often describe feeling as though they don’t fit into their body the way others do; they feel alienated from their body and lack the ability to do things, respond to, and be affected by the world in a spontaneous way. Sometimes they even experience their body as an object that must be overcome to access the world.

These bodily disturbances profoundly change how individuals experience the niches they share with others, including the things and spaces that make up these niches. They experience various affordances as present *via their absence*. And this disturbance of spatial agency, in turn, leads to a kind of felt shrinkage as bits of the world others enjoy access to seem very far away or somehow inaccessible.

For example, some people with schizophrenia describe being drawn to the empty space surrounding people and things instead of the things themselves

(Jaspers, 1963, p. 81). Others perceive objects and their affordances as fragmented, flat, shifting, unrelated to one another, or distilled to pure geometric qualities that lack meaning (Silverstein et al., 2017). One person says, “Everything around me is immobile. Things appear isolated, each one in itself, without suggesting anything. Certain things which ought to evoke memory, evoke an immense number of thoughts... remain isolated. They are more understood than experienced” (Minkowski, 1970, p. 276). In *Autobiography of a Schizophrenic Girl*, Marguerite Sechehaye (1970) recounts the experience of affordance changes in Renee, a schizophrenic patient: “When, for example, I looked at a chair or a jug, I thought not of their use or function – a jug not as something to hold water and milk, a chair not as something to sit in – but as having lost their names, their functions and meanings” (Sechehaye, 1970, pp. 55–56). These individuals are often aware that their experience of the world and its affordances differs from others but feel powerless to change it.

In depression, the world can be experienced as similarly inaccessible, as bodily out of reach. This is because “the conative dimension of the body, that is, its affective and appetitive directedness, is lacking or missing. Normally, it is this dimension that opens up peripersonal space as a realm of possibilities, ‘affordances’ and goals for action” (Fuchs & Schlimme, 2009, p. 572). We find reports like: “You look at the world, the array of things that you could do and they’re completely meaningless to you. They are as meaningless to you as if you were an earthworm” (Karp, 1996, p. 32). Echoing reports from people with schizophrenia, some people even describe feeling a global shift in how they experience the *meaning* of the world and things in it. Often, things no longer exert the affective allure over one’s spatial agency that one might expect: “Living with depression is like living in black and white when everyone else is living in color” (Benson et al., 2013, p. 73). But it can also suggest that the meaning of specific things, their affordance structure, has shifted – and subsequently, their affective and regulative significance, too. Windows that once afforded looking through to savor the light and landscape now beckon relentlessly as a portal to a quick death; a fancy kitchen knife that previously summoned happy memories of shared meals and laughter now affords cutting human flesh and ending one’s pain (Krueger & Colombetti, 2018, p. 237).

Affordance frameworks can help us add phenomenological nuance to these reports. The shrinkage described here seems to involve at least three dimensions, which affordances can help illuminate (see also de Haan et al., 2013; Maiese, 2021, pp. 191–192). Recall that these dimensions are *width*, or broadness of the scope of affordances one perceives; *depth*, or temporal aspects and horizons of future possible actions beyond the here-and-now; and *height*, or motivational and affective salience of the affordances that one is responsive to.

Depressive experience appears to involve a shrinkage across all three dimensions. First, the “width” of one’s affordance space shrinks in that

depressed individuals fail to act on affordances that, in principle, remain available to them given their bodily capacities: “There is the feeling that your life ‘contracts’ – you stop seeing it as an expansive project and it all zeroes in on feelings of despair” (quoted in Slaby et al., 2013, p. 12). Second, the “depth” of the affordances space shrinks, in that individuals become incapable of envisioning future possibilities or imagining their life otherwise – something that others around them appear to regularly do – which intensifies their sense of disconnectedness and feeling that they are “stuck” in the present (Maiese, 2018a; Ratcliffe, 2012). Finally, the “height” of one’s affordance space compresses in that no single action-possibility is more inviting or compelling than the other (“You look at the world, the array of things that you could do and they’re completely meaningless to you”). Similar descriptions across these three dimensions can be given for schizophrenia, as well as disorders like obsessive-compulsive disorder (de Haan et al., 2013) and Attention Deficit Hyperactivity Disorder (ADHD) (Maiese, 2021).

The takeaway point is that in these cases, a disturbance of one’s bodily relation to the world, one’s sense of spatial agency, leads to a loss of trust – a sense that one no longer has reliable access to the same niches, the same affordances, that others enjoy. The world shrinks, and some affordances are experientially present via their absence. As a result, individuals no longer feel at home in the world. They feel disoriented, cut off from a shared world of interpersonal meaning. But part of this feeling arises from a loss of access to the built environment, too. When individuals lose access to regulative resources within their everyday niches – particularly in an enduring way, such as with schizophrenia and clinical depression – the stability and organization of their affective life is deeply compromised.

## 4.2 Autism

As we’ve seen, affordances not only guide action. They regulate affect. Our niches do some of this work for us – often transparently, in the background – as we find our way through the world. They are set up to make us feel at home in them. But this is not the case for all niches. The discussion of schizophrenia and depression provides examples of *bottom-up* disturbances of spatial agency and affectivity. Disturbances of the former lead to a felt shrinkage of one’s affordance space, a loss of access to regulative resources (both people and things), which negatively impacts the latter. But as we considered earlier, sometimes a shrinkage of spatial agency and affordance spaces flows from *top-down* factors. Some niches are set up to *deprive* certain people of access to certain affordances. This might be deliberate – or it might not. Either way, it reminds us once again that niches and the affordances that comprise them have political and ethical significance.

