# The Cerebral Subject and the Challenge of Neurodiversity

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#### Abstract

The neurodiversity movement has so far been dominated by autistic people who believe their condition is not a disease to be treated and, if possible, cured, but rather a human specificity (like sex or race) that must be equally respected. Autistic self-advocates largely oppose groups of parents of autistic children and professionals searching for a cure for autism. This article discusses the positions of the pro-cure and anti-cure groups. It also addresses the emergence of autistic cultures and various issues concerning autistic identities. It shows how identity issues are frequently linked to a 'neurological self-awareness' and a rejection of psychological interpretations. It argues that the preference for cerebral explanations cannot be reduced to an aversion to psychoanalysis or psychological culture. Instead, such preference must be understood within the context of the diffusion of neuroscientific claims beyond the laboratory and their penetration in different domains of life in contemporary biomedicalized societies. Within this framework, neuroscientific theories, practices, technologies and therapies are influencing the ways we think about ourselves and relate to others, favoring forms of neurological or cerebral subjectivation. The article shows how neuroscientific claims are taken up in the formation of identities, as well as social and community networks.

Keywords Autism, Autistic Cultures, Cerebral Subject, Identity Politics, Neurodiversity

My brain is a jewel.<sup>1</sup> For Bruce and Jin, neurodivine<sup>2</sup>

In 1998, in an often quoted article emblematically entitled 'Thoughts on finding myself differently brained', US autistic self-advocate Jane Meyerding makes the seemingly odd observation that she 'was surprised to find [herself] moving into the realm of neurology'. In this

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- 1 Muskie, creator of the Institute for the Study of the Neurologically Typical website, http://isnt.autistics.org
- 2 Dedication of Susanne Antonetta's book, A mind apart: Travels in a neurodiverse world (2005).

article I intend to disentangle this observation by showing the role played by neuroscientific claims in the recent autism self-advocacy movement. Autism advocacy has been largely organized around the so-called neurodiversity movement, which emerged during the 1990s. So far the movement has been dominated by people diagnosed with Asperger Syndrome and other forms of high-functioning autism (although there are some prominent low-functioning selfadvocates). They believe their condition is not a disease to be treated and, if possible, cured, but rather a human specificity (like sex or race) that must be equally respected. For them, an atypical neurological 'wiring' and not a pathological cognitive organization accounts for their difference. My main interest is to address issues concerning 'autistic identities' and to show how, within the neurodiversity movement, identity issues are frequently linked to what activist Judy Singer (1999) has called a 'neurological self-awareness' and a rejection of psychological interpretations. However, as I will show, the preference for neurology cannot be reduced to an aversion to psychoanalysis or psychological culture. Instead, it must be understood within the context of the diffusion of neuroscientific claims beyond the laboratory and their penetration in different domains of life in contemporary biomedicalized societies. Within this framework, neuroscientific theories, practices, technologies and therapies are influencing the ways we think about ourselves and relate to others, favoring forms of neurological or cerebral subjectivation. Thus, the idea of a 'neurobiologization of selfhood', expressed in the notion of 'neurochemical self' (Rose, 2007) or the 'cerebralization' of the self, largely represented by the notion of the 'cerebral subject' (Ehrenberg, 2004; Ortega and Vidal, 2007; Vidal, 2009), may constitute an underlying presupposition of the 'new brain sciences' (Abi-Rached, 2008a, 2008b). Beliefs, desires, behavior and emotions are addressed in wholly cerebral, or rather neurochemical terms, and their social and cultural effects are also attributed to the brain (Rees and Rose, 2004). I believe the term 'cerebral subject' is an illustrative way to describe brain-centered approaches to the human person and to understand the use of cerebral vocabulary within the neurodiversity movement.

When I speak of the 'cerebral subject' I do not mean to reify the notion. The cerebral subject is an 'anthropological figure' that has no reality prior to its performative embodiments. In other words, the process of subjectification has ontological preeminence, and that is why, to analyze the cerebral subject, one should focus on its formation and the practices of self-constitution through which individuals fashion themselves in cerebral terms. This process can be understood as involving 'technologies of the self' (Foucault, 1988) and the diffusion of expert knowledge in popular culture. 'Making up people', as Ian Hacking (2002: 111) calls it, involves the creation of descriptive or diagnostic categories through expert knowledge; individuals assimilate these categories into their descriptions and practices of the self, and thereby transform them and bring about realities that experts must in turn confront. Such co-construction of categorical and personal identity is what Hacking (1995) has characterized as the 'looping effect of human kinds'.

The psychiatric label of autism or Asperger Syndrome affects the persons so labeled and/ or their families and caretakers, and potentially changes their behavior and hence the meaning of the label itself. The label has undergone transformations because of changing neurobiological and genetic theories. The looping effect encompasses not only scientific and diagnostic developments, but also parent and self-advocacy groups as well as general images of autism and Asperger Syndrome in popular movies, TV programs, personal testimonies, novels, blogs and other internet resources.

Some autistic persons and groups draw on neuroscientific terms and metaphors in their self-definition, in their claims to *neuro* diversity, and in the practices consistent with those claims. Although autism advocacy and neurodiversity have been the object of several studies, the cerebralization of autistic culture has so far not been specifically examined.

I begin by describing the biosocial field of autism in which, since the mid 1960s, autistic parent associations, followed by autism self-advocacy movements, have emerged. I then sketch the conflicts around the search for a cure—some being in favor of therapies and others against. The field is defined by conflicting discourses or ideologies, rather than by homogeneous groups with antagonistic positions. After delineating the main characteristics of autistic culture and showing how 'neurodiverse' biosociality is articulated on the internet, I go on to consider identitarian issues. While most pro-cure parent and professional associations refuse to identify positively with the condition (because they see autism as a disease, and therefore something one is afflicted with), autistic self-advocates take pride in the condition. This is epitomized in their rejection of the term 'person with autism' and the adoption of labels such as 'autistic' or 'aspie'.

The central part of this article examines how autistics' identitarian assertion is often linked to the cerebralization of autism: people define themselves as autistics (rather than as having autism) because their brains are 'wired' in an atypical way. On the basis of materials from the internet and published qualitative studies, the last part of the article explores how self-activists draw on neuroscientific terms and metaphors to describe themselves and their relation to others. The neuroscientistic language, often imprecise, serves to construe autism as a positive attribute, and to stress the natural difference from non-autistic (often called neurotypical) experience and identity.

