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Empathy, Like-mindedness, and Autism

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Abstract

In this paper I examine what autism can teach us about the role of like-mindedness in the achieving of interpersonal understanding. I explain how recent work on affective, sensory, perceptual, and cognitive atypicalities in people with autism underscores forms of like-mindedness that are largely neglected in contemporary discussions of interpersonal understanding. Autists and non-autists may have sensory, perceptual, and movement differences that make for pervasive differences in their perspectives on and ways of being in both the physical and social world. Central to the paper is the idea that the forms of *un*like-mindedness among autists and non-autists revealed by this research present the very live possibility that individuals without autism are unable to understand some autistic subjects as acting for reasons, or that if such understanding is available, it is available only through means other than those standardly emphasized in dominant theories of interpersonal understanding. I argue that this idea has significance for the case of autism itself as well as wider theoretical and practical importance for the study of interpersonal understanding.

Keywords: interpersonal understanding, autism, agency, simulation

1. Introduction

In many contexts of inquiry and in many traditions in the study of interpersonal understanding, one encounters the idea that the extent, and even the very possibility, of understanding, explanation, and normative evaluation of human behavior depends on a degree of like-mindedness. The idea is found not only among philosophers (e.g., Davidson and Wittgenstein) but in the two dominant approaches to understanding the nature of social cognition: theory-theory, and simulation theory. Although theories vary on a number of dimensions in the kinds of likenesses and degrees of likeness required for interpersonal understanding, like-mindedness is often characterized in terms of shared beliefs, desires, values, and commitments between individuals or groups. In this paper I explain how recent work on affective, sensory, perceptual, and cognitive atypicalities in people with autism[1] underscores forms of like-mindedness (e.g., commonalities in behavioral expression, sensitivity to external stimuli, and perceptual processing) that are largely neglected in contemporary discussions of interpersonal understanding. Autists and non-autists may have sensory, perceptual, and

[1] Some people with autism prefer "person with autism" because it puts the person before the autism. Others prefer "autistic person" to signal that autism is inseparable from the person (Sinclair 1999). I will use both kinds of language to acknowledge the different ways individuals may choose to talk about themselves. I will also use "non-autist" and "typical individual" interchangeably.

movement differences that make for pervasive differences in their perspectives on and ways of being in both the physical and social world. Central to the paper is the idea that the forms of *un*like-mindedness among autists and non-autists revealed by this research present the very live possibility that individuals without autism are unable to understand some autistic subjects as acting for reasons, or that if such understanding is available, it is available only through means other than those standardly emphasized in dominant theories of interpersonal understanding.

This idea has critical importance in a variety of ways. It has significance for the case of autism itself as we will see, both for our understanding of autists, and for methodology in scientific and philosophical investigations of autism. It also calls us to redress a systemic problem of theoretical and practical importance: the tendency of philosophers and other theorists to conceptualize and investigate barriers to interpersonal understanding between autists and non-autists almost exclusively in terms of autists' limitations. Scant attention is paid to identifying and articulating limits on non-autists' abilities to understand autists.[2] My investigative focus, by contrast, is *non-autists'* limitations. The forms of unlike-mindedness among autists and non-autists revealed by autism research also raise more general questions. Do the conclusions from the case of autism apply more widely, to other forms of human variation? What are the practical and theoretical dangers of limits on understanding unlike-minded others? And how should the issues brought to light by reflection on the autism case affect future inquiry into other sorts of unlike-mindedness and suitable notions of like-mindedness?

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[2] Hacking's essays (2009a, 2009b, 2009c) are important exceptions. See also Dinishak and Akhtar (2013) for a discussion of how the common uses of the metaphor 'mindblindness' in portrayals of autism contribute to this one-sidedness.

Here is the structure of the paper. In Section 2, I briefly elucidate the influential idea that interpersonal understanding depends on like-mindedness. In Section 3, I present recent empirical work concerning some potentially crucial differences between autists and non-autists. In Section 4, I investigate the possibility that there are greater limitations than many have realized for a non-autist understanding an autist. I use simulation theory as a lens to explore these potential challenges and focus in particular on the understanding of reasons for action. In Sections 5 and 6, I examine the implications of this possibility. In Section 5 I raise some pressing questions about methodology in the study of autism as well as issues that our culture more broadly needs to confront in re-thinking its engagement with autists. Finally, in Section 6, I briefly reflect on some wider issues brought out by our discussion concerning suitable notions of like-mindedness, theories of interpersonal understanding more generally, and the value of epistemic humility.

2. Interpersonal Understanding and Like-Mindedness

Interpersonal understanding admits of kinds, senses, levels, degrees, and stages. People have a host of context-sensitive capacities to achieve both basic and sophisticated forms of interpersonal understanding. Some of these capacities are available to introspective awareness and some are not. Some are exercised automatically and without conscious effort while others involve conscious, effortful construction. A central component of interpersonal understanding is "mentalizing" or "mindreading," the ability to attribute mental states to others. The two dominant approaches to explaining mindreading are called "theory-theory" (Churchland 1979; Dennett 1987; Gopnik and Meltzoff 1997) and "simulation theory" (Davies 1994; Goldman

2006; Gordon 1986; Heal 1998).[3] Both turn on the idea that some kind and degree of like-mindedness is needed to successfully exercise one's mindreading capacities.

