Metaphor and (Dis)Embodiment: Inside the Autistic Mind

A verse is a one-way conversation. You are not getting interrupted in the middle. Here only your thoughts are getting flowed in one way. There are no other thoughts to interfere with the flow. Communication is a very primordial urge of human beings. Being an Autistic person does not give me any other definition and I am still a human being. (Mukhopadhyay, “Questions and Answers” 124)

In 1942, the Argentine writer Jorge Luis Borges published a short story about an extraordinary character “renowned for a number of eccentricities, such as that of having nothing to do with people and of always knowing the time, like a watch” (98). After a horse accident, which left him “hopelessly crippled” and “unmoving,” “the chronometer” (99) Ireneo Funes exhibited incredible perceptive and mnemonic powers. He had the curious ability to perceive and recall his environment in minute detail.

Doubtlessly, this character’s mind works differently from its ‘neuropypical’ counterpart, and today Ireneo would most likely be classified as a person with Autism Spectrum Disorder (ASD). Oblivious to this medical condition but well aware of Ireneo’s distinctive features, Borges’s narrator expresses some uneasiness about reconstructing the life of this extraordinary individual: “I shall not attempt to reproduce his words, now irrecoverable. I prefer truthfully to make a résumé of the many things Ireneo told me.” (101) Not only what Ireneo said but also how he would present his own story remains curiously inaccessible to the outsider’s perspective. The narrator explains: “The deplorable fact of my being an Argentinean will hinder me from falling into a dithyramb—an obligatory form in the Uruguay, when the theme is a Uruguayan.” (97) This comment on Ireneo’s poetic style is remarkable. We will come back to this point.

Borges’s obvious reservation against exploring the ‘autistic mind’ has hindered neither scientists nor novelists from claiming authority over its description and explanation. Shortly after Borges published his short story, the Austrian-American psychiatrist Leo Kanner and the Austrian pediatrician Hans Asperger were the first to describe the medical condition of autism now referred to as ASD (Kanner; Asperger). Autism has been defined as a severe developmental ‘disorder’ affecting the brain’s ‘normal’ development in the first years of life. In the current absence of full etiological understanding, the

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1 The suggestion to interpret “Funes” as a character on the autistic spectrum has been made by Sacks, *The Man Who* 219-20, and Szatmari 172-73.
‘disorder’ is diagnosed according to behavioral characteristics. In the Diagnostic and Statistical Manual for Mental Disorders (DSM-IV-TR), last modified in 2000, criteria for autism include “the presence of markedly abnormal or impaired development in social interaction and communication and a markedly restricted repertoire of activity and interest” (70).

The “puzzling constellation of symptoms in autism” has given rise to a range of theories concerning the underlying cognitive ‘impairment’ (Happé, “Language and Communication” 528).2 Probably the most persistent and convincing theory in recent years has argued that people with autism are ‘impaired’ in theory of mind, which is “the ability to attribute independent mental states to self and others in order to explain and predict behavior” (529).

Theory of mind can also serve as an explanation for why individuals with autism lack the ability to understand irony and metaphor (530). The argument runs as follows: As a lacking theory of mind renders autistic individuals incapable of grasping other people’s intentions, they will also be unable to identify figurative speech. Therefore, it is often said that people with autism show “overliteral understanding of communication” (527). The relationship between autism and metaphor has been explored in several contexts including science and literature. Examining the language of ‘autistic’ and ‘neurotypical’ writers, literary scholar Kristina Chew argues that “autistic idiolect” and creativity are metonymical rather than metaphorical (133). Mark Haddon’s novel The Curious Incident of the Dog in the Night-Time, published to great critical acclaim in 2003, foregrounds this phenomenon. The narrator Christopher Boone is an autistic boy who does not understand metaphors or jokes and prefers science over “proper novels” (Haddon 19, 5).

However, the notion that people with autism are unable to cope with metaphors has recently been contested. Gyasi Burks-Abbott, member of the Asperger’s Association of New England, and psychologist Ilona Roth have argued that—contrary to common belief—many autistic individuals are able to handle figurative language effectively. We would like to support their claim from a cognitive semantic perspective focusing on the so-called embodied cognition thesis, which proposes a close relation between metaphor and embodiment. We will argue that the relationship between body and mind in autism leads not to the absence of metaphor but to a modification of its conventional uses. In order to refine and expand the scope of our theoretical framework, we will furthermore introduce the concept of the ‘body image,’ which is closely related to embodiment, cognition, and language use in autism.

