

# Ian Hacking

## *Humans, aliens & autism*

Contraries illumine what they are not. Aliens, typically from outer space, are almost by definition not human. Current portrayals of aliens may show more about who we, the humans, are than they do about our extragalactic contraries. In portrayal by opposites there is often a large dose of fear: for example, that we may be all too like the aliens we imagine. That leads to a paradox about autism and aliens. A persistent trope in some autism communities is that autistic people are aliens, or, symmetrically, that non-autistic people seem like aliens to autists. Some autists are attracted to the metaphor of the alien to describe their own condition, or to say that they find other people alien. Conversely, people who are not autistic may in desperation describe a severely autistic family member as alien.

I wonder less what this phenomenon shows about autism than what it reveals about what it is to be human. It is to be expected that what contraries teach may not be something hidden, but something that has always been on the surface, almost too banal for us to notice. The revelation of the obvious is not to be despised, for often the obvious is blinding.

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Oliver Sacks used a remark by Temple Grandin as the title of an essay about autism, which became the title of his book *An Anthropologist on Mars*. Grandin, an extraordinarily able autist, had said to Sacks, “Much of the time I feel like an anthropologist on Mars.”<sup>1</sup> She felt that interactions with other people were often as difficult as interviewing Martians. We move on from Mars to the extragalactic planet Aspergia, whose denizens have, unfortunately, been exiled to Earth. They find that the inhabitants of Earth are aliens with whom they are forced to share a planet, while earthlings in turn regard them as an alien species.

A nasty variant was used in a disturbing autism awareness sound bite given wide distribution a couple of years ago by the advocacy organization CAN: Cure Autism Now. After a bit of ominous music, an intensely concerned young father intones, “Imagine that aliens were stealing one in every two hundred children. . . . That is what is happening in America today. It is called autism.” This is the ancient myth of the changeling, the troll child substituted in the dead of night for an infant sleeping in his cot at home.

I spoke of *some* autism communities toying with the metaphor of aliens. Autism is a highly contested field, and there are many collectives with quite distinct

agendas. I have to make clear from the start that, far from regarding people with autism as aliens, I believe it to be a very substantial human achievement that room is being created for autistic people to live more comfortably among those who are not autistic. More and more resources are available to serve such ends, and the social history of this ongoing progress is a promising tale of hard work, a ray of light.

This essay uses autism as a foil. What is it about autistic people that prompts the trope of the alien? How are autists different from other human beings, in such a way that a gifted autist can feel that living among humans is like living with Martians? How can a gross but effective sound bite create the sense that aliens are snatching our children to make them theirs? I am of the school that thinks you can learn about X by reflecting on what makes something not-X. What does the metaphor of the alien, insofar as it's connected to autism, show about humanity?

**A**lien invasion is the lowest form of intergalactic fiction, but the word *alien* dates back to earliest English, and has always had an association with otherness or foreignness. In America, the term “resident alien” is used for non-citizens allowed to live and work in the United States – a term so demeaning that, colloquially, Americans tend to refer to immigrants as having a green card, rather than as being resident aliens. Although “resident alien” isn't incorrect in its denotation, I shall use *alien* with its recent connotations, which seem to have entered common usage in post-World War II science fiction. Aliens come from outer space – or, at least from somewhere other than Earth.

Humans and the “other-worldly” have been available as a duet for a very

long time.<sup>2</sup> Seventeenth-century Europe is especially rich in extraterrestrial utopias, satires, scientific speculation, and moral reflection. Their inhabitants, be they evil or models of virtue, served as foils for human beings. In that respect they are like the extragalactic creatures of our day. They also served as a screen question – a question that, like Freud's screen memories, hides what is really being asked, namely, whether the indigenous people of the Americas had souls.<sup>3</sup>

Aliens in modern space adventures may talk and walk like us, but by definition they are not human. Hence *human* and *alien* are a tightly bonded pair. Aliens can be better than us, as in moral fables such as *ET*. Most of the time they seem to be bent on destroying us. Monsters are terrifying, but when push comes to shove, they are closer to humans than aliens. At least they are on our side in *Monsters vs. Aliens*. In that recent movie, DreamWorks studios' first animated 3D release, a bride is hit by a meteor on her wedding day, and, like Alice, grows to fifty feet tall, less an inch. The U.S. Air Force kidnaps her to a secret concentration camp for monsters, populated by Dr. Cockroach, Ph.D. (humanoid body, cockroach head), a 350-foot-long grub, and their ilk. Earth is invaded by an alien robot that sets about destroying the United States, and the president responds by enlisting the monsters, who save America. Message: prefer terrestrial monsters to extragalactic aliens. A metaphor for an immigration policy?

Friend or foe, aliens are definitely not us. However, we seem to hold up aliens as mirrors to teach what is best or worst in us or in the human condition. Let us now move past this doublet to a triangle in which autism occupies the third point, and where the very word *alien* is a second-order metaphor. At zero order, an alien is a foreigner. At first order, an

alien is a rational and sentient being from outer space. At second order, the word is used as a metaphor for the strangeness of autistic people.

Hardly anyone had heard of autism before *Rain Man* in 1988, some twenty years ago. There is an astounding story behind the word *autism* – from its introduction around 1910 as the name of self-absorbed schizophrenic behavior, through the name of a diagnosis for children in 1943, and up to its radical expansion in recent years – yet until fairly recently, the word was unfamiliar. Today every reader knows about autism, if only because it is blazoned on everything from billboards to bus stop shelters. Many know someone diagnosed on the autistic spectrum, which includes Asperger’s syndrome. Since everyone has some common knowledge about the condition, my first task is to record ten reservations, qualifications, and cautions, in order to guard against this or that misapprehension.