Theory-theorists explain the human capacity to attribute mental states in terms of the possession and use of a "theory of mind" that captures generalizations about how humans' mental states and behaviors are usually connected. This theory allows one to infer mental states from observable behavior. For example, if one observes an individual hopping around, clutching her or his foot, and yelling, "Ow!" one can use one's behavioral observations of the individual and generalizations about human behavior, including relevant psycho-behavioral correlations, to infer that the individual one is observing is in pain.

Like-mindedness plays a more explicit central role in simulation theory. Simulation is an egocentric method. One uses one's own mind as a model in the simulation of the other's mind. To elaborate on the role of like-mindedness in simulation theory, I will focus on Stueber's (2006)

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[3] The theory-theory and simulation theory were, for some time, considered the *only* two approaches and were treated as mutually exclusive. There is a growing consensus that some combination of theoretical approaches will be needed to explain mindreading since many now think mindreading better understood as a host of interrelated processes and capacities rather than a single thing. Likewise, hybrids of theory-theory and simulation theory and a variety of "third" alternatives to these dominant approaches are currently being developed. Accounts inspired by the phenomenological and hermeneutic traditions have been particularly generative. See Gallagher and Hutto (2008); Hutto (2008); Zahavi (2001; 2010); Zahavi and Overgaard (2012), for example.

and Goldman's (2011) accounts of empathy or simulation.[4] Both Goldman and Stueber distinguish two kinds of empathy or simulation. Stueber (2006) characterizes basic empathy as a non-reflective form of understanding supported by mirror neurons that enables understanding of others' goal-directed behavior and emotional states. Basic empathy is a low-level intelligibility of others' feelings and actions. Reenactive empathy, the second kind of empathy, is a cognitively complex form of "inner imitation" that enables a more sophisticated understanding of the intelligibility of other agents' actions in complex social contexts. In reenactive empathy, "[w]e are trying to understand agents as being engaged with and as responding to demands of an environment-as-they-conceive-of-it" (Stueber 2006, 201). When reenactive empathy is successful one comes to understand others' reasons for action and feeling, their conceptions of situations and stances toward the environment. This form of empathy is reenactive in that it requires imaginative perspective-taking. The interpreter simulates the mind of the interpretee. That is, one takes an "as-if" stance towards the interpretee and recreates the interpretee's thought processes by imagining that one has the same desires, beliefs, goals, conception of the situation, and so forth that the interpretee has and then reasons about what one would do and how one

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[4] "Empathy" and "simulation" are used in a great variety of ways in accounts of interpersonal understanding and social cognition. As Goldman observes, "the term 'empathy'…does not mean the same thing in every mouth. Nor does there seem to be a single, unified phenomenon that uniquely deserves the label" (2011, 31). One could say the same for "simulation." In contemporary philosophical discussions the two notions are often equated. For the purposes of this paper I follow Stueber and Goldman and use "empathy" and "simulation" interchangeably.

would feel in that situation. Similarly, Goldman (2011) distinguishes two "routes" to empathy. The mirroring route is a low-level, largely automatic, form of "mental mimicry" of action-planning, sensations (e.g., of touch and pain) and emotions (e.g., disgust) that is prompted by observation. Typically this form of mirroring occurs below the threshold of conscious experience. Reconstructive empathy is a high-level, conscious and more effortful route. One adopts the perspective of the empathetic target and reflects on the person's situation, imaginatively constructs how things are, were, or will be "playing out" for the person, and imagines how one would feel and what one would do if one were in that person's shoes. Though reenactment may be effortful in some cases, ordinarily, in a great many cases, it is relatively effortless. We do not hesitate to accept the explanation of why someone stopped at a bar in terms of his desire to drink a beer and his belief that bars sell beer as perfectly intelligible reasons for his behavior. We understand how those considerations can be reenacted in our own minds and how they speak in favor of his actions. The ease with which we accept this explanation as rendering his action intelligible may obscure the fact that our finding the behavior intelligible relies on an implicit assumption of like-mindedness. That is, we assume that he shares relevant beliefs, desires, values, and commitments. If we instead assume, for example, that he believes that drinking one beer has severe negative consequences for one's health, we would not be able to make sense of his action. Rather, we would think that if one has such a belief, visiting a bar is *not* the thing to do.

In short, like-mindedness enables and constrains empathy and simulation.[5] High-level simulation involves using oneself as a model to explain, predict, and understand others' mental states and how these states and other aspects of their psychology contribute to their actions (past, present, and future). Matching between the empathizer's and the target's cognitive systems is required for successful simulation. The more like-minded the empathizer and the target, the more successful empathy is as a method of achieving interpersonal understanding. Being like-minded and *seeing* the other person *as* like-minded facilitates successful simulation. Recognition of like-mindedness helps us determine which of our beliefs, desires, commitments, values, and so forth to include in the simulation and which to quarantine. When the empathizer and the target are like-minded and the empathizer perceives them to be such, the empathizer can rely more on egocentric defaults in the initial stage of simulation. Fewer adjustments (i.e., supplementing individuating information and quarantining one's own genuine states) to the egocentric starting point need to be made for successful simulation.

3. Unlike-Mindedness: Recent Work on Autists and Non-Autists

Empirical findings on and first-hand descriptions of atypical sensory, movement, and perceptual features associated with autism show significant ways in which autists and typical individuals are not like-minded. The notion of like-mindedness used in recent discussions of simulation (i.e., shared beliefs, values, and commitments) does not take into account these more

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[5] In addition, it may be that empathy is a mechanism that enables us to *become* more like-minded, in cases where empathizing results in the empathizer "feeling with" the target. See Sorensen (1998) for discussion.

fundamental forms of unlike-mindedness although, as we will see in Section 4, they are relevant to assessing whether and how simulation is a route to interpersonal understanding between those who are unlike-minded in these ways.