Before presenting our main argument, we will examine the ways in which the ‘autistic mind’ has been explored in scientific writing as well as in memoirs and autobiographies. In the course of this overview, we will introduce

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the Anglophone Indian writer Tito Rajarshi Mukhopadhyay, who will serve as a central example in our discussion.

Inside the Autistic Mind

The study of disease, for the physician, demands the study of identity, the inner worlds that patients, under the spur of illness, create. But the realities of patients, the ways in which they and their brains construct their own worlds, cannot be comprehended wholly from the outside. In addition to the objective approach of the scientist, the naturalist, we must employ an intersubjective approach too, leap- ing, as Foucault writes, “into the interior of morbid consciousness, [trying] to see the pathological world with the eyes of the patient himself.” (Sacks, An Anthro-
pologist on Mars xviii-xix)

The British-American neurologist Oliver Sacks claims that “autism was not fully described as a human condition until biographical and finally autobiographical narratives began to appear” (An Anthropologist on Mars 304). One of the first and, according to Sacks, still one of the best memoirs about an autistic child is Clara Claiborne Park’s The Siege published in 1967.3 In his foreword to Park’s sequel Exiting Nirvana, Sacks points out that The Siege was “the first ‘inside’ (as opposed to clinical) account of an autistic child’s development and life; and [that] it was written with an intelligence, a clear-sightedness, an insight, and a love that brought out to the full the complete strangeness, the ‘otherness,’ of the autistic mind” (Sacks, “Foreword” ix). As the title suggests, the biography deals with the Park family’s struggle to reach the mind of their self-centered and nearly non-verbal child. In want of an explanation of her daughter’s reclusiveness, Park is sometimes tempted to regard her as a “worldless baby,” who—albeit able to interact with her environ-
ment—deliberately refuses to do so (The Siege 45). Giving an account of her daughter’s alleged unwillingness to speak, she argues: “Speech is an open gate. The personality who cannot speak is in prison, the personality who will not lives in a walled fortress” (85; emphasis added). This imagery is reminiscent of Bruno Bettelheim, who compared the ‘autistic mind’ to an Empty Fortress in 1967. When reflecting on The Siege in 2001, Park insisted that she chose the title two years before she “had ever heard of an empty fortress” (10). Although Park clearly distances herself from Bettelheim’s theory, which blames autistic behavior on the parents’ emotional frigidity, her own inter-
pretation of the ‘autistic mind’ is not too far from his when she speculates about her daughter’s seemingly “empty” consciousness (88-89). In contrast to Bettelheim, however, Park demonstrates that she is highly aware of the dan-
ger that arises from such constructs (168, 187). In her emphasis on the con-
structed nature of ‘autism,’ she voices a central concern in the growing field

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3 Mitzi Waltz similarly recalls that The Siege “has been credited as a watershed event in the history of autism” (429).
of disability studies. Scholars working in this interdisciplinary area of research explore disability as a cultural construction and draw attention to the perspectives and experiences of the disabled (Davis; Johnstone; Nadesan “Constructing Autism” and Constructing Autism: Unravelling the ‘Truth’).

With regard to autism, most autobiographies are written by ‘high-functioning’ individuals who are diagnosed with Asperger’s syndrome, a mild form of autism in which language and cognitive development remain relatively unaffected (Happé, “Language and Communication” 532-33). Popular examples are texts written by Temple Grandin, an American animal science professor (Thinking in Pictures; with Margaret M. Scariano, Emergence), and Donna Williams, an Australian artist (Nobody Nowhere; Somebody Somewhere; Like Color). Both writers challenge the stereotypes that surround their condition not only in their autobiographies but also in guidebooks and more scientifically oriented publications (Grandin and Duffy, Developing Talents; Williams, Autism).