First and foremost, all of those children and adults with autism are very different from each other. There are books titled or subtitled “The Autistic Child,” but there is no such entity, the autistic child, as if it were a subspecies of human beings. One current slogan, “If you know about one autistic person, you know about *one* autistic person,” cannot be emphasized too much. In what follows I shall pay special attention to one trait of autism in its more severe forms, but I do not mean to imply that anyone diagnosed with autism exemplifies this trait to a strong degree. I use an abstraction based on a stereotype of this trait to think about all humanity; it does not reflect in any way on the details of a life lived by any individual. I am using autism as a vehicle, and am not discussing the condition in its own right.

Second, the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* classifies autism as a mental disorder, a pervasive developmental disorder, in fact. But it is not a kind of madness, or a mental disorder like bipolar disorder. In the highly contested world of autism, some argue that it is not a disorder at all, only a *difference* from other people. Hence, like black pride or gay pride, there is something akin to autism pride, which at present may be settling into a “neurodiversity movement.”

Members of this loosely defined faction agree that autism is a neurological condition, but so, after all, is the state of what they call *neurotypicals*. Most people who will read this essay are, despite our oddities, neurotypicals. It is also true that many people who will read it can, like its author, notice autistic traits in themselves. For millennia we neurotypicals have refused to acknowledge neurodiversity and so (it is said) do not understand even ourselves.

People with autism are part of this diversity, celebrated in an era and a culture such as ours, where difference is understood as a good thing. The movement is a fascinating development in the odyssey of autism. But beware: I have noticed that when I say “neurotypical” in mixed or neurotypical company, many neurotypicals say “neuro-normal” back to me. That’s *exactly* to miss the point. The neurodiversity movement rejects the idea that there is neuro-normality.

Third qualification: autism is filed as a pervasive *developmental* disorder, one that can be noticed very early in life. What we now call autism began as infantile autism, but never forget that *autism is for life*. There is neither a known cause nor a known cure. Matters stand differently, however, from the ways they stood a few decades ago. We now know how to work with very young autistic children,

in order to help them compensate for their differences and adapt to the world of neurotypicals. Many labor-intensive programs are available, although autistic communities say there are not yet nearly enough.

We are also doing a fair job of helping neurotypicals to be less uncomfortable in the company of autistic people. This is not a ground for complacency, but the lives of many families with one or more severely autistic children are a great deal better than they could have been even twenty years ago.

A fourth reservation is that there are a great many approaches to autism, none of which is definitive. There are also many advocacy groups with different targets, which is why I spoke of autistic communities in the plural. Some of the differences arise from the nature of the autistic individuals involved; others arise from very different conceptions of autism and even of disability. Some autistic communities reject the very idea of a cure, which Cure Autism Now (CAN) espouses. Another organization, Defeat Autism Now! (DAN!) emphasizes diet and supplements, among other things. The Autism National Committee (AUTCOM) urges that autistic people are the real experts on autism. At present it argues for the importance of facilitated communication, a technique that others hold to be a sham.

Fifth, it is now standard to speak of the autistic spectrum and of autistic spectrum disorders, “ASDs.” A spectrum is intended to emphasize the previous point about variety, but the image is problematic: spectra are linear and autism isn’t. The metaphor suggests that you can arrange autistic people on a line, from more to less. It does make sense to speak of high-functioning people with autism, but that covers an extraordinary range of people. It also makes sense to

speak of being severely autistic – which, if anything, covers an even wider range of individuals. Spectrum is a metaphor from optics; if we are to use a metaphor from the sciences, I would prefer to speak of an autistic manifold. But the terminology of spectra is too established to root out.

Sixth, it is common to distinguish three groups of difficulties experienced by autistic children, namely, social and linguistic difficulties and fixedness; these persist in various degrees through life. This triad, as it is called, may be more of a mnemonic than a definition, although it is canonized in diagnostic protocols. It focuses on three difficulties deemed to be central, but there are many other aspects of autism, some more physical than mental.

Many people with autism have (a) various kinds of disadvantage in social interactions with neurotypicals. Most important for the purposes of this essay are their problems understanding what other people are doing, thinking, and feeling. Many cannot read your state of mind from your body language in the way that most children can. I do not refer here to the theory that autists lack a “Theory of Mind”; I mean something prior to theory, not something theoretical about a theory and its absence in autists. I try to stay closer to phenomena, best put by saying that many autistic people do not immediately know what another person is doing and have to work it out from clues. This is one part, but an essential one, of a larger canvas of difficulties in human relationships, including those within the family. This aspect of autism – which, to repeat, shows up in innumerable ways and in many degrees – is my focus below. Not surprisingly, we shall find that it is a primary ground for the metaphor of aliens.

In addition, many autistic children have (b) difficulties acquiring spoken language, to the point that some are mute for life, and many (c) are upset by change. They take what is said literally. They do not understand pretending, and they do not play, even alone, in the ways in which most children do. I call this fixedness, but many other terms are in use. A diagnosis on the autistic spectrum demands that at least two of these three deficits, or differences, are apparent.

Many autistic children find their differences from most people to be both deeply frustrating and frightening. The communal and family worlds in which they are expected to live are hospitable to most neurotypical children, but are constantly threatening for many autistic ones. Some of them succumb to violent temper tantrums. Others just want to get away to a safe place, curling up, for example, in a closet or on a stairwell.