Finally, I draw some conclusions on identity politics based on the tendency of some groups to obliterate difference within the autistic movement, and to disqualify neurotypical forms of life and experience. While it is understandable that some self-advocates feel offended by the pro-cure rhetoric of some parent and professional organizations, the latter are also justified in criticizing the aggressive identity politics advanced by the radical activists of the autistic movement, who appropriate the right to speak in the name of every person diagnosed with autism. In fact, the neurodiversity movement constitutes a minority within the total spectrum of autism. It would be hypocritical to subsume all forms of the autistic continuum under the 'high-functional', and then happily consider that autism is a lifestyle. These are the challenges faced by the neurodiversity movement, in which, in the US especially, the search for new and non-pathologized forms of identity and community stands in tension with reductionistic identity politics.

#### The biosocial field of autism

The emergence of the term 'neurodiversity' and the corresponding neurodiversity movement that began during the late 1990s should be analyzed within a broad perspective that, on the one hand, includes the history of disability movements (Charlton, 2000; Corker and French, 1999; Corker and Shakespeare, 2004; Davis, 1995, 2002; Shapiro, 1993) and, on the other, absorbs the growing impact of neuroscientific knowledge and practices on the cultural imaginary.

The neurodiversity movement is historically connected to a shift away from psychoanalysis and toward a neurobiological and genetic understanding of autism. From the 1940s to the 1960s, and even to the mid 1970s, especially in the US, psychoanalytical explanations were paramount both in psychiatric theory and clinical practice (Nadesan, 2005). Such a shift went hand in hand with the emergence of pro-cure and anti-cure discourses, expressed by neurodiversity advocacy groups, and parent and practitioner groups that favored the search for and use of behavioral and psychopharmacological therapies (Chamak, 2008; Silverman, 2008a, 2008b).

The first autistic parent associations appeared in the mid 1960s. The National Autistic Society was founded in London in 1962. In 1965, Bernard Rimland, author of Infantile autism: The syndrome and its implications for a neural theory of behavior, together with Ruth Sullivan and other parents, established the Autism Society of America.<sup>3</sup> Similar groups soon mushroomed in many other countries.<sup>4</sup> The emergence of the internet in the early 1990s constituted a major turning point for both parent and self-advocacy groups. One of the earliest online parent lists, the Autism and Developmental Disabilities List (AUTISM List), contributed to the spread of Applied Behavioral Analysis (ABA), a form of cognitive-behavioral therapy which the parents involved wished to adapt to autistic children. The emphasis on treatment and cure gave rise to criticism from 'autistic adults',5 who felt both experts and families misunderstood and ignored them. As a consequence, Australian and American autistics, headed by self-advocates Jim Sinclair and Donna Williams, formed Autism Network International (ANI) in 1992, supplemented since 1994 by Autism Network International Listsery (ANI-L). The first issue of their newsletter Our Voice was issued in 1992 and the first autistic retreat (called Autreat) took place in 1996 (Chamak, 2008; Silverman, 2008a). Although non-autistics may adhere to ANI, all decision-making should be done by autistics alone. The motto 'By autistics for autistics' has captured ANI's central value since its inception and it is designed to extend the ideological basis of the disability movement at large, epitomized in the principle 'Nothing about us without us' (Charlton, 2000; Shapiro, 1993).

The aim of such internet listings is to question the negative vision of autism represented in sites developed by the professionals and autistic children's families, whose 'obsession' with a cure is considered disrespectful of the autistic way of life. Insofar as autism is considered not an illness but a difference, the search for a cure becomes an attempt to erase this difference. That is why the anti-cure perspective has gathered strength within the autistic self-advocacy movement (Sinclair, 2005).

In the opposite camp stand organizations such as the National Alliance for Autism Research (NAAR), founded in 1994, and the Cure Autism Now Foundation (CAN).6 The

<sup>3</sup> See URL: http://www.autism-society.org

<sup>4</sup> See Dekker (2006), Wing (1997) and Shapiro (2006); see also the entry, 'Autism Rights Movement' in Wikipedia at http://en.wikipedia.org/wiki/Autism\_rights\_movement

<sup>5</sup> The use of 'person-first language' generally supported by the disability rights movement is not always well seen by autism self-advocacy groups for whom the expression 'a person with autism' suggests that the 'condition can be separated from the person' (Sinclair, 1999). That is why, when referring to self-advocacy movements, I will use the terms 'autistic' or 'autistic person'. See also Hacking (2009).

<sup>6</sup> See URL: http://www.naar.org/naar.asp; http://www.cureautismnow.org; see also http://en.wikipedia.org/wiki/ Cure\_Autism\_Now

latter was created in 1995 by the parents of an autistic child, and brings together families, medical doctors and scientists devoted to accelerating the pace of biomedical research on autism and raising funds for research and education in the area. NAAR and CAN have now merged their operations with Autism Speaks. CAN is a major target for autism movement activists, who accuse it of demonizing autistics and frightening their families, promoting narrow viewpoints on the disorder, and never listening to the life experiences of autistic adults. A good example of the extreme forms such criticism may take appears on the website Autistic.org, which shows a trash-can full of dead autistic fetuses labeled CAN; placed in front of an abortion clinic, and with the caption, 'The real meaning of "autism prevention"'. There is also a joke organization known as CAN'T—Cure All NeuroTypicals, that parodies the name and acronym of Cure Autism Now-CAN.

The growth of self-advocacy movements and their enhanced exposure in the media have intensified the political clash between autistic and pro-cure activists. One of the most controversial issues in this field concerns ABA, a cognitive therapy protocol that, for many parents, is the only therapy that leads autistic children to make some progress in the form of establishing visual contact and performing limited cognitive tasks. <sup>10</sup> For autism activists, ABA represses autistics' natural modes of expression (Dawson, 2004). In the Anglo-Saxon world, the debate has reached the courts, with parents fighting to obtain governmental support or make health insurance companies pay for the therapy, which is extremely expensive. The advocates' claim that autism is not an illness and that attempts to cure it violate autistic rights may therefore provide a legal backing for refusing to subsidize the

Such circumstances significantly increase the intensity of the debate. To those for whom autism is a disease (primarily caused by genetic and neurobiological factors), the anti-cure and pro-neurodiversity positions not only contradict their claims, but also insult the suffering of patients and their families. For the most extreme neurodiversity advocates, the search for therapies illustrates denial and intolerance toward differences, as well as the promotion of eugenic and genocidal policies.<sup>11</sup>

The biosocial field of autism, however, is not entirely structured by such radical polarizations.