Sensory, Perceptual, and Movement Differences Associated with Autism

Autism is characterized as a neuro-developmental condition and is diagnosed via behavioral criteria for identifying symptoms listed in the *DSM*-V (*Diagnostic and Statistical Manual of Mental Disorders*) entry for autism spectrum disorder: difficulties with social interaction (e.g., little or no eye contact), linguistic challenges (e.g., misunderstanding pragmatic uses of language), and restrictive, repetitive or stereotyped activities (e.g., spinning objects). Research on autism has exploded in recent decades, but there are few uncontested facts about the condition. Although we have some clues about possible environmental triggers and the biological underpinnings of autism, its causes are unknown. Moreover, the cognitive and behavioral phenotypes of autism are still works in progress.

Data from autobiographical accounts of autists and empirical research studies suggest that many autists experience a wide range of sensory, movement, perceptual, and cognitive differences that are multifarious and sometimes idiosyncratic. Many autists use the notion of neurodiversity to capture fundamental differences in their ways of being in the world by comparison with 'neurotypicals'. Neurodiversity is the provocative idea that some forms of atypical neurological 'wiring' in humans, such as autism, attention deficit hyperactivity disorder, Tourette's Syndrome, and schizophrenia, may be positive variations (Blume 1998). Proponents of the neurodiversity movement, as it applies to autism, advance the idea that autism (in at least some of its manifestations) is an ineliminable aspect of an autistic person's identity, a way of being that should be respected and supported, even celebrated, rather than eliminated.

Below I briefly describe some of the reported differences in sensory sensitivities, movement, perceptual processing, and proprioception. Before I do so a few cautions are in order. First, the kinds of differences I single out for discussion are only a sampling of those reported. Second, I am not claiming all and only people with autism experience these kinds of differences. A related third point is that autism is a highly heterogeneous condition that manifests in diverse ways across individuals and within the same individual. The heterogeneity of autism raises serious doubts about whether autism spectrum disorder is a valid, unitary diagnostic category. It is also unclear how far one can generalize from particular personal accounts and research studies of differences associated with autism. Third, the impact of these differences on autists' development and everyday social functioning are not well understood.

Sensory Sensitivities

Many autists experience either increased (hyper-) or decreased (hypo-) sensitivity to incoming stimuli. These sensitivities have been reported across sensory modalities (i.e., vision, touch, taste, hearing, smell), are often idiosyncratic, can vary from hypo- to hyper-sensitivity within the same individual (Baranek et al. 2014), and may result in reacting differently to the same stimuli. In the case of hypersensitivities, Bogdashina suggests that some autists are able to perceive stimuli that others cannot: "For example, a child might hear (and be disturbed by) the sound of a microwave oven working in the next room" (2010, 177). Matt, a person with autism, experiences pain and anxiety in reaction to certain sounds. He reports, "My mom took me through a drive-thru carwash once when I was in grade school and I was terrified. The brushes sounded to me like the sound of intense machine gunfire, but I could not communicate well enough to explain why I got so upset" (quoted in Robledo, Donnellan, Strandt-Conroy 2012, 4). To take another example, for some autists a particular food smell, taste, or texture, or clothing

texture can be experienced as intensely painful or pleasurable. A hyposensitivity that is especially troubling to parents of children with autism is that their children may experience a decreased sensitivity to pain, which can prove dangerous if the child is injured. One mother explains how her autistic daughter extracted four of her front teeth over the course of two weeks: "[I could] say with confidence that at least three of them were, at most, only slightly loose…She wouldn't make a sound until she had excitedly announced what she had done" (Sheahan and DeOrnellas 2011, 92).

Proprioception

Proprioception is a form of body awareness that helps one determine the movement and position of one's body in space without the aid of sight. Autist Dawn Prince-Hughes reports that she would "walk through" or "look through" other people because of her "unawareness of where [her] body began and ended" (2004, 29). Compromised proprioception can lead to difficulties regulating movements that are typically automatic and effortless. For example, if autists with challenges in this area are asked to raise their hands, they may need to check that their hands are raised because they cannot simply feel that they are raised. Also, they may be physically unaware of their own facial expressions. An autist with proprioceptive difficulties may stand "too close" to another person, rock back and forth, or lean on furniture. Some autists report that flapping their hands helps them locate their bodies in space. Tito Mukhopadhyay, an autist with minimal speech who communicates through typing, observes that difficulties with body awareness contributed to his difficulty pointing: "…I had very little sensation of my body. So to learn the technique of moving my right hand needed control over the ball and socket joint of the shoulder and then the hinge joint of my elbow and finally fold the other fingers and keep the

point finger out" (Quoted in Biklen 2005, 133). Some autists describe themselves as feeling alienated from their own bodies. Take Donna Williams, for example:

> I was somewhere between three and five when my body called to me . . . [I]t started to make its presence felt as though nagging me to listen to it and respond to it. At first, I tuned out this foreign invasion as was natural and instinctive to do with things that gave the feel of robbing one of control. Later, I tried to escape the sensed entrapment of physical connectedness, first spiritually by getting out of it and later physically by trying to pull it off from its suffocation of the me inside, slapping at it, punching it and later trying —physically—to run from it but the damn thing just came after me. As far as I was concerned, my body was welcome as a sensory tool, but as a body with something of a competing will of its own, it was like a leech that happened to be there by coincidence but wouldn't take the hint and couldn't be got rid of. It was my first known enemy. (Williams 1999, 53; quoted in McGeer 2001, 125)

Starting, Stopping, and Combining Movements

Some autists experience difficulties starting, stopping, switching, or combining motor movements that are not immediately recognizable to an observer. For example, they may walk away in the middle of a conversation, sit until prompted to get up, touch objects repeatedly, or turn away when they are called. Although these movements are often non-volitional, observers commonly interpret them as "autistic behaviors" that are both volitional and meaningless or as communicative acts that convey a desire to avoid interaction, or some combination of these interpretations (Donnellan, Hill, and Leary 2012). Charles Martel Hale Jr., an autistic adult, describes his frustration when he is unable to move or respond in an appropriate manner: "…[S]ometimes I know that I am not smiling but may be even frowning. This causes me a great deal of pain and makes me look as though I am not comprehending when, in fact, I am trying to respond in an appropriate manner" (Hale and Hale 1999, 32; quoted in Donnellan, Leary, and Robledo 2006).

Perceptual Processing

Many research studies have demonstrated that autists' performance in some perceptual domains is superior to comparison groups, especially when the perceptual task requires attention to details, parts, specific features, and local information. For example, autists consistently perform at a level superior to non-autists on visual search (Joseph et al. 2009), the Block Design test (Shah and Frith 1993), and Embedded Figures tasks (Mottron et al. 2006). Autists are also less susceptible to some kinds of visual illusions (Happé 1996). Autists' superior performance on these tasks is thought to be due to superior local processing. While typical individuals focus on global information by default, autists appear to focus on local information by default and do not automatically attend to and understand the gestalt or "gist" of what they perceive. It is unclear whether autists' strength in local processing comes at the cost of a weakness in global processing. Some theorists hypothesize that autists are just as capable of global processing as comparison groups, but that it is not their default or preferred processing style.[6]

The wide array of sensory, movement, and perceptual differences reported in autism suggest that how autists perceive and sense the world may differ, but also, even more fundamentally, *what* they perceive and sense may differ. What they look at, how they move, what they orient to and attend to, and how they respond to the same kinds of stimuli non-autists

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[6] See Koldewyn et al. (2013) for discussion. Similarly, while theory-theorists hypothesize that autists have deficits in reasoning about other minds, and simulationists hypothesize that autists have deficits in perspective-taking, imagination, and pretense, social motivation theorists hypothesize that autists' social difficulties arise from a lack of motivation to connect with the minds of others rather than from an inability to do so (Epley, Schroeder, and Waytz. 2013; Chevallier et al. 2012).

encounter make for experiences, perspectives, and ways of being in the world that are atypical and unfamiliar to those without these differences.

4. Unlike-Mindedness and Understanding

It is well known that social interaction between autists and non-autists is compromised. A guiding question of scientific and philosophical research on autists' social difficulties is how and to what extent autists understand others' mental states. Standard accounts of autism explain autists' difficulties in social interaction by attributing to autists deficiencies in social cognition. For example, theory-theorists hypothesize that autists have a deficit in "theory of mind." Simulationists hypothesize that autists have impairments in pretense, imagination, imitation, and perspective-taking. Both approaches present autism as an illustrative case of humans who lack the ability to empathize. Limits on interpersonal understanding between autists and non-autists has been conceptualized and investigated almost exclusively in terms of autists' limitations. Scant attention is paid to identifying and articulating limits on non-autists' abilities to understand autists. For example, although Myers, Baron-Cohen, and Wheelwright (2004) concede that, "[a]utistics may lack a non autistic theory of mind. Just as non autistics may lack an autistic theory of mind. Each is mindblind to the other" (57, footnote 17), this point is relegated to a footnote. Likewise, Kennett (2011) suggests in passing that failure of reenactive empathy between autists and non-autists "goes both ways" (191, footnote 10). My investigative focus, by contrast with standard accounts of compromised interpersonal understanding between autists and non-autists, is characterizing *non-autists'* limitations.

Here I investigate the possibility that there are greater limitations than many have realized for a non-autist understanding an autist. I claim that the forms of unlike-mindedness

among autists and non-autists revealed by this research present the very live possibility that there are actions and reasons of autistic subjects that are unavailable to autists—that non-autists are unable to understand autistic subjects' reasons for acting or even to understand autists as acting for reasons at all. I look in particular at whether non-autists can grasp autists' individual agency by way of simulation, raising questions for the availability of autists' reasons and actions to non-autists. I leave open the possibility that there are other routes through which non-autists can grasp autists' individual agency.