Seventh, there are many aspects of autism beyond the triad. Many autistic children are subject to seizures. Many are hypersensitive to loud sounds, bright colors, and itchy surfaces, even the texture of a drink. A quite different group of problems, sometimes gathered under the label dyspraxia, is quite common. It primarily involves motor skills: bad balance, a tendency to bump into things, poor hand-eye coordination, difficulties in initiating or stopping movements, and even a poor hand-grasp, which makes it hard to use a key or a pencil. Many dyspraxic children begin to crawl, stand, and jump much later than their peers. Thus, although autism is usually thought of as a cluster of mental and emotional disabilities, there may also be many physical disabilities – or, to speak with the neurodiversity movement, many physical differences.

An eighth observation is that no one knows whether these several problems arise from a single neurological anomaly, or have distinct causes. Likewise, no one knows what is going to help. Even when we have two autistic brothers, and hence a presumed shared genetic basis for their autism, a regime that helps one may be useless to his brother. For example, in Charlotte Moore's biography of her two autistic sons, *George and Sam*, one boy is much helped by a gluten-and-casein-free diet, but it is useless for his brother.<sup>4</sup> Yet the brother is much helped by a program intended to help autistic children "integrate" sensory experiences that overpower them; this does not help the first boy at all. (Moore is one parent who emphasizes the physical aspects of autism that are so often underplayed in textbooks and manuals.)

A ninth reservation, of a different type, is that I shall use the word *autism* to talk about anything said to be on the autistic spectrum. Take Asperger's syndrome, introduced about 1980 by Lorna Wing, a British psychiatrist, in the name of a Viennese doctor who long before had diagnosed a small group of children with autistic difficulties but who did not have notable problems acquiring language. The name Asperger's is now often used synonymously with "high-functioning," but there are also debates as to whether it is something different altogether.

Lorna Wing, who also characterized the triad of difficulties mentioned above, is no longer content with the classification she created. It is said that some members of the developmental disorders task force for the future *DSM-V* want to eliminate Asperger's as a diagnosis. I take no position, except that despite the current popularity of the label "Asperger's," I shall avoid it. I use autism for the entire manifold of

associated difficulties. This does not imply any criticism of the very large number of people who cheerfully call themselves Aspies. Likewise, I shall not say “on the autistic spectrum.” Once we have agreed that autism is polymorphic in its manifestations, it is better to speak simply of autism.

A tenth remark concerns some all-too-frequently-asked questions. I shall answer two of them without argument, not to take a stand, but to evade the questions while showing where I do stand. One question is about incidence: are there really more autistic children born every year than ever before in history? Are the amazing increases in reported prevalence due to an epidemic of autism? My answer is no. The increases are thanks to expanding criteria of diagnosis, much greater alertness on the part of primary-care physicians and teachers to the possibility of autism, and to the fact that a diagnosis of autism gets a troubled child much better care for special needs than any other diagnosis. Thus a decent GP with the option of diagnosing autism will almost always do so, because it is good for the child and the family.

A second question is about the mercury in the old-fashioned MMR, which includes the measles vaccine. Does it predispose toward, or cause, autism? No.<sup>5</sup> But let me add a caveat. A child’s brain, from conception to the age of two years, grows at a prodigious rate. It is an unbelievably sensitive instrument, putting itself together over the course of thirty-three months. We should be very wary of subclinical toxic substances in the environment. My two youngest grandchildren are under two. When their respective mothers were pregnant, I strongly urged both mothers to go organic, and to avoid the armory of toxic cleansers found in most modern homes. I take toxicity very seriously indeed. I also

take rubella very seriously, and consider it horrible that parents, relying on ill-founded rumors about vaccines no longer in use, have stopped vaccinating their children.

Autism picked up the trope of the alien about twenty years ago. It has been flourishing in some autistic quarters, and is reviled in others. For starters, there are books with titles like *Through the Eyes of Aliens*, whose author is herself autistic,<sup>6</sup> or *Women from Another Planet?* whose author is afflicted by, among other things, Asperger’s syndrome and has organized a women’s collective to tell stories of their lives with Asperger’s.<sup>7</sup> A chapter in the latter book is called “How I came to understand the neurotypical world.”<sup>8</sup> You can hear two types of voice behind the titles of these books: yes, we are aliens, and it is great to be different, quirks and all; no, we are not aliens, we are women here on Earth, out to reorganize social norms.

There is also a new genre of fiction, featuring novels in which an autistic character plays an essential part in the plot. A significant proportion of these works are written by parents or relatives of autistic children, including Marti Leimbach’s *Daniel Isn’t Talking*, a book that resonates with many parents of autists. In that novel, we are set up from the start: shopping with her mother, the twenty-two-year-old future mother of Daniel says, “I could only give birth to an alien.” Her mother replies, “You will have the most beautiful babies.” Later on in the book, after her son is diagnosed with autism, Daniel’s mother feels “as though I started the journey this morning with my beloved little boy and am returning with a slightly alien, uneducable time bomb.”<sup>9</sup>

Another novel, Cammie McGovern’s thriller *Eye Contact*, features a ten-year-

old severely autistic boy who (perhaps) witnesses the murder of a slightly older girl. A special-needs aide says, "I used to think: Here are a bunch of kids so brilliant, so truly ahead of us intellectually, they came out of the womb, took one look around this screwed-up world and said to themselves, Good-bye. I'll go on living, but not here. Not on this planet."<sup>10</sup>

The trope is found in science fiction, as well as in tales for children. *Of Mice and Aliens* combines both genres. Zeke, an alien, crash-lands in the backyard of Ben, a boy who has recently been declared to have Asperger's syndrome. Together they set out to explore Ben's suburban Australian world and its inhabitants. "With Ben learning to cope with his newly diagnosed Asperger's syndrome, and Zeke trying to cope with life on Earth, things are not always as they seem."<sup>11</sup> Here it is not autists as aliens, but aliens and autists in cahoots.