Temple Grandin, a high-functioning autistic who provided the title for Oliver Sack's An anthropologist on Mars (a title reflecting how she says she feels around neurotypicals) and a prominent self-advocate, is not against medication—though this applies mainly to secondary symptoms, such as anxiety, and not to autism itself, which is clearly conveyed in her autobiography, Thinking in pictures (1995). Judy Singer, another autism activist, argues that remedies are acceptable as long as they aim to relieve suffering, not change the patients'

<sup>7</sup> See URL: http://www.autismspeaks.org/index.php

<sup>8</sup> See URL: http://everything2.com/title/neurotypical

<sup>9</sup> To better understand the debate and the positions at play, see Chamak (2008), Clarke and van Amerom (2007, 2008), Silverman (2008a, 2008b) and the entry 'Autism Rights Movement' in Wikipedia.

<sup>10</sup> ABA applies learning theory to improve 'socially significant behaviors.' It aims to promote the development of adaptive, pro-social conduct. See http://www.centerforautism.com/aba/whatisaba.asp

<sup>11</sup> Consequently, some self-advocates made a petition to the United Nations in 2004, asking to be recognized as a 'minority social group' deserving protection against 'discrimination' and 'inhuman treatment' (Nelson, 2004).

personalities. Fernando Cotta, president of the Brazilian Autistic Pride movement, concurs that respecting autistics is not incompatible with medication; if an autistic 'has attention problems, he can take something that can help him, just as somebody who has the flu takes an anti-flu medicament' (Lage, 2006).

Thus, some self-advocates have a pragmatic attitude toward medical interventions, while insisting that autism itself is not to be treated. Conversely, not all activist parents belong to organizations to cure autism. Kathleen Seidel, who has been called 'the Erin Brockovich of autism-spectrum disorders' (Solomon, 2008) and who runs a website 'honoring the variety of human wiring' has an autistic child. The Autism Acceptance Project<sup>13</sup> was founded by an autistic child's mother to 'bring forth a different and positive view about autism to the public in order to create tolerance and acceptance in the community and to empower parents and autistic people'. It emphasizes that it 'does not solicit funds for the cure of autism' nor see autism as a 'tragic epidemic'.

In short, neither all parents oppose self-advocacy movements, nor all autistic adults favor neurodiversity. 14 The latter sometimes find it difficult to combine their identities as autistics within the autistic communities and their identities within the neurotypical world, and this tension can become an important source of anxiety and suffering (Bagatell, 2007). In addition, some autistic adults do want to be cured—but they seem to represent a largely silent population. 'Most persons with an autism-spectrum disorder have never expressed their opinions on someone's blog and never will', affirms Jonathan Mitchell, who suffers from a mild autism spectrum disorder, blogs against neurodiversity, and notes that 'the neurodiverse often reach a vulnerable audience, as many persons on the spectrum have low self-esteem. Neurodiversity provides a tempting escape valve' (quoted in Solomon, 2008). 15 Sue Rubin, a low-functioning autistic and subject of the documentary Autism is a world, emphasizes that whereas high-functioning autistics tend to be against a cure, low-functioning autistics generally hold the opposite position. 'As a person with low-functioning autism that is still really awash in autism, I actually am aligned with the cure group', she states, and 'the thought of a gold pot of a potion with a cure really would be wonderful.' And she concludes:

As a person who lives with autism daily and will not live a normal life, I find people who are high functioning and saying society should not look for a cure offensive. They have no idea what our lives are like. Killing autism lets me enjoy a life with great friends and allows me to go to college, but I must never let down my guard or autism will take over. I don't want any more children to live, as I must, in this constant state of war. (Rubin, 2005)

- 12 See URL: www.neurodiversity.com
- 13 See URL: www.taaproject.com
- 14 See for instance the Natural Variation-Autism blog (http://autismnaturalvariation.blogspot.com). There is a very interesting discussion on this blog, on the 3 March 2009 post, about the differences between autistics who approve and disapprove of neurodiversity. The discussion was launched by the published report entitled 'Neurodiversity in higher education: Insights from qualitative research' by the BRAINHE project (Best Resources for Achievement and Intervention re Neurodiversity in Higher Education), a National Teaching Fellowship Scheme project funded by the Higher Education Academy in the UK (www.brainhe.com).
- 15 In his homepage, Mitchell presents himself as being 'pro-cure, anti-neurodiversity, anti-special ed, anti-ABA', and he adds, 'I have something to piss off everybody! Therefore you can call me autism's gadfly!' (http:// www.jonathans-stories.com).

Finally, the relationship between parent and self-advocacy groups differs considerably depending on national context. Whereas in the US, the UK and Australia this relationship can be highly conflictual, in France autistic self-advocacy remains under the influence of parent associations (Chamak, 2008). In conclusion, the biosocial field of autism seems to be extremely polarized at first glance, but under closer inspection it appears to be more complex and provides room for a variety of nuanced positions. It is therefore more appropriate to characterize it as including discourses, individuals and groups that, while conflicting in some respects, may in others overlap or support each other, rather than to simplify it as characterized by a clash of homogeneous groups that hold neatly antagonistic positions. <sup>16</sup>

### Autistic cultures and neurodiversity

The term 'neurodiversity' is generally credited to Judy Singer, a sociologist diagnosed with Asperger Syndrome, who used it in a 1999 article titled 'Why can't you be normal for once in your life? From a "problem with no name" to the emergence of a new category of difference'. The term also appeared in Jane Meyerding's 1998 'Thoughts on finding myself differently brained', and Singer herself wrote, 'I am not sure if I coined this word, or whether it's just "in the air", part of the zeitgeist (quoted in Meyerding, 1998).' As already mentioned, 'neurodiversity' asserts that some features usually described as illnesses are in fact only atypical or 'neurodivergent', i.e. they result from a specific 'neurological wiring'. 17 Therefore, it is merely a human difference that must be respected like any other such difference (be it sex, race or any other attribute). Such individuals are 'neurologically diverse' or 'neuroatypical'. People diagnosed with autism, specifically Asperger Syndrome and other forms of 'high-functioning autism', are the driving force behind this movement, although some prominent self-advocates, such as Amanda Baggs, do not speak and define themselves as 'low functioning'. 18 It should be noted that having expressive speech does not necessarily correlate with overall cognitive ability, although it is difficult to test cognitive ability in an individual with poor communication skills. For them, insofar as autism is not an illness, but rather a constitutional part of who they truly are, searching for a cure implies refusing it as 'a new category of human difference' (Singer, 1999: 63).