Considering disturbances of spatial agency and affect in autism brings this point into sharper relief.<sup>10</sup>

Although she does not explicitly appeal to affordances – drawing instead on Husserl’s analysis of “orientation”, or way of being directed toward the world – Sara Ahmed (2007) explores the bodily impact of inhabiting hostile niches configured to deliberately constrain certain bodies (e.g., queer bodies, severely ill or disabled bodies, nonwhite bodies) by removing affordance and diminishing their spatial agency. She develops her phenomenology of “being stopped” to explore what it’s like for nonwhite bodies, or those with “suspicious” (i.e., “terrorist sounding”) names, to be stopped by the police more than other kinds of bodies. But this stopping can occur in other contexts, too, such as when nonwhite bodies are bombarded with racist images and memes online or passed over for a job promotion despite being equally well-qualified.

For Ahmed, this stopping doesn’t just place practical constraints on stopped bodies. What is salient here is that it has *affective* consequences, too. It induces a feeling of *disorientation*: an experience of one’s body, one’s spatial agency, as deeply out-of-sync with the world. This is because the threat of being stopped is pervasive, materially encoded in how some affordances (e.g., freedom of movement, access to certain resources and spaces) are presented as accessible for some bodies but not others. Some affordances are experientially present via their absence. As a result, “[t]hose who get stopped are *moved in a different way*” as they find their way through the world (Ahmed, 2007, p. 162). They feel a persistent resistance to expressions of their spatial agency.

This perspective can help us understand the narratives of some autistic people. They describe the feeling that to be an autistic person in the world is to be a stopped body (Krueger, 2021b). Often, autistic bodies are stopped from extending their spatial agency into and through the affordance spaces they inhabit – niches designed to primarily accommodate how neurotypical bodies move, speak, act, and relate. This stopping leads to experiences of disorientation and a loss of trust. It involves an enduring feeling that one is not at home or welcome in these spaces. And it can also lead to affective disturbances, too.

From a neurotypical perspective, autistic people may have unusual styles of embodiment (Krueger, 2021a; Leary & Donnellan, 2012). The timing and flow of their movements can seem strange or inappropriate. They may have an unusual gait or posture, or have tics and habits (hand-flapping, spinning, etc.) that are off-putting for people not accustomed to them. They may also repeatedly shrug, squint, pout, or rock back and forth; appear “stuck” in indecisive movements for a long time; turn away from social encounters; or repeatedly touch or handle a particular object.

Many autistic people feel that their bodily style does not fit smoothly into neurotypical niches, even if they don't understand how or why this is so, exactly. This can be confusing and frustrating: "I have been endlessly criticized about how different I looked, criticized about all kinds of tiny differences in my behavior. . . no one ever tried to really understand what it was like to be me . . ." (Robledo et al., 2012, p. 6). What reports like this convey is that for many autistic people, moving through neurotypical niches involves a perpetual anticipation of being stopped. They struggle to comfortably extend themselves into spaces organized around the form, and *norms*, of neurotypical bodies. Instead, they feel that the way they experience and use their bodies, their distinctive form of spatial agency, is frowned upon when in these spaces.

For example, within autistic communities, it is acceptable to avoid making eye contact when speaking with someone, take a long pause before responding (Leary & Donnellan, 2012), or provide direct answers to potentially sensitive questions ("Do I look good in this shirt?"; "No, you do not!") (Chapman, 2019, p. 430). But these practices are discouraged in neurotypical niches. The feeling of being stopped also applies to self-directed bodily practices of "stimming" – hand-flapping, finger snapping, tapping objects, repetitive vocalizations, rocking back and forth, etc. — that help autistic people manage incoming sensory information and feel rooted in their bodies and the world. These things can confuse neurotypicals or make them uncomfortable. Such behavior is seen as socially inappropriate – even though neurotypical people routinely stim when fidgeting by chewing on a pen, humming softly, bouncing their leg, toe-tapping, etc. However, medical culture characterizes autistic stimming through clinical designations and pathologizing definitions ("stereotypies" or "self-stimulatory behaviors"), as opposed to the non-pathologizing language of neurotypical "fidgeting" (Felepchuk, 2021). And treatment programs, often developed with little input from people with ASD, traditionally try to suppress or eliminate them.

Yet, when asked, autistic people routinely describe the importance of stimming as an adaptive mechanism that helps them regulate or express intense thoughts and emotions (Kapp et al., 2019). In other words, stimming is a way of (re)asserting their diminished spatial agency – a "way to generate a sense of rhythmic order, connecting the mind, body, and external environment", as well as "a way to reclaim autistic bodies in a society that silences [them]" (Felepchuk, 2021, p. 4, 6). It might be seen, I suggest, as akin to the creation of Dokumaci's "activist affordances", domain-specific techniques autistic bodies use to navigate affordance spaces designed and built by people *without* sensory processing differences. For example, during COVID-19, many autistic people found mask-wearing sensorily overwhelming (e.g., common fabrics were itchy and made it difficult to breathe),

so they used stimming practices to deal with this discomfort when forced to wear them (e.g., chewing gum) (*ibid.*, p.9). Others may do things like intentionally squint, or wear sunglasses, headphones, or a wide-brimmed hat, when negotiating noisy or brightly lit spaces like gyms and large supermarkets (Kapp et al., 2019).