All permutations seem to be played out. Pamela Victor's character Baj, on the planet Aulnar, has not only a flying bicycle, but a magical communication kit (the Word Launcher) and an invisible Calming Cape. There is also the equivalent of a magical ear trumpet, which enables Baj to spot the point of what someone is saying to him.<sup>12</sup>

Back in the real world, contrast such enthusiasm for aliens with Tito Rajarshi Mukhopadhyay's reaction to Portia Iversen's *Strange Son*.<sup>13</sup> Mukhopadhyay, seriously handicapped except when he is at a computer keyboard, is a gifted autistic author. *Strange Son* is about Iversen's own son, and his and her encounters with Mukhopadhyay and his mother. Iversen is a founder of Cure Autism Now, whose alien abduction ad was mentioned earlier. She brought both mother and son from India to America so she could disseminate the

mother's amazing teaching practices. In a review of Iversen's book on Amazon's U.S. site, Mukhopadhyay writes: "The book *Strange Son* felt like a 'slap' on my face. . . . My actions have been mentioned as 'beastly,' 'alien being,' 'possessed by a demon.'" He hates many of Iversen's statements, such as, "When I left their apartment that day I felt as if I'd glimpsed into the mind of an alien being."<sup>14</sup> Some people find the trope of the alien a powerful way to state the obvious, while others find it odious.

In 2005, Bob and Suzanne Wright founded Autism Speaks. It has become the engine of charities for autism research in the United States, and it is now assuming that role in the United Kingdom. Mr. Wright is CEO of NBC Universal, and a powerhouse in the corporate world. Why did he and his wife found Autism Speaks? He is often quoted as saying, "I want my grandson back!" The metaphor of abduction feels overpowering to some families; a baby that was a lovely human being has disappeared.

Jim Sinclair, in a talk titled "Don't Mourn for Us,"<sup>15</sup> countered this attitude. He urged parents not to go around pining for a child they wanted but never had. To Sinclair, there never was the grandson that the Wrights thought they had. If they need to mourn, they should go to a grief counselor who helps parents of children who died in infancy.

Sinclair was speaking for yet another advocacy organization, GRASP: The Global and Regional Asperger Syndrome Partnership. For the autistic child, he said, it is the parents and the neurotypicals who are alien:

Each of us [autistic people] who does learn to talk to you, each of us who manages to function at all in your society, each of us who manages to reach

out and make a connection with you, is operating in alien territory, making contact with alien beings. We spend our entire lives doing this. And then you tell us that we can't relate.

The trope of the alien, then, is symmetric: autistic people are aliens; or neurotypicals are aliens for autistic people. I have already mentioned an entertaining version that combines both angles, namely Aspergia.<sup>16</sup> "Each human culture has a mythology to account for its existence and whence it came. Now we have one too!" Aspergia is today's Atlantis, a planet from which the Aspergians came to Earth. (One blogger calls Aspergia her utopia). Aspergians have found that Earth is inhabited by some alien form of life called humans.

*Why does the metaphor of the alien crop up so often in fact and fiction?* Let us take Temple Grandin's comment – "Much of the time I feel like an anthropologist on Mars" – seriously for a moment. Wittgenstein thought, "If a lion could talk, we could not understand him."<sup>17</sup> If a Martian spoke, would we understand it? Only if we shared or came to share some "forms of life," some ways of living together. That is precisely the problem for a person with severe autism. Autistic people have a great deal of difficulty sharing any form of life with the neurotypical community. But the evocative phrase, "form of life," is never more than a pointer; we need to be more specific about what's missing.

"The eyes are the mirror of the soul," or window to the soul. At least since Roman times, some version of this maxim has been in circulation, evident in such places as the Latin proverb, *Oculus animi index*. The well-known literary figures who use this saying play with it as a standing reference point that everyone

already knows. Thus in the dialogue *De Oratore*, Cicero has Crassus say, "the face is an image of the soul, while the eyes reflect it."<sup>18</sup> Cicero is not idly repeating some piece of general knowledge. His protagonist is discussing the delivery of a speech, and seems to be counseling the orator to use his eyes *as if* he means what he says: even if you do not feel such-and-such an emotion, use your eyes to simulate the emotion. Here Cicero exploits an already well-understood conceit.

It is much the same with St. Jerome, who of course knew his Cicero. Writing to a widow, telling her how to preserve her modesty and chastity, Jerome begins a paragraph, "Avoid the company of young men." He goes on to warn, "The face is the mirror of the mind and a woman's eyes without a word betray the secrets of her heart."<sup>19</sup>

Dante's *Convivio*, composed after the death of Beatrice as a poet's version of *The Consolations of Philosophy*, is a strange work, parts of which are written in the form of poems followed by commentary on the poems. The soul, writes Dante, "reveals herself in the eyes so clearly that the emotion present in her may be recognized by anyone who gazes at them intently."<sup>20</sup> This is part of a commentary on the lines:

In her countenance appear such things  
As manifest a part of the joy of Paradise.  
I mean in her eyes and in her sweet smile,  
For here Love draws them, as to himself.

The "her" of the commentary is construed as Dame Philosophy herself, and the entire work is an incredibly overworked conceit. My point is only that Dante was playing with a saying he could assume to be familiar to anyone.

To judge by printed dictionaries of proverbs, the maxim appears as a proverb in all modern European languages. A list of English printed versions of the

saying, from 1545 to the present decade, is readily found in the *Oxford Dictionary of Proverbs*, with the last entry taken from a South Florida thriller: “All that windows-of-the-soul bullshit.” The speaker, usually dismissive of eyes as windows, recants on looking at an old school photo of the villain. He had been viewing the FBI’s state-of-the-art digital processing of photos on a screen. “It was excellent work, but like every computer enhancement he’d seen, something was lost from the original photograph. Some spark in the eyes.” In the small class photo there is “a brooding defiance,” such as one might see in torture victims whose whole sense of fear has mutated, but “also a glint of bitter humor. This was some smug little alien bastard.”<sup>21</sup> Not from outer space, Hal is just a very nasty piece of work, a “psychopath” employed as an assassin by a drug cartel.