According to some activists, if neurodiversity is considered a disease, then 'neurotypicality' should be too. Muskie, creator of the satirical Institute for the Study of the Neurologically Typical, <sup>19</sup> explains that he decided to express 'autistic outrage' after noticing that what 'experts' and 'professionals' write is 'arrogant, insulting, and just plain wrong'. He defines the 'Neurotypical Syndrome' as a 'neurobiological disorder characterized by preoccupation

- 16 I am grateful to the anonymous referee that called my attention to this important distinction.
- 17 See http://en.wikipedia.org/wiki/Neurodiversity. Among the best-known and most vocal groups are http://www. neurodiversity.com and www.aspiesforfreedom.com, but groups and websites are multiplying in different countries and manifest various positions and national differences.
- 18 Amanda Baggs, who speaks through a voice syntheziser, became one of the best-known autism self-advocates after posting her video 'In my language', in January 2007, (http://www.youtube.com/watch?v=JnylM1hI2jc). There is a growing controversy as to whether Baggs is really a person with autism and if she really made the video herself. See among others http://amandabaggscontroversy.blogspot.com/2009/07/amanda-baggscontroversy.html
- 19 See URL: http://isnt.autistics.org

with social concerns, delusions of superiority, and obsession with conformity.' Neurotypical individuals (NTs), he adds, 'often assume that their experience of the world is either the only one, or the only correct one. NT's find it difficult to be alone. NT's are often intolerant of seemingly minor differences in others.' The stated goal of the 'Institute' is to deconstruct the pro-cure rhetoric by demonstrating the absurdity involved in trying to diagnose or cure 'normalcy' or 'neurotypicality'. But if we thoughtlessly accept the pro-cure rhetoric of associations like Cure Autism Now, Defeat Autism Now or Autism Speaks, why not try to cure the 'neurotypicality' they identify with health and normality? Neurodiversity advocates claim that proposing to cure a 'neurotypical' would be on a par with curing a gay, black, left-handed or autistic individual: if the one were legitimate, so would be the others. But none are pathological conditions, only ways of being (Harmon, 2004a, 2004b, 2004c).

For disability studies theoreticians, such a perspective transforms the dominant discourse of dependency and abnormalcy into the celebration of difference and an assertion of pride that goes beyond the circle of the disabled, their families, physicians and caretakers, into the domain of public health and educational policies (Corker, 1999; Swain and Cameron, 1999).

If you do not believe there is a disability, if you do not believe there is anything that needs to be 'cured' or genetically prevented—that disability is indeed little more than a social construction—then you will likewise be freed from the need for a cure. (Cheu, 2004: 209)

Against this background, 'deaf culture' has inspired the development of 'autistic culture'. <sup>20</sup> The internet has become the privileged agent for forming advocacy and support networks, thus beginning to do 'what was thought impossible, to bind autistics together into groups' (Singer, 1999: 67). It has been said to be for autistics what sign language is for the deaf or Braille is for the blind (Blume, 1997a). Self-advocates thus craft themselves as a 'new immigrant group online, sailing to strange neurological shores on the internet' (Blume, 1997b).

The internet, in short, is the vehicle for new forms of 'biosociality' (Rabinow, 1992). Prominent among the phenomena sustained by websites and blogs is the emergence of a specific self-advocate vocabulary for categorizing persons (Bagatell, 2007): Aspie, Cousin (someone who is not clinically autistic but still similar enough to autistic people to be part of their culture), NT, Autistic or Autie (preferred to the politically correct 'person with autism'), or Curebie (derogatory term for those who wish to cure autism). Websites also recommend fictional and specialized science literature; various online support organizations, blogs and chat rooms facilitate interaction among autistic individuals, provide clarifications on symptoms, enable the sharing of experiences, and help autistics make friends or find partners (Chamak, 2008; Jurecic, 2007; Silverman, 2008a, 2008b). All of this combines to promote awareness and empower a culture that since 2005 has had its own Pride Day (18 July), an initiative of Aspies for Freedom.<sup>21</sup>

Websites like http://cafepress.com/proudlyautistic include a marketplace where 'proudly autistics' can purchase T-shirts, tote bags, mousepads, stickers, postcards, greeting cards,

<sup>20</sup> Padden and Humphries (2006); see URL: http://www.wrongplanet.net and www.autisticculture.com for particularly interesting and informative websites.

<sup>21</sup> See the entry, 'Autistic Pride Day' at Wikipedia: http://en.wikipedia.org/wiki/Autistic\_Pride\_Day

that proclaim 'No more "Trained Seal" treatments!' (against ABA), 'Not Being Able to Speak is Not the Same as Not Having Anything to Say', or 'I am Autistic. What's your excuse?' As Bagatell (2007) shows in the case of Ben's 'coming out' as an autistic, these objects may function as powerful 'tools of identity'. Ben's trajectory recalls the gay and lesbian 'coming out', which can be understood as political act with important consequences, either liberating or destructive (Davidson, 2008; Valentine et al., 2003).

## Identitarian issues: being autistic or having autism?

Parent and professional associations which search for a cure for autism usually refuse to acknowledge the very existence of an identity issue. For them, autism is simply a disease. Children are not autistic, they have autism. As Kit Weintraub (2005), mother of two autistic children and a board member of Families for Early Autism Treatment, wrote in response to autistic self-advocate Michelle Dawson's 'The misbehavior of behaviorists: Ethical challenges to the autism-ABA industry' (2004):

I love my children, but I do not love autism. My children are not part of a select group of superior beings named 'autistics.' They have autism, a neurological impairment devastating in its implications for their lives, if left untreated.... In other words, it is no more normal to be autistic than it is to have spina bifida. (Weintraub, 2005)

Although online discussion groups demonstrate that some autistics do not see their condition as a positive part of their selves (Brownlow, 2007), others do consider it as defining who they are. Autism, they argue, is 'pervasive, it colors every experience, every sensation, perception, thought, emotion, and encounter, every aspect of existence' (Sinclair, 1993). This is also the reason why many activists adopt the self-descriptions such as 'autistic' or 'aspie', which present autism as an integral part of their identity (Silverman, 2008b). For autism rights activist Jim Sinclair (1999), 'person with autism' suggests that autism 'is something bad—so bad that is isn't even consistent with being a person'. And Michelle Dawson thinks that using it would be as bizarre as using 'person with femaleness' to designate a woman (quoted in Harmon, 2004c). Attitudes to cure and therapies are consistent with positions vis-à-vis identity.