By contrast, ‘low-functioning’ autists are often considered as “people who cannot represent themselves and must be represented” (Berubé 572). Cases of severe autism are usually reported from an outsider’s perspective, as the condition renders patients incapable of expressing their inner lives in speech or writing. Some individuals have succeeded in engaging in “facilitative communication,” in which a teacher holds the wrist of the writer as he or she taps messages on a keypad. However, this method has been widely discredited as teachers are said to prompt the writer’s responses (Smith 232-35).

One remarkable exception is the autobiographical writing of Tito Rajarshi Mukhopadhyay, who was diagnosed with ‘severe autism’ when he was three years old. Tito has considerable difficulty speaking articulately, but his mother Soma showed him how to spell out words on a letter board and later taught him to write independently. Neuroscientist Michael Merzenich concedes that people like Tito “provide important insight into the neurological nature of this condition,” of which scientists “still have a relatively primitive understanding.” Drawing on James Olney, G. Thomas Couser discusses the powerful potential of such writing from a cultural studies perspective:

Autobiography warrants study not just as all too rare first-person testimony about disability conditions but also as potentially powerful counterdiscourse to the prevailing discourse of disability. [...] Written from inside the experience of disability—and in some instances from inside a distinct disability culture—autobiography may represent disability in ways that challenge usual cultural scripts. (109-10)

Apparently, the relationship between neuroscience and ‘illness narratives’ oscillates between synergetic and antagonistic interaction. As we will see, this complex relationship is also evident in Tito’s writings, which comprise three collections of autobiographical sketches. Between eight and eleven years of age, he composed the stories and poems contained in Beyond the Silence: My Life, the World and Autism published in England in 2000 and reissued in the United States as The Mind Tree: An Extraordinary Child Breaks the
Silence of Autism in 2003. After this publication, the American organization Cure Autism Now (CAN) invited Tito and his mother Soma to come to the United States, where Tito published The Gold of Sunbeams and Other Stories in 2005 and How Can I Talk If My Lips Don’t Move?: Inside My Autistic Mind in 2008. In the course of our discussion of Tito’s works, we will also come back to Borges’s “Funes.” Thereby, we will see that not only patients’ autobiographies but also ‘fictional’ accounts of medical conditions can expand the boundaries of scientific knowledge.

Metaphor and Embodiment

Primary metaphors are part of the cognitive unconscious. We acquire them automatically and unconsciously via the normal process of neural learning and may be unaware that we have them. We have no choice in this process. [...] If you are a normal human being, you inevitably acquire an enormous range of primary metaphors just by going about the world constantly moving and perceiving. (Lakoff and Johnson, Philosophy in the Flesh 56-57)

Comparing Tito’s autobiographical writing to our initial ‘fictional’ example of an ‘autistic mind,’ we find one interesting similarity. In both cases, extraordinary mental abilities are correlated with unusual bodily experience. Although it is not stated explicitly in Borges’s text, it is reasonable to assume that Ireneo is paralyzed. He has to be “brought to the window,” and his condition is furthermore described as an “eternal imprisonment” (99). Ireneo himself regards the destruction of his body as a prerequisite for his mental abilities, for he points out that “previous to the rainy afternoon when the blue-tinted horse threw him, he had been [...] blind, deaf-mute, somnambulist, memoryless” (101). Tito’s autobiographies imply a similar interdependence of embodiment and mental functions.

The correlation between embodiment and cognition has received considerable attention in cognitive linguistics. According to the embodied cognition thesis, human thought and imagination are based on sensory experience. It is presumed that the nature of embodiment prescribes the nature and range of concepts that can be represented in the mind. Mark Johnson defines these concepts or “image schemas” as recurrent patterns which “emerge as meaningful structures [...] chiefly at the level of our bodily movements through space, our manipulation of objects, and our perceptual interactions” (29). Image schemas develop during early childhood (Mandler). The infant’s experience of moving itself or objects from A to B, for instance, gives rise to the FROM-TO-schema. Mark Johnson provides several examples of daily activities which correspond to this schema, for instance “walking from one place to another” and “throwing a baseball to your sister” (28).