The faded photograph, with those eyes, is something of a window on Hal’s soul. “On the television screen, however, his eyes were flat and empty. Drained of any hint of humanity by the digital rendering.” This is a shrewd observation. The farther you are from the material body, the less you can see in the eyes. Notice that the hero saw a brooding defiance; he *inferred* from such cues that this was some smug bastard.

The eyes, as mirror of the soul, or as window on the soul, have served as a standard metaphor in the West for millennia. Autism connects with this metaphor by way of autists’ notorious difficulty with eye contact. For whatever reason, autistic people, when they look at someone’s face at all, tend to focus on the lower part of the face (the mouth and chin) and not the eyes. This phenomenon has an immediate consequence. *For a person with autism, the eyes*

*of another are not a window to the soul of that other person.* Emotions, says Dante, can be recognized in the eyes by anyone “who gazes at them intently”; but that is exactly what most seriously autistic people cannot do: gaze at the eyes intently, or perceive emotions therein.

Conversely, the eyes of the autistic are not a clear mirror of the soul within, as neurotypicals would expect. Many autistic children seem positively cherubic when they are at peace. (Yes, cherubs are from another world.) Yet one cannot see what is going on in their heads. Some neurotypicals are frightened by the blankness, for they feel that maybe there is no soul there.

But there is the face, too. Analogous sayings, evidenced by Cicero himself, refer to the face as mirror or image of the soul. Dante’s stanza begins, “In her countenance appear such things,” for it was the eyes and the mouth that struck the poet. That is precisely why smiley faces and their variants are such good icons. They are now used, in some teaching regimens, to train autistic children how to recognize the emotions of others.

Cicero discussed the face and eyes in the larger context of the body and its gestures. So let us turn to the whole body, its movements, and its stance. A point easily missed is that, whether it is the eyes, the face, or the body, the tradition that is packed into the proverbs always conveys the idea of seeing directly, and not of inferring. There is no apparent reasoning going on: one just looks into, or through, the eyes to see the soul. More generally, as Wittgenstein has it, “The human body is the best picture of the human soul.”<sup>22</sup>

Wittgenstein was hardly being original when he penned that aphorism, speaking from a tradition at least as old

as Cicero. His remark is one of many in Part II of the *Philosophical Investigations* that seem to encapsulate ideas found in the middle part of Wolfgang Köhler's *Gestalt Psychology*, first published in 1929.<sup>23</sup> (Wittgenstein devoted some of his classes to the first edition of that book.) Köhler thinks many aspects of the body provide "pictures" of the inner thoughts and feelings. For Köhler, it is not only stance, but also body-language, as we now say: "[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."<sup>24</sup>

Both men give numerous examples of such phenomena of seeing in the eyes and in the movements of the body, as well as through agitation, what a person feels, thinks, or intends; seeing that a person is in a bad mood; noticing that a child both wants to touch a dog and is frightened of doing so. Köhler is now mostly remembered for his work with apes, and for his theory of visual organization, part of the Gestalt theory of perception. But the middle of his book is dense in close observations of ordinary behavior, some of which were recast into elegant phrases by Wittgenstein.<sup>25</sup> Here is a more complex case:

If my attention is attracted by a strange object, a snake for instance, I feel directed toward it and at the same time a feeling of tension is experienced. A friend, even if he has not recognized the snake, will see me and especially my face and eyes directed toward it; in the tension of my face he will have a visual picture of my inner tension, as in its direction he has a direct picture of the direction which I experience.<sup>26</sup>

Some readers will see in this vignette the friend *inferring* from Köhler's behavior that he is unnerved, and inferring where to look for the source of Köhler's feeling.

I, though, believe Köhler is absolutely correct in describing the phenomena; there is nothing worth the name of inference here. The friend just sees; he has a "direct picture." Of course, in every one of Köhler's examples there will be cases which call for inference. The point is not that one never infers, but that often one just "sees." A neurocognitivist may insist that there must always be a "computation" that passes from the sensory input to an understanding of the mental state of another person. Köhler would say that, if so, it must be different in kind from the "computation" involved in inference.

Köhler knew he was only describing, and he hoped that later generations of workers would be able to explain and understand the phenomenon. He wrote that his account "gives us neither an altogether new nor an altogether perfect key to another person's inner life; it tries only to describe so far as it can that kind of understanding which is *the common property and practice of mankind*." He hoped for future work "when the simpler facts described in this chapter will have found more general acknowledgement."<sup>27</sup>

I do not think we have fully come to terms with the "simpler facts" Köhler presents. They certainly bear on autism, for that kind of immediate understanding that Köhler described is *not the common property and practice of that part of humankind that is autistic*.

We should pay attention to Köhler's and Wittgenstein's contrast between, on the one hand, what one sees in the eyes, face, body, and the movements and gestures of another, and, on the other hand, what is inferred. The existence of such immediate understanding does not imply that what one sees is merely the exercise of an innate faculty, for it is to some

extent learned or acquired in the community of others. For example, one does not so readily see what foreigners are doing, let alone see into their souls, as is the case with one's compatriots.

Köhler's phenomena should make us rethink an idea widely shared by analytical philosophers: the idea that one knows the mind of another – or indeed that others have minds at all – “by analogy with one's own case.” We would be better to heed Lev Vygostky's proposals, that concepts of the mental life come later than an understanding of communal life, and are “internalized” not as an entry ticket to society, but only in the course of growing up and living among groups of people, starting with the extended family.