As mentioned, autistic identity is sometimes experienced as a source of pride, some go so far as seeing it as a 'gift' (Antonetta, 2005). Even high-functioning autistics who do not experience their disorder as a gift have reported the 'comfort' they felt upon being diagnosed. 'Finally an explanation, finally a sense of why and how', wrote a man diagnosed with Asperger Syndrome at age 36, shortly after his 4-year-old was diagnosed with the same disorder (Shapiro, 2006). Ian Hacking (2006) has noted that '[m]any misfit adults now recognize themselves as autistics, or so they say. It really helps to be able to put a label to your oddities. It brings a kind of peace: so that is what I am.' Judy Singer (1999: 62) expounds on the 'benefits of a clear identity', and self-advocate Jane Meyerding (2003) speaks of an 'aha! moment', when she came across autism as an explanatory system. She thereby found a community whose thought patterns and language were more compatible with hers: 'All my life, I have been forced to translate, translate, translate. Now, suddenly, I have people who speak my own language.' Autistics may use the diagnostic label positively; the autism language generates 'signposts' and 'shorthands', as Meyerding says, that enable autistics to position themselves with respect to the surrounding culture. Labeling metamorphoses from stigma to instrument of liberation.

The identitarian affirmation is often associated with a rejection of psychological explanations and psychotherapies. The latter are a waste of time if not downright dangerous.<sup>22</sup> Autistics counter psychology with a 'neurological self-awareness' (Singer, 1999) that is abundantly explored online, and that allows them to bypass the medical establishment.

As highlighted by the very notion of neurodiversity, autistics' identitarian assertion is often linked to the cerebralization of their condition. As T.M. Luhrmann (2000) has shown in her ethnographic account of American psychiatry, the biologization and neurologization of mental illnesses often does away with the subjective and experiential dimension of the disease. This has a positive consequence, since 'the body is always morally innocent'. Talking about her own experience of manic depression, anthropologist Emily Martin (2007: 13) recounts: 'I often heard from my psychiatrist that my problem was related to my neurotransmitters, and I always found this comforting.' In contrast, 'if something is in the mind, it can be controlled and mastered, and a person who fails to do so is morally at fault' (2007: 8). When a biologically oriented psychiatrist speaks of depression as a cardiologist speaks about cardiopathies, a space is introduced between the patient and the disease. When Mrs D was informed she was suffering from physical depression, the diagnosis 'objectified her distress and shifted it away from her interpersonal concerns', directing them towards an 'impersonal causal realm' (Kirmayer, 1988: 72).

In contemporary biological psychiatry, depression and psychoses appear as ailments 'written on the body' (Luhrmann, 2000: 6). For all the criticism that 'blaming the brain' (Valenstein, 1998) may deserve, we should still acknowledge that it freed both patients and their kin from blame for manic depression, eating disorders, anorexia, autism or schizophrenia. Take, for example, the case of families with schizophrenic children who financially support neuroimaging research. Their support of a purely cerebral approach (Dumit, 2004) is connected to the widespread rejection of Frieda Fromm-Reichmann's infamous schizophrenogenic mothers. But it also reflects the conviction that physical ailments can be cured, should be covered by health insurance and benefit from other forms of compensation (Martin, 2007). As it turns out, it is easier for patients and their relatives to accept a diagnosis of bipolar disorder than one of manic depression (or manic depressive illness). In the latter case, 'mental illness is in your mind and in your emotional reactions to people. It is your "you" ' (Luhrmann, 2000: 6). In contrast, a cerebral disorder is only connected to the body.

It does not follow that biological explanations of mental illness do not have identitarian effects at all. On the contrary, they may facilitate new ways of bringing together patients, families and scientists to spread information about the condition, combat stigma, support patients and drive the search for treatments (Gibbon and Novas, 2008; Rose, 2007).

<sup>22</sup> A female diagnosed with autism testified that, after spending her teens 'in a state of suicidal clinical depression as a result of bullying and feeling that I must be a failure or insane for being different', she found this opinion 'only reinforced by the psychotherapist I got sent to, who decided that all my problems must be the result of "sexual repression". Proud to have 'walked out after six sessions', she sees being diagnosed as an autistic as 'the best thing' that ever happened to her (quoted in Blume, 1997a).

Within the neurodiversity movement, cerebralization sustains a 'naturalized' identity: I am an autistic (rather than have autism), because my brain is 'wired' in a certain way. Ian Hacking (1995, 2002) has described the 'looping effects' of diagnostic labeling, and distinguished two processes: labeling from above and from below. It is mainly through labeling from below—from the patients rather than the doctors—that identity positions evolve among people diagnosed with cerebralized conditions. For self-advocates, the neurologization of autism opens the way to redefining it in terms of cerebral difference.

It is important to recall that no consensus has been reached concerning the etiology of autism. Contemporary research uses several approaches to define biological markers. Nadesan (2005) identifies three trends: the search for the characteristics of the 'autistic brain,' the quest for an autism genotype(s), and research on co-morbidity and environmental influences. Psychiatrists and neuroscientists have looked for the disorder's 'brain address' (Wickelgren, 2005: 1856), viewing autism as a brain dysfunction (Fombonne, 2003; Freeman and Cronin, 2002; Wing, 1997), and have even suggested that the autistic brain is an extreme form of the 'male brain' (Baron-Cohen, 2002). Nevertheless, as Nadesan (2005: 172) points out, 'the contemporary state of the research cannot provide any definitive, conclusive, and generalizable answer to the question of how autism emerges'. Neither is there consensus about the methodology to be used in clinical interventions (Feinberg and Vacca, 2000; Newschaffer and Curran, 2003).

In contrast, self-advocates seem to largely agree on the etiology of autism. Several discussion groups emphasize the cerebral nature of the disorder (thought of as a difference) or the importance of genetic factors. Temple Grandin is absolutely certain than autism 'is a neurological disorder. A child is born with it. It's caused by immature development of the brain that's been verified by brain autopsy studies—and not by bad parenting or the environment' (quoted in Blume, 1997a). Similarly, Dutch self-advocate, Martijn Dekker (2006), affirms that autism 'is neither a physical (bodily) disability, nor a mental illness: it is a neurological disability.' His making the brain something different from the body (when it so obviously is a bodily organ) illustrates the special ontological and functional status attributed to the brain.