This last example emphasizes how the feeling of being stopped is not limited to face-to-face interactions. It also arises when dealing with the *built environment*, too. This is a central aspect of everyday autistic experience that an affordance-based approach can help illuminate. A noisy, brightly lit lecture hall, restaurant, gym, or retail space may negatively impact an autistic individual's auditory and visual hypersensitivity in ways neurotypical bodies don't understand or appreciate. One person tells us that, when moving through such spaces, "I still get visually overloaded . . . if I could get away with going around blindfolded there are times when that would be easier than being distracted by a bunch of visual clutter" (Leary & Donnellan, 2012, p. 56). Another describes how sounds, smells, tactile qualities, and visual aspects blend to create an overwhelming and intense atmosphere: "It is like a constant blanket of sound that just keeps coming at you until you are totally disoriented" (Boldsen, 2022a, p. 5).

As these reports make clear, the design of many everyday spaces does not afford feeling at home for autistic people. The bright lights, temperature, smells, cramped arrangement, and constant din of unpredictable noise – along with the social pressure to mask stimming practices that might otherwise help deal with these things – make them disorienting and bodily upsetting. Since it is impossible to settle comfortably into these niches, autistic bodies are instead placed in a reactive mode where they are constantly battling this flood of overwhelming sensory information, which shrinks the scale and scope (i.e., *width* and *depth*) of affordances they can access. As a result, possibilities for affect regulation, social connection, and shared experience – beyond whatever practical actions these spaces afford – are experienced as bodily out of reach.

Crucially, these observations indicate that some of the social difficulties autistic people face aren't caused just by things going on inside their head (e.g., neurocognitive deficits, as is often assumed). Instead, they arise *relationally*, in the way that many everyday niches are not set up to be flexible and responsive to neurodivergent styles of embodiment, expression, and orientation. These niches limit access to affordances and interactive possibilities that neurotypical bodies take for granted (Constant et al., 2020; Krueger & Maiese, 2018; McGeer, 2009; Schilbach, 2016).

Accordingly, an affordance-based approach to autism draws our attention to the role that bodily, interactive, *and* spatial features play in shaping social difficulties. And this is significant for intervention and treatment. It suggests that instead of trying to "fix" the heads of autistic people (i.e.,

expecting them to conform to neurotypical styles of embodiment and thinking), we ought to instead construct niches that are more flexible and inclusive. For example, we should consider how things like colors, lights, textures, sounds, and smells may potentially disorient neurodivergent styles of embodiment and sensory processing and adjust our design approach accordingly (Boldsen, 2022b). It also suggests that neurotypicals – and not just autistic people – may benefit from social skills training. This may help them become more sensitive to and comfortable with neurodivergent ways of being in the world. By widening our perspective in the ways discussed above, an affordance-based approach equips us with some of the resources needed for this task.

## 5. Conclusion

I argued that affordance-based approaches can be useful in the context of psychopathology. They provide conceptual resources for clarifying some of the *causes*, *character*, and *consequences* of self-world disturbances – particularly those involving disruptions of our spatial agency – in a way more general talk of “a sense of the possible” cannot. Moreover, by bringing the world into the story in a concrete way, affordances can help illuminate the ongoing role the *built environment* plays in shaping and sustaining our spatial agency – or, conversely, weakening and disturbing it. This environmental focus also productively highlights political and ethical dimensions of these spatial disturbances that warrant further attention.

Many discussions of affordances focus on what bodies *do with* different affordances. A contribution of this analysis, I hope, has been to draw attention to what happens when some bodies must, for various reasons, *do without* certain affordances. Sometimes, this doing without stems from an alteration of the meaning or availability of different affordances (e.g., self-world disturbances in depression or schizophrenia). However, sometimes this absence may stem from the way environments are configured to *deprive* certain bodies of certain affordances. As our discussion of Dokumaci’s important work – as well as our brief consideration of autism – demonstrated, this approach foregrounds the politics of affordances and spatial agency in useful ways.

As a way of further responding to worries like Ratcliffe’s and Broome’s, affordance researchers in psychopathology would therefore be well-served to engage more substantively with ongoing work on body-environment relations in critical disability studies, as well as discussions of spatial agency in architectural studies and urban design. This work can provide helpful analysis of how different forces, factors, and features of the sociomaterial environment shape the fit (or lack thereof) between bodies and their niches – often in a very fine-grained way. Moreover, in addition to enriching the

sometimes narrow task-oriented, practical focus of many discussions of affordances in philosophy and psychology, this work also productively illuminates both the *affective* and *temporal* dimensions of body-world relations, that is, the way losing (or being deprived of) access to certain affordances may spark new affect-laden meaning-making practices that alter how bodies engage with their lifeworld over multiple timescales.<sup>11</sup>

For example, some people who experience auditory verbal hallucinations (AVH) – a feature of several psychiatric disorders, but also occurring in a minority of the general population without any need for care (Johns et al., 2014) – experience their voices as negative, unpleasant, or distressing. Persistent negative AVH can lead to various difficulties connecting with others and the wider world. However, there is some evidence that treating and relating to voices heard in AVH like social agents (i.e., instead of hallucinations) can have therapeutic benefits for the voice-hearer, helping them to positively regulate their affective responses while reintegrating with their lifeworld (Deamer & Wilkinson, 2015).