Understanding an Agent's Reasons for Acting by Way of Simulation

Stueber (2006; 2012a; 2012b) argues that reenactive empathy plays an ineliminable epistemic role in understanding individual agency, which is holistic and context dependent. To grasp an individual's reasons for acting, one needs "inside" understanding of how the individual agent's specific beliefs and desires are part of the reasons that motivate that agent to act in that specific context, on that particular occasion. Simulation delivers this inside understanding. It renders another person's actions intelligible from an engaged, personal perspective. During simulation one imagines what one would believe, want, feel, think in those circumstances, what one would do in that situation given those mental states. By putting oneself in the other's shoes, imagining the particular situation the other faces, and reenacting her or his thoughts in one's own mind, with an eye to understanding how the other's desires and beliefs on that occasion "fit in with an agent's other beliefs, desires, plans of actions, values and rules of conduct to which the agent is committed" (Stueber 2012b 69), one comes to appreciate how the agent's action is rationally compelling in that situation. Stueber (2006) illustrates understanding rational agents in their individuality by analyzing an example in Goldman ([1989]1995). Imagine that somebody just missed a train. It left a minute before she reached the platform. Compare this with

somebody who misses a train by two hours. We intuitively understand that the person who misses the train by a minute is more annoyed and why this response is appropriate in the situation. Through reenactive empathy we grasp that the person who just missed the train has more reason to be annoyed because if she had just run a little faster or hadn't stopped to buy a newspaper on the way she probably would have made it on time.

Limits on Simulation Simulationists Discuss

Simulation theorists suggest that in ordinary circumstances even high-level simulation proceeds almost unnoticeably and automatically. However, high-level simulation can be effortful, deliberate, and challenging as an interpretive strategy in some cases. Attempts at reenactive empathy can fail. Stueber (2006) describes "twin dangers" that one encounters during the matching phase of simulation: projectionism and non-projectionism. Projectionism involves failing to recognize the relevant differences between oneself and the target, which leads one to see the target as too much like oneself and thus to quarantine failure, where one is "merely projecting one's own centrally held beliefs and attitudes onto the other person" (Stueber 2006, 205)[7]. For example, one may fail to disregard one's belief that drinking beer is morally wrong when interpreting an individual's beer-drinking behavior even though one knows that the individual one is trying to explain does not hold this belief. Non-projectionism is the opposite. It involves conceiving of the other person as not being sufficiently like oneself because one is influenced by preconceptions and prejudices about other people and cultures as foreign. For

[7] Goldman (2011) identifies two similar kinds of errors in high-level simulation: omission and commission.

example, one conceives of the target as belonging to a more primitive culture and thereby incapable of certain ways of thinking (Stueber 2006, 205).

Although these obstacles to successful simulation might occur in everyday situations, we are much more susceptible to them when interpreting actions in unfamiliar contexts that are not sufficiently articulated, for example, in cases where there is great historical or cultural distance between the interpreter and the interpretee.[8] In such cases the interpreter must supplement the initial matching phase of simulation with knowledge of historical, cultural, and personal differences that influence the target's "inferential and argumentative practices, their values, their emotional attunement to the world, and so on" (Stueber 2011, 170). This information allows interpreters to determine which pretend-beliefs and desires to add and which of their own genuine states to quarantine from the simulation in order to successfully take the perspective of the target.

In addition to knowledge of historical, cultural, and personal differences, interpreters may need to draw on psychological research to supplement simulation, for example, when we are trying to understand individuals at different developmental stages. Stueber (2011) considers how this applies to understanding teenagers. Teenagers tend to find their parents' advice and commonly accepted rules of conduct less salient than their peers' opinions. To understand them,

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[8] Gallagher argues that simulationists face what he calls the diversity problem even in our own culture because simulation depends specifically and narrowly on one's own first-person experience: "If we depend on our own prior experience in order to sense what the other person may be thinking in a particular situation, the question is whether we really attain an understanding of the other or are merely projecting ourselves" (2012, 370).

one must quarantine "considerations that normal adults would find salient" (171) and focus one's simulation on what we know teenagers might find salient (e.g., peer opinions).

The limits on empathy sketched here suggest that simulation becomes more difficult when the empathizer and target are not like-minded in the relevant ways. The more dissimilar the empathizer's and target's beliefs, values, commitments, and so forth, the more challenging and effortful the imaginative reconstruction, the less one is able to use one's own mind as a model without substantial "retooling" of one's own cognitive system, the more quarantining of one's own beliefs, desires, commitments, and values is required, and the more "opportunities" there are for error and bias during the simulation process.

Additional Potential Limits on Simulating Autists' Minds

The examples simulationists cite to illustrate impediments to successful simulation involve recognizing and adjusting for dissimilarities in beliefs, values, and commitments. However, as we saw in Section 3, reflection on sensory, movement, and perceptual differences associated with autism there are other forms of unlike-mindedness among autists and non-autists. What other limitations on non-autists' empathetic engagement with autists does this expanded notion of unlike-mindedness bring into view? I suggest here that there may be greater limitations on non-autists' capacity to simulate autists' minds than many have realized. In particular, I argue that there is the very live possibility that autists' reasons for acting may be unavailable to non-autists, by way of simulation. If unlike-mindedness between autists and non-autists means that non-autists cannot simulate autists' minds and simulation is required for understanding individual agency, then non-autists cannot see autists as acting for reasons. Non-autists may be unable to "see" autists as engaging in intentional action.