All sides of the autistic community recognize a genetic and/or neurological origin to autism. Self-advocates' bête noire, Cure Autism Now, sponsored the creation of AGRE, or Autism Genetic Resource Exchange (Silverman, 2008a), the 'world's first collaborative gene bank for autism'. 23 The parent group Generation Rescue<sup>24</sup> is one of those who attribute autism to mercury poisoning (Bumiller, 2008). From the point of view of assessing the condition as positive or negative, its neurological nature is secondary. In contrast, for neurodiversity activists, the prestige of the neurosciences helps support their positive judgment about their condition; neuroscientific research, largely in the form of the 'wiring' metaphor, seems to legitimize their attitudes toward their diagnosis.

Charles Rosenberg's observation that 'social legitimacy presupposes somatic identity' (2006: 414) applies to both. When people diagnosed with autism fashion themselves positively as 'autistics' and not as 'persons with autism', they tend to rely on neurodiversity as a value, seen as a scientific fact. Such a preference for cerebral explanations cannot be reduced to an aversion to psychoanalysis or psychologizing in general. Rather, it emerges as part of the spread of neuroscientific claims beyond the laboratory. Neuroscientific theories, practices, technologies and therapies are shaping the way we think about ourselves and relate to others. As Blume notes, autism:

... is hardly the only—and far from the main—reason for the current elevation of neurology. The opposite may be closer to the truth: the elevation of neurology supplies us with a reason for the increasing attention being paid to autism. (1997a)

## The cerebral subject, neurosciences and neurodiversity

Whether superficial or well-informed, wacky or serious, neurodiversity advocates' engagement with the neurosciences has become a major vehicle for fashioning their personal identity. The process began about ten years ago. In 1998, Jane Meyerding relates how she was 'surprised' to find herself 'moving into the realm of neurology'. This sentence, already quoted at the beginning of this article, epitomizes a central aspect of cerebralization processes within autistic culture. Can we say that some self-advocates become cerebral subjects via their engagement with the neurosciences and their claims to *neuro*diversity? Does defining oneself as neurodiverse illustrate what Joseph Dumit (2004) has called 'objective self-fashioning', i.e. the incorporation into one's self-definition scientific or expert ideas, terms and metaphors? Answering these questions is not an easy task.

It would be necessary to undertake detailed empirical research into the different ways neuroscientific ideas and practices are taken up by autistic people in different settings. Are brain metaphors mobilized in the same sense by all self-advocates? Are there different versions of a 'brain story' (Martin, 2009)? And how do these stories work in blogs, discussion groups, autobiographies, conferences? What sort of information is being used? Is it drawn from scientific articles, popular accounts in magazines, movies or novels? Who is addressing whom, and in which arenas? How are discourses adapted to different contexts and audiences?

There is an increasing amount of social science research on these questions, conducted especially in online contexts or by means of ethnographic analysis (Miller and Slater, 2000; Wilson and Peterson, 2002), particularly working with disabled people (Goggin and Newell, 2003). The blogosphere being a major setting for the construction of disabled identities, the use of the internet, especially by blind, deaf, and autistic people, has gained considerable attention (Goggin and Noonan, 2006). As mentioned previously, the web has become an essential space of debate and identity development for autistic persons (Biever, 2007; Blume, 1997a; Dekker, 2006; Kenway 2009). A considerable number of empirical studies deal with autism in cyberspace.<sup>25</sup> Qualitative research is also being conducted on writings by autistic people, particularly autobiographies and memoirs (Chamak *et al.*, 2008; Davidson, 2007, 2008; Hacking, 2009; Osteen, 2008). Books such as *Voices from the spectrum* (Ariel and Naseef, 2006) collect first-hand accounts by parents, siblings,

<sup>25</sup> See Brownlow (2007), Brownlow and O'Dell (2006), Clarke and van Amerom (2007, 2008), Davidson (2008), Jones and Meldal (2001), Jones et al. (2001).

people diagnosed with autism and mental health professionals. Ethnographic accounts examine identity construction by autistic individuals (Bagatell, 2007; Jurecic, 2007).

The range of subjects is very broad, encompassing differences in parents and patients' understanding of autism, issues of social interaction and alienation, perceptual differences and sensory distortion, the expression and management of emotion, comprehension and communication difficulties, desire and relationships, the role of the internet and of a supportive community, diagnosis, self-diagnosis and the role of 'expert' knowledge. Issues of autistic identity and their demarcation from neurotypical identities have been less studied, and the same applies to the ways self-advocates draw on brain metaphors and neuroscientific knowledge. In what follows I will provide some materials relevant to these issues, taken mainly from the internet and published studies. They are meant to be examples of the 'neurological self-awareness' and 'preference for neurology' stated by some self-advocates (Singer, 1999).

Muskie, creator of the website for the Institute for the Study of the Neurologically Typical, whom we have already met, declares: 'My brain is a jewel.' 'I am', he writes, 'in awe of the mind that I have. I and my experience of life is not inferior, and may be *superior*, to the NT experience of life.' Though also branded a 'Curebie,' Aspie Michael John Carley (whose son has been similarly diagnosed) rejoices:

I love the way my brain works, I always have and it's one of the things I can now admit to myself. I like the way I think in terms of numbers. I like the way I visualize things. I like the way most especially that I can bury myself in work that I love to a degree that makes everybody else in the world looks [sic] at me and go, "God! I wish I could do that." No, I am not changing anything. (quoted in Shapiro, 2006, emphasis added)

Self-advocate Meyerding (1998) illustrates a similar reification of the brain when she notes that her employer and friends 'think they have conveyed what it is they expect me to do, but they have been speaking in a language my brain doesn't understand'.