There is much more to say, of course, and other domains where affordances might do productive work. It remains an open question whether an affordance framework will have something to say about *all* forms of psychopathology. Here, my focus has mainly been on affective disturbances. However, insofar as most forms of psychopathology impact or centrally involve our emotions, moods, and other feeling states – and involve some kind of alteration of our agency and habitual patterns of world-directed behavior – it seems likely that affordances will contribute helpful descriptive and explanatory resources in these cases, too.

To give just one example, consider eating disorders. Although eating disorders like Anorexia Nervosa (AN) have recently received increased philosophical attention, particularly from those working in phenomenological psychopathology, these discussions have yet to make substantial use of affordance-based perspectives. But affordances might be useful here, too.

Recent discussions have pushed back against the “desire for thinness” narratives that dominate much AN research. These narratives, critics argue, oversimplify practices of disordered eating by reducing them to disturbances of, or an unhealthy obsession with, one’s body-image. But this is problematic. These reductive narratives overlook the complex *bodily*, *affective*, and *social* factors that together shape and sustain practices of disordered eating, including disruptions of spatial agency that are part of such practices (e.g., Bowden, 2012; Evans, 2022; Legrand & Briend, 2015; Osler, 2021).

Affordances might helpfully supplement these approaches. For example, affordances might help better understand the role that self-curated environments play in *scaffolding* practices of disordered eating – i.e., the many rituals, practices, tools, and strategies individuals use to shape and regulate, at multiple timescales, their desire for food and disordered



eating. These practices change one's field of affordances, particularly when it comes to food and food-related practices. They include things like setting up intricate eating rituals to slow down the eating process and minimize consumption, avoiding public rituals that center on food, or using various technologies for hyper-diligent calorie counting (Osler & Krueger, 2022). Within anorectic communities, individuals also increasingly turn to online spaces (so-called "ProAna communities") as part of their practice. These spaces provide *social resources* — solidarity, support, and recognition from other committed anorectics — missing from their offline life, where anorectics instead routinely encounter judgment and stigmatization (Osler & Krueger, 2022). An affordance-based approach can help further clarify both what sort of affective and regulative resources these spaces make available to anorectics as well as how their relationship to them ought to be factored into strategies for intervention and treatment. But that is a discussion for another time.<sup>12</sup> By attempting to clarify some contributions affordances might make in this context, this paper has attempted to invite such a discussion.

## Notes

1. I am very grateful for the careful and detailed feedback from two anonymous reviewers. Their comments greatly improved this paper. I'd also like to thank Cathrin Fischer for conversations about a range of issues, particularly those related to embodiment, disability, and prostheses. These conversations prompted me think about familiar ideas in new ways.
2. I did not come up with this concept. I say more about its origin below.
3. Dokumaci (2023, p. 37) notes that discussions of affordances have not sufficiently engaged with how body-affordance relations change over multiple timescales — bodies change in ways over short and long periods of time, and in ways that can be idiosyncratic and unpredictable — as well as the different forms and degrees of labor, creativity, and improvisation needed to act on specific affordances. Her notion of "shrinkage", which I discuss in more detail below, addresses this temporal variability of body-affordance relations.
4. See McClelland and Jorba (2022) and McClelland and Sliwa (2022) for more, including discussion of some relevant work in cognitive neuroscience. See also Dings (2018) for a helpful discussion.
5. Disability justice advocate Mia Mingus (2011) coined the suggestive term "access intimacy" to encompass some of the themes I discuss here. See also Hamraie and Fritsch (2019) and Valentine (2020).
6. Although they don't focus on affordances as specifically as Dokumaci does, Kukla (2022) is another excellent recent book-length study of the politics of spatial agency. See also Bloomfield et al. (2010) and Burns et al. (2009) for more efforts to bring affordance research into disability studies, and Garland-Thomson (2011) for a rich treatment of some themes I discuss here. de Carvalho and Krueger (2023) consider related themes in the context of implicit bias and niche construction theory.

7. Although she draws primarily on phenomenology instead of ecological psychology, Carel (2013) explores some similar themes with her notion of “bodily doubt”.
8. See Dokumaci (2017, 2023) for many more examples.
9. Again, see Dings (2020, 2021) for a careful and sympathetic critical engagement.
10. I do not view autism as a psychiatric or medical disorder but, in line with many contemporary autistic communities and advocates, instead see it as a distinct form of life (Chapman & Bovell, 2022; Walker, 2021).
11. I am grateful to a reviewer for raising this point.
12. See Gallagher (2018) for helpful suggestions about how an affordance framework might shape the design of virtual and mixed realities for addressing psychiatric disorders.