George Lakoff and Mark Johnson (Metaphors We Live By) argue that image schemas serve as an unconscious experiential basis for primary conceptual metaphors. Such metaphors are formed when a schematic representation
emerging from concrete experience is projected onto an abstract domain. For instance, the abstract domain of time is often encoded in terms of motion, as in “the deadline is fast approaching.” According to Lakoff and Johnson, primary metaphors are commonly used in communication as they help us make sense of abstract everyday experience.

In *More Than Cool Reason*, George Lakoff and Mark Turner point out that poetic thought derives from primary metaphors and is thus also based on embodied experience: “Poetic thought uses the mechanisms of everyday thought, but it extends them, elaborates them, and combines them in ways that go beyond the ordinary.” (67) Fig. 1 illustrates the process by which embodiment leads to metaphor. More precisely, it exemplifies the case of extension of conventional metaphors. In *More Than Cool Reason*, the term conventional metaphor is used as a synonym for primary conceptual metaphor, i.e. a metaphor which is frequently and automatically used in a linguistic community (51, 55).

When discussing the case of extension, Lakoff and Turner provide us with the example of DEATH IS SLEEP. On the one hand, there is embodiment, i.e. the physical experience of sleep, which gives rise to a general concept or image schema. On the other hand, there is the abstract notion of death—abstract because, obviously, it is rather difficult to experience death and derive a concept from that experience. Thus, it is not surprising that we would take to understanding death in other terms, for instance in terms of sleep. However, not all characteristics typically associated with sleep are mapped onto death. The possibility of dreaming, for instance, is conventionally excluded from this projection. If a poet decides to ignore this convention and associates death with dreaming, s/he has extended the primary metaphor and created an original poetic thought. (67) “What makes poetic metaphor noticeable and memorable,” Lakoff and Turner observe, “is thus the special, nonautomatic use to which ordinary, automatic modes of thought are put.” (72)

Fig. 1: From embodiment to poetic metaphor on the example of extension. The illustration is based on the analysis of poetic metaphors in Lakoff and Turner (*More Than Cool Reason* 67-72).
Development and Structure of the Body Image

We grasp external space through our bodily situation. A ‘corporeal or postural schema’ gives us at every moment a global, practical, and implicit notion of the relation between body and things, of our hold of them. A system of possible movements, or “motor projects” radiates from us to our environment. Our body is not in space like things; it inhabits or haunts space. It applies itself to space like a hand to an instrument [...]. (Merleau-Ponty 36)

Our sense of what is real begins with and depends crucially upon our bodies, especially our sensorimotor apparatus, which enables us to perceive, move, and manipulate, and the detailed structures of our brains, which have been shaped by both evolution and experience. (Lakoff and Johnson, *Philosophy in the Flesh* 17)

The capacity to experience spatial movements and to develop image schemas and conceptual metaphors requires a ‘sound’ body image or schema, i.e. “a psychic representation of the body that is constructed over time” (Salamon 109). Psychoanalysis, phenomenology and neuroscience have explored the psychological and physiological dimensions of the body image since the beginning of the twentieth century. The first extensive study of this phenomenon was Paul Schilder’s *The Image and Appearance of the Human Body*, published in 1950.

The development of the body image has been prominently investigated in psychoanalysis. According to Jacques Lacan’s theory of the mirror stage, the infant perceives its body as fragmented and fused with the maternal organism until it recognizes its image in the mirror for the first time. The specular image conveys to the child the imaginary idea of its discrete and unified existence: “The *mirror stage* [...] manufactures for the subject, caught up in the lure of spatial identification, the succession of phantasies that extends from a fragmented body-image to a form of its totality” (Lacan 1288; emphasis in the original). The mirror stage marks the emergence of the “Ideal-I” (1286) and is succeeded by the child’s ability to use the corresponding pronoun when referring to itself.