Note how these testimonies slide without warning from 'my brain' to 'I': I love the way my brain works; I like the way I think; those people speak to me in ways my brain doesn't understand. This language suggests that individuals are brains and in any case brains are personified. The creator of the audio post Asperger's conversations<sup>26</sup> asserts that 'we are a world of funny brains' (emphasis added), and that '[n]euroscience will help us to understand and appreciate the new mix'. Instead of curing autism, some activists propose curing 'Neuro-bigotry', <sup>27</sup> while others dream of Aspergia, a utopian, autism-friendly 'neuro city'. <sup>28</sup> Grandin claims that 'marriages work out best when two people with autism marry ... because their intellects work on a similar wavelength' (quoted in Silberman, 2001, emphasis added). Danni's blog, by an English self-advocate who defines herself as a 'Christian Socialist Computer Addict', is filled with references to the way her brain works:

I am hating my brain.... I can't deal with the scary thoughts and brain misfiring that makes me too scared to sleep.... I need a brain transplant, or for River Tam to kill me

<sup>26</sup> http://welkowitz.typepad.com

<sup>27</sup> http://www.council-of-elrond.com/forums/showthread.php?t=7374

<sup>28</sup> http://www.aspiesforfreedom.com/archive/index.php/thread-11062.html

with her brain.... I don't want to let people down, and I'm even less reliable now than I was before my *brain* went all bad-funky.... I had an appointment with the learning support officer.... Was weird, as my brain wasn't working right.... By this point my brain was making weird associations.... My brain feels all sluggish and blocked.... My anxiety is pretty bad and I have other brain weirdness things that mean that normal coping methods and stuff don't help.... I can't do the homework, partially because ... my brain weirdness is getting worse. If I fail it, I can retake it (most likely when my brain is working better). It can be hard when my brain is hating me and I'm struggling to keep calm.<sup>29</sup>

Recurrent references to the brain can also be found in other blogs, like that of Dora Raymaker, an activist from Portland, co-director of the Academic Autistic Spectrum Partnership in Research and Education and a member of the Autistic Self Advocacy Network's Board of Directors. In a post on 'Identity politics and the language controversy' she recounts:

My brain has been terribly 'sticky' on a proposal I'm writing for a conference presentation, and tearing my brain away to even read a news story let alone write about it has failed some uncountable number of times. And not only has my brain been sticky on the topic of the proposal but my brain's been sticky on identity politics and language.30

We could give many other examples of such language. The question is, what do these individuals mean when they say their brains are jewels or that they hate their brains, refer to their brains' weirdness or wavelengths? Do they mean that they are their brains, that their identity and subjectivity can be reduced to brain neurochemistry and processes? They presumably do not believe they are just their brains, and yet they rely on brain metaphors to talk about themselves. And they do it because they live in a cultural context where neuroscientific claims are largely spreading within different domains of life. This creates a favorable backdrop for individuals to draw on these claims to speak about themselves and others.

Sometimes 'brain' and 'mind' are interchangeable: Muskie simply juxtaposes 'My brain is a jewel' with 'I am in awe of the mind that I have.' But he is clearly talking about the same thing, and the same applies to Carley's enthusiasm about how his brain works. The brain sometimes stands metonymycally for the person or 'I', as when self-advocates write 'my brain doesn't understand', 'whatever phrase that non-voluntary portion of my brain happens to be using' or 'we are a world of funny brains'. On other occasions, the state of the brain, or a state of being, evokes a feeling of self-reproach: 'sometimes I hate my brain or my brain hates me'-but that seem to mean that the brain hates itself, when my brain is said to feel 'all sluggish and blocked'. Of course, the brain is also the agent of more cognitive experiences, such as when it is not 'working right' or makes 'weird associations'.

Neuroscientific metaphors and terms are employed to 'construct' a difference between neurotypicals and people on the autistic spectrum that is a 'real,' 'natural' difference

<sup>29</sup> http://dannimatzk.co.uk (emphases added).

<sup>30</sup> http://autism.change.org/blog/view/identity\_politics\_and\_the\_language\_controversy (emphasis added).

(Brownlow, 2007; Brownlow and O'Dell, 2006). Neurology is used to justify and naturalize the constructed differences, as when a self-advocate writes:

I know they are all individuals, and that we shouldn't blame every NT for the action of every other NT ... but there is a common thread that ties them together, and it is at the core of their being. It is more than cultural; it is how they are hardwired from the factory. (quoted in Brownlow and O'Dell, 2006: 319, emphasis added)

#### Meyerding too neurologizes difference:

... here came neurology and the possibility that my brain really was different.... If I could understand my life for the first time only by understanding how my brain was different from the majority of brains, how much did I really have in common with all those neuro-typicals (NTs) out there, compared to whom I'd been judged inadequate so many times? ... Imagine my surprise, then, when I realized I was able to feel 'aligned' with this disparate group of individuals joined together by neurological differences.... My brain works somewhat differently from most brains (from 'normal' brains).... Most of the ways I'm different from the neural norm can be disguised as eccentricities. (Meyerding, 1998, emphasis added)

Brain metaphors and differences are frequently mobilized to construct autism in a positive light while NT is largely depicted in negative terms. Both groups, however, believe in the 'neurological origins of [their] exclusiveness' (Brownlow, 2007: 138; Brownlow and O'Dell, 2006: 319). Neurology thus functions as an instrument to erect identity frontiers. By a largely rhetorical reversal of the normalcy discourse, autistics may stress NTs' strange behavior and satirically pathologize neurotypicality. Once he realized 'how bizarre and illogical the NTs really are', self-advocate Archie found 'that their comments and insults' had a greatly reduced effect; he could not 'blame the people that are afflicted with neurotypicality', but, he remarked, 'that does not mean that I am obligated to change my views to see values in traits I dislike' (quoted in Brownlow, 2007: 140-141). Neuroscientific claims are mobilized in the construction of NT and autistic experiences so as to highlight their natural difference, yet at the same time even extreme self-advocates know how inextricably they are linked to the NT world. It would be unfeasible, for example, to keep the utopian island of Aspergia free from NTs: 'if an aspergian man and woman get married and have an NT child would we have to kick it out of the country?'31

The counterpart of the construction of differences as ontologically real because they are based on neurological divergence is the belief in a certain ontological homogeneity. Although autism is considered a spectrum, some self-activists reject the distinction between 'low' and 'high-functioning' autism, and consider differences across autistic populations as variations of degree not due to fundamental 'underlying neurological differences' (Nadesan, 2005: 208-209). In 2002 Jane Meyerding explained that, since her well-known essay, 'Thoughts on finding myself differently brained', published in 1988, she has 'come to believe that the categorization of people into separate boxes labeled "Asperger Syndrome" and "autism" (or "high-functioning autism") is seriously misleading, and she now prefers to

identify herself 'as autistic, period'. 32 Identity politics here implies essentializing neurological uniqueness and typologizing brain difference.