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## References

- Ahmed, S. (2006). *Queer phenomenology: Orientations, objects, others*. Duke University Press.
- Ahmed, S. (2007). A phenomenology of whiteness. *Feminist Theory*, 8(2), 149–168. <https://doi.org/10.1177/1464700107078139>
- Awan, N., Schneider, T., & Till, J. (2011). *Spatial agency: Other ways of doing architecture* (1st ed). Routledge.
- Benson, O., Gibson, S., & Brand, S. L. (2013). The experience of agency in the feeling of being suicidal. *Journal of Consciousness Studies*, 20(7–8), 56–79. <https://www.ingentaconnect.com/contentone/imp/jcs/2013/00000020/f0020007/art00004>
- Bloomfield, B. P., Latham, Y., & Vurdubakis, T. (2010). Bodies, technologies and action possibilities: When is an affordance? *Sociology*, 44(3), 415–433. <https://doi.org/10.1177/0038038510362469>
- Boldsen, S. (2022a). Autism and the sensory disruption of social experience. *Frontiers in Psychology*, 13, 874268. <https://doi.org/10.3389/fpsyg.2022.874268>
- Boldsen, S. (2022b). Material encounters. A phenomenological account of social interaction in autism. *Philosophy, Psychiatry, & Psychology*, 29(3), 191–208. <https://doi.org/10.1353/ppp.2022.0039>
- Bowden, H. (2012). A phenomenological study of anorexia nervosa. *Philosophy, Psychiatry, & Psychology*, 19(3), 227–241. <https://muse.jhu.edu/pub/1/article/489100>
- Brampton, S. (2008). *Shoot the damn dog: A memoir of depression*. Bloomsbury Publishing Plc.
- Brancazio, N. (2020). Being perceived and being “seen”: Interpersonal affordances, agency, and selfhood. *Frontiers in Psychology*, 11(1750), 1–12. <https://doi.org/10.3389/fpsyg.2020.01750>
- Burns, N., Paterson, K., & Watson, N. (2009). An inclusive outdoors? Disabled people’s experiences of countryside leisure services. *Leisure Studies*, 28(4), 403–417. <https://doi.org/10.1080/02614360903071704>
- Carel, H. (2013). Bodily doubt. *Journal of Consciousness Studies*, 20(7–8), 178–197. <https://www.ingentaconnect.com/content/imp/jcs/2013/00000020/F0020007/art00009>
- Carvalho, E. (2022). Affective affordances direct perception meets affectivity. *Perspectiva Filosófica*, 49(5), 29. <https://doi.org/10.51359/2357-9986.2022.256752>
- Casey, E. S. (1993). *Getting back into place: Toward a renewed understanding of the place-world*. Indiana University Press.

- Chapman, R. (2019). Autism as a form of life: Wittgenstein and the psychological coherence of autism. *Metaphilosophy*, 50(4), 421–440. <https://doi.org/10.1111/meta.12366>
- Chapman, R., & Bovell, V. (2022). Neurodiversity, advocacy, anti-therapy. In *Handbook of autism and pervasive developmental disorder* (pp. 1519–1536). Springer International Publishing.
- Chemero, A. (2003). An outline of a theory of affordances. *Ecological Psychology: A Publication of the International Society for Ecological Psychology*, 15(2), 181–195. [https://doi.org/10.1207/S15326969ECO1502\\_5](https://doi.org/10.1207/S15326969ECO1502_5)
- Chemero, A. (2009). *Radical embodied cognitive science*. The MIT Press. <https://doi.org/10.7551/mitpress/8367.001.0001>
- Colombetti, G., & Krueger, J. (2015). Scaffoldings of the affective mind. *Philosophical Psychology*, 28(8), 1157–1176. <https://doi.org/10.1080/09515089.2014.976334>
- Constant, A., Bervoets, J., Hens, K., & Van de Cruys, S. (2020). Precise worlds for certain minds: An ecological perspective on the relational self in autism. *Topoi: An International Review of Philosophy*, 39(3), 611–622. <https://doi.org/10.1007/s11245-018-9546-4>
- Crippen, M., & Klement, V. (2020). Architectural values, political affordances and selective permeability. *Open Philosophy*, 3(1), 462–477. <https://doi.org/10.1515/opphil-2020-0112>
- Deamer, F., & Wilkinson, S. (2015). The speaker behind the voice: Therapeutic practice from the perspective of pragmatic theory. *Frontiers in Psychology*, 6, 6. <https://doi.org/10.3389/fpsyg.2015.00817>
- de Carvalho, F. N., & Krueger, J. (2023). Biases in niche construction. *Philosophical Psychology*, 1–31. <https://doi.org/10.1080/09515089.2023.2237065>
- de Haan, S. (2020). *Enactive psychiatry*. Cambridge University Press.
- de Haan, S., & Fuchs, T. (2010). The ghost in the machine: Disembodiment in Schizophrenia – Two case studies. *Psychopathology*, 43(5), 327–333. <https://doi.org/10.1159/000319402>
- de Haan, S., Rietveld, E., Stokhof, M., & Denys, D. (2013). The phenomenology of deep brain stimulation-induced changes in OCD: An enactive affordance-based model. *Frontiers in Human Neuroscience*, 7, 1–14. <https://doi.org/10.3389/fnhum.2013.00653>
- DeNora, T. (2000). *Music in everyday life*. Cambridge University Press.
- Dings, R. (2018). Understanding phenomenological differences in how affordances solicit action. An exploration. *Phenomenology and the Cognitive Sciences*, 17(4), 681–699. <https://doi.org/10.1007/s11097-017-9534-y>
- Dings, R. (2020). Psychopathology, phenomenology and affordances. *Phenomenology and Mind*, 18, 56–66. <https://doi.org/10.17454/pam-1804>
- Dings, R. (2021). Meaningful affordances. *Synthese*, 199(1–2), 1855–1875. <https://doi.org/10.1007/s11229-020-02864-0>
- Dokumaci, A. (2017). Vital affordances, occupying niches: An ecological approach to disability and performance. *Research in Drama Education: The Journal of Applied Theatre and Performance*, 22(3), 393–412. <https://doi.org/10.1080/13569783.2017.1326808>
- Dokumaci, A. (2023). *Activist affordances: How disabled people improvise more habitable worlds*. Duke University Press.
- Evans, A. (2022). Anorexia nervosa: Illusion in the sense of agency. *Mind & Language*, 38(2), 480–494. <https://doi.org/10.1111/mila.12385>
- Felepchuk, E. (2021). Stimming, improvisation, and COVID-19: (re)negotiating autistic sensory regulation during a pandemic. *Disability Studies Quarterly: DSQ*, 41(3). <https://doi.org/10.18061/dsq.v41i3.8426>
- Fidzani, L. C., & Read, M. A. (2014). Identity expression and bedroom personalization by urban adolescents in Botswana. *Journal of Adolescent Research*, 29(6), 691–715. <https://doi.org/10.1177/0743558413502533>