Underlying the “Other Minds” picture is a fundamental misconception, namely that I get the idea of mind and soul from knowledge of my own mind. The reasoning seems straightforward. I know what I think and feel and hope for; I know whom I love and whom I despise; I know my left foot is sore. How do I know? By looking inside myself, how else?

That picture prompts what is called the Problem of Other Minds. It is not a universal or timeless problem of philosophy. It was brought to the fore only in the early twentieth century by men such as William James and Bertrand Russell.<sup>28</sup> How do I know what you are thinking since I cannot look into your mind? By analogy to my own case, answered Russell and James. Later in the century, analytic philosophers said that it is not analogy, but explanation that is used. I explain your behavior by postulating that you have a mind like mine. This is called “an inference to the best explanation.”

The next step in this sequence of ideas is part of the overall repertoire of cogni-

tive theory. We do not infer other minds by analogy; instead, we come equipped with a Theory of Mind module, a faculty for attributing mental states to other people. This has become a canonical part of psychology, much preferred to models of analogy or inference. The idea was inaugurated by David Premack and Guy Woodruff studying chimpanzees. Quickly it led in 1983 to the false-belief tests devised by Heinz Wimmer and Josef Perner. Autistic children fare poorly on these tests, which require thinking about what other people believe, given the evidence that they possess. Thanks to Simon Baron-Cohen, Alan Leslie, and Uta Frith, among others, the tests have joined the arsenal for diagnosing autism. Many people hardly waste the time to write out “Theory of Mind” any more, they just write “ToM.”<sup>29</sup> I do not follow this practice, because the very fact that we use an abbreviation makes us take it for granted, as some sort of proven fact.

One great virtue of the Theory of Mind approach is that the ability to know what other people feel and think is no longer supposed to be a matter of analogical inference, as the old Anglo philosophers thought. Rather, it is an innate capacity, one that kicks in at an early stage as the child matures, and which may be associated with a Theory of Mind mental module. As a corollary, it does not kick in as early, or as well, for most autistic children.

Further speculation is fuelled by the idea of mirror neurons. Brain scans indicate that when Jones sees that Smith is sad or angry, blood flows to those same neurons it flows to when Jones himself is sad or angry. In general, when Jones observes Smith doing something, or feeling an emotion, the very parts of Jones's brain that are activated when he is so acting or feeling are activated by his observing Smith. This phenomenon, it

may be conjectured, underlies the phenomena described by Köhler and aphorized by Wittgenstein.

Hence there is promising research that suggests that the mirror neurons of autistic people are not in working order; either they are absent, or they function differently. I emphasize that these fascinating investigations are still open, however. A cynic may propose that the story is being told backward: Jones's relevant neurons are active on seeing Smith sad simply because he sees Smith sad – not, he sees Smith sad because his sadness neurons have been triggered.

Having acknowledged some of the truly exciting theories and conjectures about the mind now in circulation, let us return to the phenomena described by Köhler. They are familiar to most people, but are precisely what are *not* familiar, automatic, immediate, or instinctive for most autistic people. As we have said, they are not “the common property and practice” of that part of mankind that is autistic. Expert observers report that autistic children do not see that someone is in a bad humor; they do not follow the direction of a startled person's gaze; they do not readily understand what another person is doing – that is, they do not easily recognize intentions.

*Conversely*, ordinary people cannot see what an autistic boy is doing when, to take a banal example, he is furiously flapping his hands. What on earth is hand-flapping? The parent or other outsider knows vaguely that there must be some kind of agitation, yet the child seems so tranquil when hand-flapping. Articulate autists tell us how calming it is. So we are now able to infer a bit of what's going on; but instinctive neurotypical ways of interacting with other people do not enable us to look and see what the child is feeling.

More disturbing is an inability even to see what autistic children are doing. Their actions make little sense, their intentions are opaque. With the severely autistic, it may seem as if they do not even *have* many intentions. Hence they are taken to be emotionally “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.

At best, the feelings and emotions of the severely autistic must be inferred. We are not even confident of our inferences, not because we lack enough evidence, but because we may doubt that the concepts that have evolved over millennia for the description of neurotypicals are apt for the autistic life. Here it is necessary to repeat my first caution. I am using an abstraction from one of many autistic traits in order to think about the human condition, and am not speaking directly to questions about the nature of autism or the experience of autistic individuals.

Language matters. I would guess that as long as there has been human communication, there have been ways to describe emotions and intentions. Perhaps that is a mistake. Perhaps there is a long prehistory of human self-realization. That is, the Vygotskian project of crafting a language for the emotions of others and ourselves may have taken many, many generations of our remote ancestors to complete. And only late in prehistory, on this scenario, would this language have been internalized. What is now called first-person authority over awareness of our own emotional states would, then, have come into being slowly. If so, individuals with autism would not have stood out in the same way that they do now. (I am here speaking of prehistory, not of the quite different fact

that compulsory universal elementary education was a prerequisite for noticing various kinds of cognitive difficulty in a systematic way.)

Whatever evolutionary psychohistory we choose to imagine, it is a fact that there has been a language for the intentions, desires, and emotions of other people for all of historical time. It was, however, crafted by and for neurotypicals. We are only just beginning to adapt that language to the autistic life. In this we are much helped by autobiographies, novels, and the immensely rich world of autism lived on the Internet. It is very common to say that autobiographies describe autism “from the inside.”<sup>30</sup> I suggest there is little ready-made language to describe this inside, and that the autobiographies and the blogs are creating it right now.