According to phenomenology, the body image informs us “how our body is positioned in space relative to the people, objects and environment around us,” and it “provides us with a reliable sense [...] of what our corporeal possibilities are at any given point in time” (Weiss 9, 17). The basic foundation of

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4 Whereas the terms “image” and “schema” are used interchangeably in Merleau-Ponty’s phenomenology, Gallagher and Stamenow argue for a distinction between the unconscious neural representation (“schema”) and the conscious mental representation (“image”) of the body.
spatial perception, the body image helps us to plan and coordinate our bodily movements. Neuroscientists, who are interested in the physiological basis of the body image, agree that body image and perceptual experience are complexly interrelated and interdependent. A ‘sound’ body image appears to be a prerequisite for ‘normal’ perception and vice versa. For if the brain does not get the “usual sensory information,” body image and motor control can be disturbed (Sacks, The Man Who 45-6; De Preester and Knockhaert 4-5). It has been found that the brains of people with ‘normal’ perceptual experience are organized topographically, with sensory and motor brain maps mirroring the order of body parts. It is presumed that in autistic people genetic and environmental factors lead to ‘atypical’ neurodevelopment leaving these individuals with “an undifferentiated cortex,” an assumption which often serves as an explanation of autistic ‘impairments’ (Doidge 82).

Investigating autistic behavior from a psychoanalytic perspective, François Sauvagnat deplores the “laboriously repetitive literature” on theory of mind in research in British institutions, which entails “the elimination of the clinical interest for body image disturbances in children exhibiting the ‘autistic spectrum’” (167):

Whoever is engaged in tackling the issue of the consistence of the body image in psychotic and autistic children will apparently find little support in most of the recent scientific literature on such disorders, although most of the direct testimonies—especially among parents of such children—abound in material. (153)

According to Sauvagnat, autistic individuals are unable “to experience their body as a closed, controllable totality” (161). He claims that their ‘defective’ body image provides us with an explanation for several symptoms in autism such as “automutilation” or “psychotic language disorders,” including echo-lalia and “the incapacity to use correctly [sic] personal pronouns” (162, 161).

Autism, (Dis)Embodiment and Metaphor

The very thought of my mind makes me wonder at its mysteries. What else is a mind but a mysterious possession, which allows all those fortunate and unfortunate things to be experienced, giving us the gift of pleasure and pain? (Mukhopadhyay, How Can I Talk 184)

The interrelation between embodiment, cognition, and language use is evident in both Borges’s tale and Tito’s autobiographies. In Borges’s “Funes,” the narrator’s first recollection of Ireneo is that of “a boy running along the narrow, cracked path as if he were running along a narrow, broken wall” (98). During their first encounter, the narrator is presented not only with an Ireneo ‘in motion’ but also with an impressive demonstration of his exact temporal perception. When Bernardo, the narrator’s brother, asks Ireneo about the time, the running boy locates the present moment by correlating it to a future point in time: “Without looking up, without stopping, Ireneo re-
plied: ‘In ten minutes it will be eight o’clock, child Bernardo Juan Francisco.’”

(98) This parallel occurrence of motion and linear time perception is too prominent to be merely accidental. Apparently, Ireneo skillfully uses embodiment in order to understand more abstract experience, such as that of time.

In the course of the tale, however, Ireneo loses his ability to abstract from concrete experience. This development is evident in both his perception and his use of language. For instance, he is no longer able to correlate terms and their extension:

It was not only difficult for him to understand that the generic term dog embraced so many unlike specimens of differing sizes and different forms; he was disturbed by the fact that a dog at three-fourteen (seen in profile) should have the same name as the dog at three-fifteen (seen from the front). (104; emphasis in the original)

Apparently, Borges’s text consciously plays with the notion that embodiment and cognition are interdependent. Although the ‘mind-body problem’ has always been a central topic in Western philosophy, it is nevertheless remarkable how precisely Borges anticipates findings of cognitive scientists of the twenty-first century. In our discussion of Tito’s writing, we will see how their notion of cognitive development can be used to challenge prevalent notions of creativity in ‘low-functioning’ autism.

Tito Mukhopadhyay’s autobiographical sketches demonstrate how autism affects not only his view of the world but also his poetic impulses. Tito’s sensory perception is clearly modified by his condition. Since he is unable to connect simultaneous sense experiences, he often focuses on his auditory sense, which he considers more powerful than his vision (How Can I Talk 112). Besides, Tito has “partial synesthesia” (184) which is why he often perceives sounds or emotions as color (110, 113; The Mind Tree 157). Tito’s “fragmented sensory experience” (How Can I Talk 212) inhibits him from forming a coherent body image. Tito frequently experiences a sensation of losing his body. Sometimes, he describes himself as a disembodied being; at other times, his body seems to be scattered and incontrollable. In The Mind Tree, in which Tito mainly talks about himself in the third person, he reports that “[t]he boy refused to accept the existence of his body, and imagined himself to be a spirit” (19). As a result of his virtual being, he “was losing control over his body. A sense of denying its existence was so strong that he could not respond to any situation the way it should have been done” (22).