- Fuchs, T., & Schlimme, J. E. (2009). Embodiment and psychopathology: A phenomenological perspective. *Current Opinion in Psychiatry*, 22(6), 570–575. <https://doi.org/10.1097/YCO.0b013e3283318e5c>
- Gallagher, S. (2018). The therapeutic reconstruction of affordances. *Res Philosophica*, 95(4), 719–736. <https://doi.org/10.11612/resphil.1723>
- Garland-Thomson, R. (2011). Misfits: A feminist materialist disability concept. *Hypatia*, 26(3), 591–609. <https://doi.org/10.1111/j.1527-2001.2011.01206.x>
- Gibson, J. J. (2014). *The ecological approach to visual perception: Classic edition* Original work published 1979. Psychology Press.
- Gosling, S. D., Craik, K. H., Martin, N. R., & Pryor, M. R. (2005). The personal living space cue inventory: An analysis and evaluation. *Environment and Behavior*, 37(5), 683–705. <https://doi.org/10.1177/0013916504274011>
- Guenther, L. (2021). Six senses of critique for critical phenomenology. *Journal of Critical Phenomenology*, 4(2), 5–23. <https://doi.org/10.5399/PJCP.v4i2.2>
- Hamraie, A., & Fritsch, K. (2019). Crip technoscience manifesto. *Catalyst: Feminism, Theory, Technoscience*, 5(1), 1–33. <https://doi.org/10.28968/cftt.v5i1.29607>
- Heft, H. (2001). *Ecological psychology in context: James Gibson, Roger Barker, and the legacy of William James's radical empiricism*. Lawrence Erlbaum Associates, Publishers.
- Hendren, S. (2020). *What can a body do? How we meet the built world*. Riverhead Books.
- Heras-Escribano, M. (2019). *The philosophy of affordances*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-319-98830-6>
- Hirsch, L. E. (2012). *Music in American crime prevention and punishment*. University of Michigan Press.
- Hufendiek, R. (2017). Affordances and the normativity of emotions. *Synthese*, 194(11), 4455–4476. <https://doi.org/10.1007/s11229-016-1144-7>
- Hull, J. M. (1997). *On sight and insight: A journey into the world of blindness*. Oneworld Publications.
- Hunefeldt, T., & Schlitte, A., (Eds.). (2018). *Situatedness and place: Multidisciplinary perspectives on the spatio-temporal contingency of human life* (1st ed.). Springer International Publishing. [https://doi.org/10.1007/978-3-319-92937-8\\_1](https://doi.org/10.1007/978-3-319-92937-8_1)
- Jacobson, K. (2009). A developed nature: A phenomenological account of the experience of home. *Continental Philosophy Review*, 42(3), 355–373. <https://doi.org/10.1007/s11007-009-9113-1>
- Jacobson, K. (2020). Spatiality and agency: A phenomenology of containment. *Journal of Critical Phenomenology*, 3(2), 54–75. <https://doi.org/10.5399/PJCP.v3i2.8>
- Jaspers, K. (1963). *General psychopathology* (J. Hoenig & M. W. Hamilton, Trans.). Manchester University Press.
- Johns, L. C., Kompus, K., Connell, M., Humpston, C., Lincoln, T. M., Longden, E., Preti, A., Alderson-Day, B., Badcock, J. C., Cella, M., Fernyhough, C., McCarthy-Jones, S., Peters, E., Raballo, A., Scott, J., Siddi, S., Sommer, I. E., & Larøi, F. (2014). Auditory verbal hallucinations in persons with and without a need for care. *Schizophrenia Bulletin*, 40(Suppl\_4), S255–64. <https://doi.org/10.1093/schbul/sbu005>
- Kapp, S. K., Steward, R., Crane, L., Elliott, D., Elphick, C., Pellicano, E., & Russell, G. (2019). “People should be allowed to do what they like”: Autistic adults’ views and experiences of stimming. *Autism: The International Journal of Research & Practice*, 23(7), 1782–1792. <https://doi.org/10.1177/1362361319829628>
- Karp, D. (1996). *Speaking of sadness: Depression, disconnection, and the meanings of illness*. Oxford University Press.