We asked, “Why does the metaphor of the alien crop up so often in fact and fiction?” We can now state an answer: because of the absence of Köhler’s phenomena in relations between neurotypicals and autistic people. These phenomena are the “bedrock” for a “shared form of life,” to use two of Wittgenstein’s compelling phrases. Not only does Temple Grandin feel like an anthropologist on Mars, but neurotypicals feel they are confronted by unintelligible Martians when they first confront the reality of autism. It is important that she says Mars, and not Papua New Guinea. Innumerable languages are spoken in that part of the world, and the customs first encountered by Europeans are passing strange. But in no time at all, visitors and inhabitants were talking, generating creoles, taking advantage of each other. They did not share a common civilization, but they shared something far more fundamental, captured by Wittgenstein’s metaphor of bedrock.

Neurotypicals and severely autistic people do not initially share a form of life because the bedrock is lacking, and so an artificial platform must be constructed. That is one way to describe what is going on right now. In retrospect, we shall almost certainly see today’s Internet as making possible a form of life in which autistic people can thrive. It is precisely the medium for human communication that does not depend on body language or eye contact – in short, it does not need Köhler’s phenomena.

What distinguishes us from aliens (as we depict our contraries) is notoriously not rationality, but our emotional lives. We are fellow humans in that we grasp each other’s intentions, feelings, wants. Köhler’s phenomena enable such understanding to be taken for granted in our common ways of life. *They are the bedrock of our humanity.*

This conclusion is “obvious”; yet because the phenomena are so familiar, it takes an acute observer of human and animal behavior to point it out to us. It takes a great philosopher to see what the observer has noticed, and to cast that into an aphorism. The insights of Köhler and Wittgenstein have been virtually forgotten, even when the latter’s aphorisms are cited in thoughtless awe. An inquiry into the trope of autists and aliens may have been useful not only to notice something about autism, but also to remind us of a fundamental fact about human beings.

Köhler made an interesting observation on the score of what is obvious. “It is not our fault that, to a deplorable degree, the obvious has disappeared from learned psychology, so that we have to rediscover it.”<sup>31</sup> There is a great affinity between Wittgenstein and Köhler on this attitude to what we do not notice, both because it is always before our eyes,

and also because we theorize instead of looking.

It is well to conclude with a quite generous remark about human nature. We tend to be exclusive. Anthropology and sociology teach that human groups hang together partly because of who they include and partly because of who they exclude. Our instinct has always been to exclude aliens, first the terrestrial ones and then the extraterrestrial. There are a few fans of the SETI project, the Search for Extra-Terrestrial Intelligence, who see themselves as welcoming intelligent beings from outer space. But in general, the rule is “keep the others out.”

Neurotypical society has certainly excluded severely autistic people, consigning them, at best, to the role of village idiots or feral children, and, at worst, consigning them to institutions that, in retrospect, seem absolutely horrific. Whether or not the metaphor has been used, the practice has been to exclude the severely autistic as if they were aliens. But now there are remarkable endeavors afoot that aim at integrating autistic individuals into a larger social world.

Precisely because autistic children do not share in Köhler’s phenomena, it is

now common practice to try to teach them how to *infer* the feelings and intentions of other children and adults from behavior, gestures, and tone of voice. There are even posters showing what many people look like when they are happy or sad. These may include devices as simple as smiley faces and their kin. There are far more elaborate programs to teach how to tell, for example, when the person you are talking to is getting bored, so that you will not go on enthusing about the topic on which your passions are fixed, be it brontosaurus or electric coffee-makers.

There is immense controversy about what helps what person. Sometimes bitter words are exchanged as one school of thought and action confronts another. Desperate parents of the severely autistic try everything. It is becoming pretty clear that no specific agenda is good for every autistic person. But there is good reason to hope that, as I said at the start, the social history of this ongoing progress is a promising tale of hard work. It is a ray of light in the rather gloomy history of humans of the past few decades.

#### ENDNOTES

- <sup>1</sup> Oliver Sacks, “An Anthropologist on Mars,” *The New Yorker*, December 27, 1993; reprinted in Sacks, *An Anthropologist on Mars: Seven Paradoxical Tales* (New York: Knopf, 1995), 295.
- <sup>2</sup> Starting, perhaps, with Lucian of Samosata (ca. 125 – ca. 182), *A True Story*, trans. A. M. Harmon, Loeb Classical Library 14 (Cambridge, Mass.: Harvard University Press, 1968), 247 – 357.
- <sup>3</sup> A short but wise passage in Leibniz captures many of the uses of aliens; *New Essays Concerning the Human Understanding*, trans. Jonathan Bennett and Peter Remnant (Cambridge: Cambridge University Press, 1981), III, vi, section 22, as well as the notes. (This is mostly omitted from the abridged edition of 1982.)
- <sup>4</sup> Charlotte Moore, *George and Sam: Two Boys, One Family, and Autism* (London: Viking, 2004).