Being labeled autistic. I begin by describing a potential error in simulating autists that warrants further investigation, although I can only note it in passing here. It concerns the possibility that interpreting a person through the lens of a diagnostic label undermines that person's agency. As one woman diagnosed with borderline personality disorder remarked, "The minute I got that diagnosis people stopped treating me as though what I was doing had a reason" (Herman 1992, 128; quoted in Ussher 2011, 74). The kind of danger brought out by this woman's comment is that an individual's thinkings, sayings, doings, feelings, and experiences may be understood merely as meaningless symptoms of her psychiatric condition if viewed through the lens of a diagnosis. This danger is more general than those connected with specific stereotypes and stigmas about particular conditions and is not confined to contexts with non-expert interpreters. How medical professionals conceptualize the relation between bodily and mental illness impacts how they view the sayings, doings, feelings, and experiences of people with psychiatric diagnoses and how they intervene on mental illness. The anthropologist, Tanya Luhrmann (2012) elucidates this idea in her reflections on the biomedical view of hearing voices (i.e., auditory hallucinations):

> In the new biological psychiatry…voices were symptoms of psychotic illness in the same way that a sore throat was a symptom of the flu. Sore throats didn't "mean": they were signs of a problem that had to be treated and resolved. So, too, voices…In biomedical psychiatry, mental health professionals ask whether the patient hears voices, not what the voices say. The goal is to get rid of the voices, like getting rid of a fever (52).

Turning back to autism, if an individual is already understood as autistic one may perceive her or his behaviors as mere meaningless symptoms of a disorder. This rendering of their behaviors would make it difficult to place autists in the "space of reasons" when one perceives and interprets them. For example, autists' hand-flapping is often interpreted as a meaningless

symptom to be eliminated through behavioral interventions rather than as an action performed for a reason.

Köhler's phenomena and autism. The Gestalt psychologist, Wolfgang Köhler, provides an illuminating description of a basic feature of our relations with others that brings us closer to consideration of how forms of unlike-mindedness rooted in sensory, movement, and perceptual differences may threaten non-autists' capacities to "see" some features of autists' mentality or normativity: "[N]ot only the so-called expressive movements but also the practical behavior of human beings is a good picture of their inner life, in a great many cases" (Köhler 1929, 250). Ordinarily, in a variety of situations in everyday life, human behavior "pictures" human thoughts, feelings, and intentions such that one can perceive what another person is thinking, feeling, and intending by attending to the ways those aspects of the other's mental life are expressed in her or his facial expressions, bodily movements, postures, and gestures. Köhler called these phenomena of understanding one another non-theoretically and non-inferentially the "common property and practice of mankind" (1929, 266). To illustrate this, Köhler describes a supervisor who is friendly with his subordinates but must deliver an unfriendly command. One can see the supervisor's hesitation to give the command in the supervisor's expressive behavior (1929, 234).

Importantly, as Hacking observes, Köhler's phenomena are *not* the common property of and practice between some autists and non-autists:

> [M]ost people cannot see, *via* the behavior of severely autistic people, what they feel, want or are thinking. Even more disturbing is an inability to see what they are doing: their intentions make no sense. With the severely autistic, it may seem as if they do not even *have* many intentions. They are taken to be…thin children who grow up to be thin men and women, lacking a thick emotional life. Or so it has seemed to most people, including many parents and many clinicians. (Hacking 2009a, 1471)

The lack of Köhler's phenomena between autists and non-autists contributes to a lack of common norms or standards for rendering autists' behavior intelligible to non-autists. As such, there are serious dangers of using a framework of interpretation that is built on the presence of Köhler's phenomena when trying to understand autists' behavior. Using behavioral norms of typical individuals as a standard by which to determine whether and how autists' behavior is meaningful, "makes sense" or is a reasonable response or intelligible expression may prompt one to interpret autists' behavior as meaningless, senseless, or unreasonable. This would be to interpret autists as if their movements and behavior are meaningful only when the meanings are readily understood by non-autists. As one autist aptly puts it:

> We move, we act…but our movements and acts have no recognizable goal, and thus people assume we lack intelligence, and lack all but the most rudimentary stages of consciousness. Our emotional responses are similarly discarded as meaningless, because we do not react in the same way most people do to the same things. Things in the environment that most people might not even notice scare us or irritate us, but because the stressors don't make it onto most people's radar, we are assumed to be throwing a fit for no reason. So our movements, our behaviors, and even our emotional responses and attempts to communicate are discarded as meaningless and we are believed not to be conscious or intelligent to the same degree that most people are. (Lindsay 2009, n.p.)

The meanings of autists' behaviors are often not apparent to non-autists, but from this fact it does not follow that their behaviors are meaningless.

Fixed limits on simulating autists' minds? In Section 4 we saw that to correct for dissimilarities in beliefs, desires, commitments, and values between the interpreter and interpretee, the interpret must "retool" her cognitive system to better match that of the interpretee. But can quarantining one's own genuine mental states during simulation correct for forms of unlike-mindedness resulting from the sensory, perceptual, and movement differences described above? One aspect of the question is the extent to which non-autists can quarantine the

relevant "parts" of their cognitive systems that clash with autists'. To better appreciate this aspect, consider the likely far-reaching effects of sensory, perceptual, and movement differences of the kind associated with autism. Possibilities for action in a particular physical or social environment depend on the information the individual pick up from her or his environment. And this, in turn, depends on the capacities and characteristics of the individual and her or his interactions with the environment (Hellendoorn 2014). As Donnellan, Hill, and Leary emphasize, those with sensory, perceptual and movement atypicalities have a different developmental trajectory than typical individuals, which results in pervasive effects on the individual's experiences and interactions:

> In the course of development, if individuals move and respond in idiosyncratic ways from infancy, they will experience all interactions within a unique frame that most certainly differs from that which is called typical. The cumulative effect of such interactions will be one in which all aspects of relationships, including how to establish and maintain them, may be markedly skewed from the broader cultural consensus and expected rules of how relationships work. (Donnellan, Hill, and Leary 2012, 3)