- Kaye, L. K., Malone, S. A., & Wall, H. J. (2017). Emojis: Insights, affordances, and possibilities for psychological science. *Trends in Cognitive Sciences*, 21(2), 66–68. <https://doi.org/10.1016/j.tics.2016.10.007>
- Kim, N.-G., & Effken, J. A. (2022). Disturbance of ecological self and impairment of affordance perception. *Frontiers in Psychology*, 13(925359). <https://doi.org/10.3389/fpsyg.2022.925359>
- Krueger, J. (2020). Schizophrenia and the scaffolded self. *Topoi*, 39(3), 597–609. <https://doi.org/10.1007/s11245-018-9547-3>
- Krueger, J. (2021a). Enactivism, other minds, and mental disorders. *Synthese*, 198(S1), 365–389. <https://doi.org/10.1007/s11229-019-02133-9>
- Krueger, J. (2021b). Finding (and losing) one's way: Autism, social impairments, and the politics of space. *Phenomenology and Mind*, 21, 20–33. <https://doi.org/10.17454/pam-2102>
- Krueger, J., & Colombetti, G. (2018). Affective affordances and psychopathology. *Discipline Filosofiche*, 18(2), 221–247.
- Krueger, J., & Maiese, M. (2018). Mental institutions, habits of mind, and an extended approach to autism. *Thaumazein*, 6, 10–41. <https://doi.org/10.13136/thau.v6i0.90>
- Krueger, J., & Osler, L. (2019). Engineering affect: Emotion regulation, the internet, and the techno-social niche. *Philosophical Topics*, 47(2), 205–231. <https://doi.org/10.5840/philtopics201947223>
- Kukla, Q. R. (2022). *City living: How urban spaces and urban dwellers make one another*. Oxford University Press. <https://doi.org/10.1093/oso/9780190855369.001.0001>
- Lajoie, C. (2019). Being at home: A feminist phenomenology of disorientation in illness. *Hypatia*, 34(3), 546–569. <https://doi.org/10.1111/hypa.12476>
- Leary, M. R., & Donnellan, A. M. (2012). *Autism: Sensory-movement differences and diversity*. Cambridge Book Review Press.
- Lefebvre, H. (1991). *The production of space* (D. Nicholson-Smith, Trans., 1st ed). Blackwell.
- Legrand, D., & Briend, F. (2015). Anorexia and bodily intersubjectivity. *European Psychologist*, 20(1), 52–61. <https://doi.org/10.1027/1016-9040/a000208>
- Maiese, M. (2018a). Getting stuck: Temporal desituatedness in depression. *Phenomenology and the Cognitive Sciences*, 17(4), 701–718. <https://doi.org/10.1007/s11097-017-9538-7>
- Maiese, M. (2018b). Life shaping, habits of mind, and social institutions. *Natureza Humana - Revista Internacional de Filosofia E Psicanálise*, 20(1), 4–28.
- Maiese, M. (2021). Enactivism, the field of affordances, and mental disorder. *The Journal of Mind and Behavior; New York*, 42(2), 175–196.
- Malpas, J. (2007). *Place and experience: A philosophical topography*. Cambridge University Press.
- McClelland, T., & Jorba, M. (2022). Perceptual motivation for action. *Review of Philosophy and Psychology*, 1–20. <https://doi.org/10.1007/s13164-021-00608-8>
- McClelland, T., & Sliwa, P. (2022). Gendered affordance perception and unequal domestic labour. *Philosophy and Phenomenological Research*. <https://doi.org/10.1111/phpr.12929>
- McGeer, V. (2009). The skill of perceiving persons. *The Modern Schoolman*, 86(3), 289–318. <https://doi.org/10.5840/schoolman2009863/45>
- Mingus, M. (2011, May 5). Access intimacy: The missing link. *Leaving Evidence*. <https://leavingevidence.wordpress.com/2011/05/05/access-intimacy-the-missing-link/>
- Minkowski, E. (1970). *Lived time: Phenomenological and psychopathological studies*. Northwestern University Press.
- Neisser, U. (1993). The self perceived. In U. Neisser (Ed.), *The perceived self* (pp. 3–22). Cambridge University Press.
- Nielsen, K. (2022). Affordances and 3E Psychopathology. In Z. Djebbara (Ed.), *Affordances in everyday life* (pp. 149–156). Springer International Publishing.