- <sup>5</sup> Leave aside the statistical analyses of the Centers for Disease Control and other authorities (which, as it turns out, detect no effect) to consider that Japan cut mercury out of vaccines at the first whiff of trouble, and the rapid increase in autism diagnoses continued much as in the United States and the United Kingdom.
- <sup>6</sup> Jasmine Lee O'Neill, *Through the Eyes of Aliens: A Book about Autistic People* (London: Jessica Kingsley Publishers, 1998).
- <sup>7</sup> Jean Kearns Miller, *Women from Another Planet? Our Lives in the Universe of Autism* (1st Books Library, 2003). Miller says she has been diagnosed with attention deficit disorder with Asperger's syndrome traits, as well as major depression.
- <sup>8</sup> *Ibid.*, 141.
- <sup>9</sup> Marti Leimbach, *Daniel Isn't Talking* (London: Fourth Estate, 2006), 4, 91.
- <sup>10</sup> Cammie McGovern, *Eye Contact* (New York: Viking, 2006), 60.
- <sup>11</sup> The quotation is from the back cover blurb. Kathy Hoopmann, *Of Mice and Aliens* (London: Jessica Kingsley Publishers, 2001). This book is a sequel in the Asperger Adventures series to Hoopmann's *Blue Bottle Mystery* (London: Jessica Kingsley Publishers, 2001), in which Ben first finds out what ails him.
- <sup>12</sup> Pamela Victor, *Baj and the Word Launcher: Space Age Asperger Adventures in Communication* (London: Jessica Kingsley Publishers, 2006).
- <sup>13</sup> Portia Iversen, *Strange Son: Two Mothers, Two Sons, and the Quest to Unlock the Hidden World of Autism* (New York: Riverhead Books, 2006).
- <sup>14</sup> *Ibid.*, 129.
- <sup>15</sup> A talk given at the International Conference on Autism, Toronto, 1993, and published in *Our Voice*, the newsletter of Autism Network International; available at <http://www.grasp.org/media/mourn.pdf>. One self-described "deconstruction" of Sinclair's may be found on a website whose name repudiates the trope of the alien: *Whose planet is it anyway?* The site features a blog, "Don't Mourn, Get Attitude" (August 9, 2006), whose title, the author explains, "is intended to make one thing clear: We are not, and never were, extraterrestrials flying around in UFOs, freakish mutants wandering the galaxy, or aliens lost in space, and we have just as much right to be on Planet Earth as anyone else." The blog refers to the umbrella organization Autism Speaks as a "hate group"; <http://autisticbfh.blogspot.com/2006/08/dont-mourn-get-attitude.html>.
- <sup>16</sup> I am quoting from <http://www.aspergia.com/>, accessible through 2006, but no longer active.
- <sup>17</sup> Ludwig Wittgenstein, *Philosophical Investigations*, rev. 3rd trans. (1953; Oxford: Blackwell, 2001), 190e.
- <sup>18</sup> Cicero, *De Oratore*, 3.221: "*Ut imago est animi voltus sic indices oculi*," from *Cicero on the Ideal Orator*, trans. James M. May and Jakob Wisse (New York and Oxford: Oxford University Press, 2001), 294.
- <sup>19</sup> St. Jerome, *Letters*, Letter 54, *To Furia*. I have used the old translation from *The Principal Works of St. Jerome*, trans. W. H. Fremantle (Oxford: Parker & Company, 1893). The Loeb version, *Select Letters of St. Jerome*, trans. F. A. Wright (Cambridge, Mass.: Harvard University Press, 1933), has the accurate translation, "The face is the mirror of the mind, and eyes without speaking confess the secrets of the heart," but the older version better conveys the intent of the letter.
- <sup>20</sup> Dante, *Convivio*, Trattato III, chap. 8, between line markers 9 and 10: "*Dimostrasi ne li occhi tanto manifesta, che conoscer si può la sua presente passione, chi bene là mira*," from *Dante's Il Convivio (The Banquet)*, trans. R. H. Lansing (New York: Garland, 1990), 111.
- <sup>21</sup> James W. Hall, *Rough Draft* (New York: Macmillan, 2001), 23. I do not know whether the author intended it or not, but he gives Hal traits common among autistic people, including

echolalia, the practice of repeating back what a speaker has just said. He cannot be said to experience most human emotions, but he has learned to work out what other people are feeling and how it will affect their behavior.

- <sup>22</sup> Wittgenstein, *Philosophical Investigations*, 152e.
- <sup>23</sup> Wolfgang Köhler, *Gestalt Psychology* (New York: Horace Liveright, 1929).
- <sup>24</sup> *Ibid.*, 250.
- <sup>25</sup> I provide exact citations in “Autistic Autobiography,” *Philosophical Transactions of the Royal Society B (Biological Sciences)* 364 (1522) (2009): 1467–1473. I owe my first reflections on Köhler and Wittgenstein to Janette Dinishak, “Wittgenstein and Koehler on Seeing and Seeing Aspects” (doctoral thesis, University of Toronto, 2008). She has helped me a good deal with this and other writings on autism.
- <sup>26</sup> Köhler, *Gestalt Psychology*, 250–251.
- <sup>27</sup> *Ibid.*, 266–267; emphasis added.
- <sup>28</sup> An early discussion of the Problem of Other Minds is in John Stuart Mill, *An Examination of Sir William Hamilton’s Philosophy and of the Principal Philosophical Questions discussed in his Writings* (London: Longman, Green, Longman, Roberts & Green, 1865), Chapter XII. The Problem seems to be insular, peculiar to the English language. There are major entries for Other Minds in standard English-language philosophical encyclopedias (Edwards, Routledge, Stanford Online), but not in those of other languages. We find, for example, in French a “*problème des autres esprits*” only where the author refers to Anglo writers. In their books *Problems of Philosophy*, which mark the onset of the idea that philosophy consists of problems, such as the Problem of Other Minds, both James and Russell present the problem, and the solution, by analogy.
- <sup>29</sup> David Premack and Guy Woodruff, “Does the Chimpanzee Have a Theory of Mind?” *Behavioral and Brain Science* 1 (1978): 515–526; Uta Frith and Francesca Happé, “Theory of Mind and Self-Consciousness: What is it Like to be Autistic?” *Mind & Language* 14 (1999): 1–22.
- <sup>30</sup> See Hacking, “Autistic Autobiography” for examples of this practice.
- <sup>31</sup> Köhler, *Gestalt Psychology*, 350.