Ontological homogeneity is to a large extent a linguistic effect. The world of autistic self-advocacy offers the same phenomenon anthropologist Emily Martin observed during her fieldwork on bipolar disorder: remarks about the brain seemed to be 'like clones: endlessly replicating but not generating new connections' (Martin 2009: 7). The brain works like a 'confining metaphor' that cuts off links among domains and groups of people. And yet the brain-centered vocabulary—a 'folk neurology' (Vrecko, 2006) or the 'folk neurosychology' (Rodriguez, 2006) favored by eliminative materialists (Churchland, 1981)—has not replaced psychological descriptions of subjective experiences. No amount of neuroscientific progress can suffice to make the mind go away; as Emily Martin (2000: 575) writes:

If a more reductionistic and brain-based picture of human action displaced our current everyday mental concepts, it would not be because (or solely because) the neural net theory had won in the court of scientific opinion. It would be because the environment we live in (and that scientific theories are produced in) had shifted so that a braincentered view of a person began to make cultural sense.

The neurodiversity universe thus exhibits a cohabitation of everyday ontologies. When acting, thinking or speaking about themselves and their relations to others, individuals shift ontological registers and, as we have seen, 'my brain' may in their language serve to designate 'my mind' or, perhaps more precisely, just 'I' or 'me'. Presumably this does not mean that people do not know what they are talking about, and say 'brain' when they mean 'mind'. Rather, the metaphors and metonymies express a more or less harmonious cohabitation of everyday ontologies of the self, while at the same time contributing to give a bodily organ—the brain—the kind of psychological depth usually, or formerly, attributed to the mind.

The interpenetrations of mind and brain at work in the neurodiversity context reflect the persistence of important continuities behind updated vocabularies, and this is typical of the entire neurocultural world. For example, behind its neuroscientific varnish, the neurobics market that has been growing since the 1990s does little more than carry on, in updated form, self-help regimens that sometimes date back to John Harvey Kellogg's late nine-teenth-century hygiene and diet prescriptions (Ortega, forthcoming).

# Identity politics and the 'neuroscience revolution'

The combination of 'neuro' and 'diversity' is by no means self-evident. Difference and singularity are localized so as to thoroughly naturalize or, rather, physicalize human identity. Of course, research on neuroplasticity suggests that experience shapes the brain in hitherto unimagined ways and to an unexpected extent (Merzenich and Jenkins, 1994). A considerable number of studies demonstrate how networks of neurons are formed and changed by habits, conscious decisions, acts of the will or attention, physical exercises, food intake or meditation practices. As a result, diversity, singularity and creativity are being shifted to

the brain. Neuroscientific research, however, is also characterized by the search for regularities and neuroanatomical and neurophysiological constants that would make it possible to distinguish (eventually on the basis of neuroimaging) between an autistic brain, a depressed brain or even a schizoid brain and a normal brain (Dumit, 2003, 2004). Much neuroscience aims at locating the brain structures of circuits responsible for normal and pathological mental states. This brings about a paradoxical situation: while neuroplasticity helps account for neurodiversity, neurodiversity advocates tend to homogenize neurodiverse brains and minimize their differences so as to support their claims for the existence of a brain-based autistic identity. Thus, the 'autistic brain' is displayed as ontological homogeneous and radically different from the also homogeneous 'NT brain'.

Disability studies scholars have noted how the celebration of disability can relate to an emphasis on differentiating comparisons and even hostility towards non disabled people (Swain and Cameron, 1999). Self-criticism, however, is gaining ground within the neurodiversity movement. Sinclair (2005) has condemned anti-NT prejudice, and some Aspergers consider Aspergia as an 'Aspie "Warsaw ghetto", 33 Judy Singer herself has recently warned that the movement is walking on the 'dark side' of identity politics, through 'its eternal victimhood, its infantilism, its demand for unconditional love and acceptance without concomitant adult self-reflection, self-criticism, a measure of stoicism, and a willingness to see light and dark in oneself as well as in "the Other" (Singer, 2007).

Singer's criticism implies that self-advocates' use of brain-related terms has contributed to concealing individual and institutional dimensions that it would be better to discuss openly. The brain is a 'confining metaphor' (Martin, 2009) not open to other domains. Brain identity tends to hide conflicts, denial, repressions and other uncomfortable processes going on consciously or unconsciously. In her description of Ben's construction of a positive autistic identity, Bagatell (2007: 423) observes that the task of orchestrating the different discourses around him produced 'a lot of discomfort—depression, anxiety and sensory overload—and he desperately wanted relief'. One of the bipolars interviewed by Emily Martin (2009: 16) remarked that his 'brain contains both health and illness, strength and weakness, darkness and light'. Self-advocates tend to neglect such tensions and the fact that, as Singer (2007) points out, 'not all is for the best in this brave new world that the "neuroscience revolution" delineates'. Also, some people in the anti-psychiatry movement 'fear that the neurodiversity movement too readily embraces a neurological and medical model for all human behavior'. 34 If, on the one hand, seeing oneself as a cerebral subject bolsters one's sense of identity and helps erase the social stigma often associated with mental pathology, it may, on the other hand, somewhat solipstistically narrow the notion of what it is to be a person. Such, then, are the dilemmas and controversies of the neurodiversity movement. Its own members' search for community and relation is in tension with its own reductionistic identity politics, in which selves result from the mechanics of the brain.

The neurodiversity movement can serve as a critical text case for those who believe that 'the neurosciences have irrevocably dissolved the Judeo-Christian image of a human being', and therefore have generated an ethical vacuum in which nothing 'could hold society

<sup>33</sup> http://www.aspiesforfreedom.com/showthread.php?tid=11062

<sup>34</sup> http://everything2.com/title/neurotypical

together and provide a common ground for shared moral intuitions and values'.35 We see, on the contrary, how a solipsistic and reductionist ideology that turns humans into cerebral subjects has served as the basis for identity formation along with social and community networks. We could therefore paraphrase Foucault and state that every 'dispositif' of knowledge/power which functions as a mechanism of subjection, opens up a possibility for resistance. Autistic self-advocates must therefore navigate between their cerebralistic identity politics, and their quest for significant forms of sociality.<sup>36</sup>

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- 35 See Metzinger (2009: 213); I am grateful to Nicolas Langlitz for calling my attention to this reference.
- 36 Whereas the radicalism of some self-advocates in the US, Canada and Australia seems to be walking toward the 'dark side' of identity politics by essentializing neurological uniqueness and typologizing brain difference, this does not seem to be the case in countries like France or Brazil.

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