On this line of thought, there are pervasive differences in how autists become minded over the course of their development by comparison with typically-developing individuals. Suppose that one tries, through simulation, to understand the thoughts, feelings, and actions of an individual who has developed along this atypical trajectory. To achieve isomorphism during the matching phase of simulation one would have to somehow inhibit and suppress pervasive aspects of one's perspective on the world, including one's basic orientation towards one's physical and social environment and how one responds and moves in such environments. However, quarantining seems to be a meager tool for the task. It is doubtful that these forms of different-mindedness are the kinds that can be corrected for through the piecemeal addition and subtraction of particular beliefs, desires, commitments, and values. Even if these differences are

the kinds that can be addressed by quarantining aspects of one's cognitive system that clash with theirs in relevant ways, one might still wonder whether enough or the right kind of like-mindedness is "left" after quarantining to use oneself as a model and imaginatively take the perspective of the unlike-minded other so that one's simulation renders an autist's actions intelligible and rationally compelling to oneself.

Now the following question arises: What would be the significance of the situation in which non-autists cannot understand autists' reasons for acting by way of simulation? That depends in part on whether there are other ways than by simulation that non-autists' can grasp autists' individual agency.[9] What would simulationists say? Simulationists claim that simulation is our default method of understanding other minds, but, it would seem, on their understanding of 'default method', simulation is not all there is to social cognition. It is neither an exhaustive nor an exclusive method. Rather, to call simulation the default is to say that it is typical individuals'

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[9] A related issue is whether it follows from the impossibility of understanding some mental features of autists by way of simulation that non-autists could not acquire some kind or degree of experiential, "inside" understanding of said features by some other route. That would depend on whether simulationists would say that simulation is the only route to experiential, "inside" understanding. If so, then on this line of reasoning it seems that some mental features of autists would be un-understandable from an engaged, personal perspective, a perspective whose value (e.g., epistemic, pragmatic, affective) many theorists of social cognition take to differ from that of more detached stances, such as a third-person, observational stance.

go-to, spontaneous method (Goldman and Shanton in press). When it comes to understanding rational agents in their individuality, however, Stueber (2006; 2012a; 2012b) makes the strong claim that we can grasp individual agency *only* through reenactive empathy.

Suppose, then, that non-autists cannot understand autists' individual agency by way of simulation. Could other accounts of social cognition accommodate such understanding, given these forms of unlike-mindedness among autists and non-autists? Most theories of interpersonal understanding would seem to depend on the condition of like-mindedness. Think of Davidson's (1973) radical interpretation and principle of charity. Davidson claims that interpretation, of which mental state attribution is a part, is only possible when much is shared between ourselves and those we wish to interpret. For example, suppose that my friend believes that she has arthritis in her hands because they are swollen. To attribute this belief to her, she and I need to share many other beliefs, such as that arthritis is an ailment that occurs in humans, that swelling is a symptom of arthritis, that arthritis can develop in one's hands, and so on. Or recall Wittgenstein (1958; [1953] 2009) on a background of typical circumstances, shared reactions to training, and shared affinities and behaviors as preconditions for language-games. Still, it would be premature to say there are not or could not be other such accounts. But until we know more it would remain a live possibility that there may be mental features of autists that non-autists cannot understand.

5. Methodological Consequences

What is the significance of the case in which there are some mental features of autists (*e.g.*, their reasons for acting) that non-autists could not understand by any means? A wide variety of interrelated questions arise: How should this possibility affect how we proceed to understand autists? In particular, how should we regard the possibility that there is more

mentality and normativity than we "see" in autists? What are some of the pernicious consequences of concluding there is no mentality/normativity when there is? What are some of the ways we could respond to limits on the understandability of autists' differences? What are some accompanying dangers of these possible responses? I cannot address all these questions here. I focus on characterizing some pertinent dangers regarding how we might respond to this possibility.

One response to the situation where there are some mental features of autists that non-autists could not understand by any means is to be *too* sensitive to their differences, to engage in pernicious forms of "othering" the Other. The concept of othering is used in different ways in a variety of contexts (e.g., anthropology, critical race studies, disability studies, feminist studies, education). I use "othering" to characterize a process involving an acknowledgement of an individual's or group's differences that differentiates those who are othered but mainly in harmful ways. Instead of embracing (or at least tolerating) those who are deemed different, othering is a strategy of amplifying or emphasizing the differences in representations of the individual or group to the exclusion of similarities and conceiving of the differences negatively—as deficiencies in features or traits deemed desirable or even essential to being human. The Other's differences are highly visible but are visible only as a problem. Othering, in this sense, can lead to a form of dehumanization whereby the Other is denied knowledge, rationality, intentionality, competence, subjectivity, and voice. For example, it is not uncommon

for autists to be depicted in scientific and cultural representations as utterly strange, robotic or alien, or as people whose real selves are missing, hidden, or "kidnapped" by autism.[10]

Dehumanization has many pernicious consequences. It is used to justify the oppression, exclusion, and marginalization of those deemed the Other. We observe these harmful effects time and time again within and across cultures and historical eras. Recent research in social psychology (Epley, Schroeder, and Waytz 2013; Waytz , Schroeder, and Epley 2014) suggests that there are also more moderate, subtle, and passive forms of dehumanization with less obvious effects. Dehumanization may manifest at the bodily interaction level by, for example, by compromising one's ability to perceive dehumanized others' behavior as expressive of their affective states and one's ability to intuitively grasp their intentions and actions (Gallagher and Varga 2014). These failings may lead the interpreter to mistakenly conclude that there is no mentality or normativity when there is.