5 Cf. Gallagher and Pfeiffer.

6 In Autism and Creativity, Michael Fitzgerald points out that people with low-functioning autism are not capable of true creativity. He agrees with Beate Hermelin, who holds that ‘low-functioning’ individuals lack “true creative ability,” which she defines as “the search for new forms of expression that characterise the history of Western art” (176). In his Asperger’s Syndrome and High Achievement, Ioan James jumps to similar conclusions when he differentiates between “classical autism” and “Asperger’s syndrome” (10).
Tito’s ability to ignore and lose his body turns into a painful experience when his mother challenges him to do puzzles and play games. Tito is fascinated by these new activities, but, at the same time, he becomes very frustrated about his apparent incapacity to initiate and control his body movements. Accordingly, “[h]e reasoned out that he might give it a try to be a ‘body’ instead of a ‘spirit’. But that was not any easy work. He felt that his body was scattered and it was difficult to collect it together” (*The Mind Tree* 28). Tito soon maps out several adaptive strategies that enable him to cope with this problem. For instance, he starts flapping his hands or rocking rhythmically with his entire body. In an interview conducted for the *New York Times*, Tito explains his nervous behavior as follows: “I am calming myself. My senses are so disconnected, I lose my body. So I flap. If I don’t do this, I feel scattered and anxious.” (qtd. in Blakeslee) In his autobiography, Tito reports that a rotating fan gave him another idea of how to recollect his scattered body parts, as he took to imitating its rotation. However, rather than enabling his body to interact with the environment, the spinning rendered them both transparent and unintelligible:

"I began to miss out on the richness of the surroundings because, when I rotated at that speed [...] my thoughts were too focused in the kinesthetic sensation of my movement. The sense of rotation, speed, direction, trying to remain below the fan, belief of becoming transparent like its blades, and losing my other thoughts, other than being in a state of total happiness, kept my heart occupied." (*How Can I Talk* 60-61)

Due to his synesthetic experiences and scattered senses, Tito seems to have missed out on developing image schemas at an early age. Even the most basic schemas like the FROM-TO-schema are absent from Tito’s mind. Remember that Johnson identifies “walking from one place to another” and “throwing a baseball to your sister” as experiential sources of this schema. These basic activities, which ‘normal’ people perform every day without thinking about them, constitute an insurmountable obstacle to Tito’s daily endeavor to act in the world. The mere wish to write a few lines must remain a plan if it requires him to walk into another room in order to get his pencil and notebook: “My pencil and my notebook were in the next room, and I could not map my body to go and bring them, although I could very well visualize the process of opening a page and write. Mother asked me to break my plan into step-by-step actions.” (126) The acquisition of every new skill requires the same lengthy procedure. With the strategy of learning step-by-step and a lot of practice, Tito gradually conditions his body to perform the desired movement. In a chapter entitled “A Game of Catch,” Tito reports that he could not use a ball in the right way when he was five years old. His mother and speech therapist had to teach him to handle the ball in minute steps, beginning by dropping the ball into his outstretched hands (129-32).

Tito’s mother finds interesting rewards for her son’s endeavors. For instance, she shoots a picture of him at the end of each day. The prospect of seeing himself in a photograph is highly motivating for Tito, most likely
because it provides him with an image of his whole and unscattered body (151). Not only physical but also cognitive improvements are visually (re)constructed. Thanks to his excellent education, Tito is well aware that his brain is plastic and adaptive as long as he makes an effort to change its circuits:

With every new skill I learn, more areas of my brain are exercised. [...] Mother would come home and draw diagrams to show me what my nerves were doing when I struggled with taking down dictated words. On the first few days, she would draw the dendrites and make a chain of them. She would draw them very lightly to show a feeble connection among them. As days passed, she would show a darker connection between them because they were supposed to be gaining in strength as I practiced. I could imagine the neurons making a pathway in my brain, as I showed more motivation and less resistance. (How Can I Talk 171)

Here, Tito refers to the relatively recent scientific discovery that the brain is malleable and adaptive not only in infancy but in adulthood as well. New findings on neuroplasticity, the ability of the brain to reorganize itself as a result of experience, have led to significant breakthroughs in the treatment of autism. The organization Cure Autism Now, which invited Tito to come to the United States, has established the so-called Neural Retraining Initiative. As Erin Dooley points out, “[t]he initiative’s first project, led by Michael Merzenich of the University of California, San Francisco, [designs] [...] nonpharmaceutical tools and techniques, including one to prevent the emergence of full-blown autism in at-risk infants.” Together with Steve Miller, Merzenich has founded the company Scientific Learning (Oakland), which, based on the findings that the brain is not rigidly fixed but plastic (Kilgrad and Merzenich), develops computer games that help rewire the brain (Miller and Tallal).7

Soma Mukhopadhyay’s successful work with Tito can be considered the result of intuitive neural retraining. By challenging her son to acquire new skills, no matter how long it takes, she considerably improves Tito’s condition. However, despite its enormous potential, this approach can achieve only limited functional recovery, depending also on how early the condition is detected. In his autobiographies, Tito frequently points out that he is far from feeling unscattered and safe. He keeps flapping or rocking in critical situations in which he feels he is losing his body, or he makes use of peculiar ‘body prostheses’ like his mirror image or photograph (How Can I Talk 139, 151). Even scientific knowledge cannot make up for his ‘deviant’ cognitive development: “Of course from my knowledge of biology I knew that I had voluntary muscles and involuntary muscles. But I experimented with myself that when I ordered my hand to pick up a pencil I could not do it.” (The Mind Tree 117) At the beginning of his learning process, Tito “could relate his thoughts to words and express them [...] only when somebody held

7 We are grateful to Steven Miller, Ph.D., co-founder and senior vice-president of Scientific Learning, Oakland, and his team for showing us around their premises and for generously sharing their expertise in the field of neuroplasticity.
his shoulder” (48), and even today his mother Soma needs to be at least present for Tito to be able to write. Apparently, he is not able to perceive his body as a discrete unit which can act by itself.

Tito’s ‘deviant’ embodiment leads to ‘atypical’ image schemas. When a scientist asks him how he remembers the laws of motion, he gives a surprising response: “I remembered it [the laws of motion] by envisioning a brown dog chewing on the wooden handle of a hammer, sitting on a mosaic floor. That picture had nothing to do with inertia or momentum or reactions in opposite directions.” Most interestingly, concepts that are acquired at a later stage of development, such as those of geometrical forms, for instance, seem to be more properly represented in Tito’s mind. He explains: “Certain facts may give me a closer mental picture. For example, when I became interested in trigonometric ratios, I could actually envision myself as an angle, looking at the base and the hypotenuse.” (How Can I Talk 208)

Not only Tito’s image schemas but also the conceptual metaphors that derive from them are far from ordinary. For instance, he perceives time in terms of stagnation rather than of momentum. For him, time delineates isolated, unconnected events or happenings. “[I]t limits the events within its set up boundaries. […] What else is time, if it does not cover happenings?” (The Mind Tree 180, 195) In a poem he muses on the mystery of linear time:

As with the graph of linear time,
I stood on a land so far from it,
And think of it with a longing mind.
(How Can I Talk 103)

As a matter of course, Tito’s perceptual and cognitive ‘disturbances’ affect his memory, or, to be more precise, his experiential memory. Experiential memory comprises “memories of having had a certain experience or of performing a particular deed, as opposed to remembering facts or remembering how to perform certain actions” (Matthews 146). Tito is acutely aware that his condition could undermine his credibility as an autobiographer. Although he embraces his ‘otherness’ to a certain extent, he feels obliged to address his reliability. Accordingly, he testifies:

I would never be able to forgive myself if I narrated an episodic memory, which was recorded by an overindulgence, partial indulgence, selective indulgence, or underindulgence of my senses. […] I have written only [sic] those selected experiences about which I knew there were witnesses. […] I did not talk about those surroundings and happenings around me where I was not backed up by someone who could verify it. I do not want anything to undermine the effort I put into this work.
(How Can I Talk 204, 206; emphasis added)

Tito assumes that his ‘neurotypical’ audience may be highly skeptical of his achievements. Thus, authentication and authorization are recurrent topics in his works, for instance in the passages in which he reflects on the significance of his handwriting. According to him, the primary purpose of acquiring this
skill was to prove to his logocentric audience his ability to think and to compose his own stories:

I needed people to believe that they were my own stories because I had the proof of my handwriting. If they doubted it, they could see me write my words. I knew very early on in life that if you happen to be born with autism, you will need to give plenty of proofs to doctors, psychologists, teachers, therapists, disbelieving uncles and neighbors, and who knows who else? (157)

Despite his efforts to conform, Tito finds it very difficult to escape the colonizing and othering forces of hegemonic discourse. Apparently, the notion that people with autism are ‘differently abled’ rather than ‘disabled’ has not yet sunk in among the ‘neurotypical’ majority. As Oliver Sacks points out, mental ‘disorders’ and ‘defects’ “can play a paradoxical role, by bringing out latent powers, developments, evolutions, forms of life, that might never be seen, or even be imaginable, in their absence” (An Anthropologist on Mars xvi). Tito’s mental mapping entails not only ‘deviant’ perception but also creative potential. In his latest autobiography, he explains how his poems come into being:

As my mind goes beyond the physical definition of light and air, I can easily transfer my thoughts to some other observation, far from physical interpretation. So it is very natural for me to feel that the air from the table fan is trying to blow away some of the intensity of the light from the surface of this page. Although it is not physically happening, it is the story my mind has formed. While I experience this situation, I am also putting my thoughts into language, so I can write them down exactly as I experience it. (How Can I Talk 198-99)

Note that Tito “feels” that light is a substance; therefore, he does not form a secondary conceptual metaphor here but refers to his primary sensory experience. Another source of inspiration is Tito’s notion of emotion which he perceives in terms of color. For instance, he reports that one day, when he realized he was lonely, “things started to change their actual colours” to gray. Thus for him, “[t]he colour of loneliness is gray” (The Mind Tree 157).

Above all, Tito’s unusual mental abilities give rise to some of his most powerful metaphors. As already mentioned, Tito gave the US version of his first autobiography the rather puzzling title The Mind Tree. This is also the title of the second-last chapter of the book. In this section, Tito uses the metaphor of the mind tree to describe his own existence. Most notably, he takes to using first-person narration in this part of the book, indicating that the poetic language he uses here is particularly suited for giving an authentic account of his inner self.

As a tree which has been gifted a mind, he is unmoving and incapable of interacting with his environment: “I cannot see or talk. [...] I can do nothing but wait.” (168) As the tree feels a reptile crossing its roots, any movement makes him envious and he wonders “where it could go” (171). Similarly, a group of camping travelers induce in him the wish to walk. But he can only follow his wish in his dreams: “I could dream of being a gypsy-tree, walking
beyond and across anywhere and everywhere.” (197) Sometimes—usually in the late afternoon—a group of happy men come by to sit under his shade. In an arduous attempt to communicate with them, the tree tries to wave his branches even though there is no wind helping him: “Of course, I have to make an extra effort to move my branches without any help from the wind. Yet I think that my welcome gets unnoticed as the happy men sit under my shadow and talk.” (172-73)

This imagery is grounded in Tito’s unusual bodily experience. Not even the most complex composition of conventional metaphors can account for his poetic imagination. Thus, Tito discloses the originality of autistic language, which Borges’s narrator had to withhold from his reader. It is remarkable that Tito would wait almost until the end of his book to fully reveal his rich figurative speech. It seems as if he knew he had to prepare his audience for his unconventional imagery by taking them into his autistic mind and showing them his way of perceiving the world. Most interestingly, this compositional decision would imply that Tito has another capacity which science usually denies the ‘autistic’ self: a theory of mind.

References