- Osler, L. (2021). Controlling the noise: A phenomenological account of anorexia nervosa and the threatening body. *Philosophy, Psychiatry, & Psychology: PPP*, 28(1), 41–58. <https://doi.org/10.1353/ppp.2021.0008>
- Osler, L., & Krueger, J. (2022). ProAna worlds: Affectivity and echo chambers online. *Topoi*, 41(5), 883–893. <https://doi.org/10.1007/s11245-021-09785-8>
- Piredda, G. (2020). What is an affective artifact? A further development in situated affectivity. *Phenomenology and the Cognitive Sciences*, 19(3), 549–567. <https://doi.org/10.1007/s11097-019-09628-3>
- Ratcliffe, M. (2012). Varieties of temporal experience in depression. *The Journal of Medicine and Philosophy*, 37(2), 114–138. <https://doi.org/10.1093/jmp/jhs010>
- Ratcliffe, M. (2015). *Experiences of depression: A study in phenomenology*. Oxford University Press.
- Ratcliffe, M., & Broome, M. R. (2022). Beyond “salience” and “affordance”: Understanding anomalous experiences of significant possibilities. In *Salience* (pp. 50–69). Routledge. <https://doi.org/10.4324/9781351202114-4>
- Ridderinkhof, R., Forstmann, K., Wylie, B. U., Burle, B., & van den Wildenberg, W. P. M. (2011). Neurocognitive mechanisms of action control: Resisting the call of the Sirens: Neurocognitive mechanisms of action control. *Cognitive Science*, 2(2), 174–192. <https://doi.org/10.1002/wcs.99>
- Rietveld, E. (2008). Situated normativity: The normative aspect of embodied cognition in unreflective action. *Mind*, 117(468), 973–1001. <https://doi.org/10.1093/mind/fzn050>
- Rietveld, E., & Kiverstein, J. (2014). A rich landscape of affordances. *Ecological Psychology: A Publication of the International Society for Ecological Psychology*, 26(4), 325–352. <https://doi.org/10.1080/10407413.2014.958035>
- Roberts, T., & Osler, L. (2023). Social doubt. *Journal of the American Philosophical Association*, 1–18. <https://doi.org/10.1017/apa.2022.40>
- 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), 1–13. <https://doi.org/10.3389/fnint.2012.00107>
- Rosenberger, R. (2020). On hostile design: Theoretical and empirical prospects. *Urban Studies*, 57(4), 883–893. <https://doi.org/10.1177/0042098019853778>
- Saarinen, J. A. (2020). What can the concept of affective scaffolding do for us? *Philosophical Psychology*, 33(6), 820–839. <https://doi.org/10.1080/09515089.2020.1761542>
- Sass, L. A., & Pienkos, E. (2013a). Space, time, and atmosphere: A comparative phenomenology of Melancholia, Mania, and Schizophrenia, Part II. *Journal of Consciousness Studies*, 20(7–8), 131–152.
- Sass, L. A., & Pienkos, E. (2013b). Varieties of self-experience: A comparative phenomenology of Melancholia, Mania, and Schizophrenia, Part I. *Journal of Consciousness Studies*, 20(7–8), 103–130.
- Scarantino, A. (2003). Affordances explained. *Philosophy of Science*, 70(5), 949–961. <https://doi.org/10.1086/377380>
- Schilbach, L. (2016). Towards a second-person neuropsychiatry. *Philosophical Transactions of the Royal Society of London: Series B, Biological Sciences*, 371(1686), 20150081. <https://doi.org/10.1098/rstb.2015.0081>
- Schwab, S. M., Spencer, C., Carver, N. S., Andrade, V., Dugan, S., Greve, K., & Silva, P. L. (2022). Personal factors understood through the ecological-enactive model of disability and implications for rehabilitation research. *Frontiers in Rehabilitation Sciences*, 3, 954061. <https://doi.org/10.3389/fresc.2022.954061>
- Seamon, D. (2002). *Physical comminglings: Body, habit, and space transformed into place*. Occupation, Participation and Health.

- Seamon, D. (2023). *An Introduction* (1st ed). Routledge.
- Sechehaye, M. (1970). *Autobiography of a schizophrenic girl* (G. Rubin-Rabson, Trans.). New American Library.
- Silverstein, S. M., Demmin, D., & Skodlar, B. (2017). Space and objects: On the phenomenology and cognitive neuroscience of anomalous perception in Schizophrenia (Ancillary Article to EAWE Domain 1). *Psychopathology*, 50(1), 60–67. <https://doi.org/10.1159/000452493>
- Slaby, J., Paskaleva, A., & Stephan, A. (2013). Enactive emotion and impaired agency in depression. *Journal of Consciousness Studies*, 20(7–8), 33–55.
- Stanghellini, G., & Rosfort, R. (2013). *Emotions and personhood: Exploring fragility - making sense of vulnerability*. OUP Oxford. <https://doi.org/10.1093/med/9780199660575.001.0001>
- Valentine, D. (2020). Shifting the weight of inaccessibility: Access intimacy as a critical phenomenological ethos. *Journal of Critical Phenomenology*, 3(2), 76–94. <https://doi.org/10.5399/PJCP.v3i2.9>
- Walker, N. (2021). *Neuroqueer heresies: Notes on the neurodiversity paradigm, autistic empowerment, and postnormal possibilities*. Autonomous Press.
- Watsuji, T. (1996). *Watsuji Tetsuro's Rinrigaku: Ethics in Japan* (S. Yamamoto & R. E. Carter, Trans.). SUNY Press.