Another response to the situation where there are some mental features of autists that non-autists could not understand by any means is to ignore or to seek to obviate the differences associated with autists' forms of unlike-mindedness. Medina's (2013) reflections on meta-attitudes that contribute to the erasure of racial differences help characterize this phenomenon: "[B]lindness to differences is often rooted in a blinding meta-attitude according to which others appear under one's radar as one's peers only when their differences are erased or rendered inconsequential, that is, only when they are seen as being *like oneself*" (2013, 151). Simulation

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[10] See Broderick and Ne'eman 2008; Duffy and Dorner 2011; Hacking 2009a, 2009b, 2009c; Sarrett 2011; Smukler 2005 for insightful analyses of these and other metaphors for autism.

and other routes to interpersonal understanding whose success depends on the leveling of differences between the interpreter and interpretee run into this danger. Simulation, as we have seen, is an egocentric method that takes as one's starting point one's own first-person experience. One must identify relevant differences between oneself and the target, with the aim to 'retool' one's cognitive system in ways that remove the differences between oneself and the target.

What are some of the dangers of seeking to understand the other by ignoring or obviating their differences? According to Medina (2013), it contributes to what Spelman calls boomerang perception: "I look at you and come right back to myself" (Spelman 1988, 12). The only way that I am able to see your humanity is by seeing you as a reflection of me. In other words, I do not see your humanity in its specificity. Medina argues that this attitude leads to a form of meta-ignorance:

> not simply a wrong-headed attitude toward specific others, but a restrictive overarching attitude that limits how others can appear to oneself, thus affecting one's attitudes toward specific others in negative ways, restricting one's sensitivity to differences and one's capacity to learn about this. This too (and not just the blatant denials of humanity) makes one blind to human differences and becomes an obstacle to the acquisition of social knowledge. (Medina 2013, 151)

To apply these considerations to the case of autism, there may be good intentions behind the attitude or recommendation to regard autists as 'like us,' but there are serious dangers of such an attitude, however well-meaning it may be in some cases. By seeking to erase differences we may inadvertently be promoting and sustaining a kind of ignorance whereby we fail to understand autists' thinkings, feelings, sayings, and doings in their specificity. We may even be restricting our capacity to learn about their differences. With regard to the particular issues of understanding individual agency and of treating autists as intentional agents in the "space of

reasons" when we interpret them and interact with them, we should keep continually aware of the possibility that there is more mentality and normativity than we 'see' in autists.

A closely related danger is to attempt to understand autists exclusively through the lens of our default framework of interpersonal interpretation. Modeling our understanding of autists' experience on typical human experience and conceptualizing autists' points of view simply as impoverished versions of "normal" ones can only go so far toward capturing the content of autists' experience of people, objects, environments, interactions, situations, and so forth. We need frameworks that make room for conceptualizing autists as having points of view on the world that are not simply a matter of missing things that typical individuals perceive. As proponents of the neurodiversity movement suggest, there are aspects of being autistic that involve unusual but not deficient ways of being in, experiencing, and knowing the world. As Amanda Baggs, an autistic adult, argues, "This is about what is, not what is missing…. It is about the fact that those of us who are viewed purely as having had things taken away—as being essentially barren wastelands—are not shut out of the richness of life by being who we are. The richness we experience is not some cheap romanticized copy of the richness others experience" (Baggs 2010, np; quoted in Nicolaidis 2012, 504).

6. Conclusion

I end with some brief reflections on how the issues raised in our discussion should affect future inquiry into autism specifically and understanding unlike-minded others more generally. First, in the light of the long history of stigmatization, exclusion, marginalization, oppression, dehumanization (aggressive and overt or passive and subtle), and silencing of unlike-minded others, it is imperative that we deepen our understanding of these and related dangers and how

they influence social cognition.[11] Second, the dangers outlined above occur not only in the practical and social spheres but also in academic research and writing—in how researchers conceptualize and represent their subjects. Recognition of the differences in autism should encourage us to be more wary, more self-conscious, and more methodologically humble. We should be vigilantly attentive to whether and how our theories and practices make room for autistic personhood. Our science of autism depends on our keeping all this in mind, as does our theoretical understanding of social cognition, as do the lives of autists. Finally, autism is a case study, but the lessons from reflection on autists' forms of different-mindedness and on the neurodiversity movement's call for greater recognition of cognitive differences and human variation generalize. The questions raised about autism go for all sorts of different differences. And there may be additional relevant forms of difference in the range of human variations that have gone undetected. Thus, one may find oneself in a situation of interpreting an unlike-minded

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[11] Recent work in critical social epistemology could further our reflections on the causes and consequences of these harmful phenomena. Congdon characterizes critical social epistemology thus: "[It] offers analyses of unjust social formations by approaching them at a distinctly epistemological level, focusing on ways in which certain forms of knowledge are excluded from public exchange, and how the epistemic authority of certain would-be knowers is either denied or diminished, not simply as the result of contingent epistemic failures, but in ways structurally connected with unjust conditions themselves" (Congdon 2015, 76).

other even in one's own culture much more frequently than is commonly taken into account in our theorizing about social cognition and in our interactions with others in everyday life.[12]

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