Is Autism a Mental Disorder According to the Harmful Dysfunction View?

Bošnjak, Mladen

Croatian Journal of Philosophy
Vol. XXIII, No. 67, 2023
https://doi.org/10.52685/cjp.23.67.5
Received: December 29, 2021
Accepted: October 5, 2022

Is Autism a Mental Disorder According to the Harmful Dysfunction View?

MLADEN BOŠNJAK
University of Rijeka, Rijeka, Croatia

The supporters of the neurodiversity movement contend that autism is not a mental disorder, but rather a natural human variation. In a recent paper Jerome Wakefield, David Wasserman and Jordan Conrad (2020) argued against this view relying on Wakefield's harmful dysfunction theory of mental disorder (the HD theory). Although I argue that the HD theory is problematic, I contend that arguments offered by Wakefield et al. (2020) against those of the neurodiversity movement are plausible, except in one respect: their claim that high functioning autism in general is not a disorder is not well supported. I argue instead that the disorder status of high-functioning autistic persons should be judged on a case-by-case basis, depending on the harmfulness of the condition. In this regard, I maintain that the list of basic psychological capacities provided by George Graham (2010) provides an adequate conceptualization of harm. Moreover, I show how this framework may offer an appropriate tool for a case-by-case assessment of harm associated with high-functioning autism.

Keywords: Autism; neurodiversity movement; social model of disability; harmful dysfunction; harm in psychiatry; basic psychological capacities.

1. *Introduction*

Since Leo Kanner (1943) introduced the notion, there have been many controversies around it, including whether it is a mental disorder (Wakefield, Wasserman, and Conrad 2020). The disorder status of autism is relevant for determining treatment and other appropriate social responses to the condition like, for instance, the criminal responsibil-

ity of autistic offenders (Bošnjak 2022, Malatesti, Jurjako and Meynen 2020). While the medical view is that autism is a mental disorder (APA 2013, Cushing 2018), proponents of the neurodiversity movement disagree (Blume 1998, Meyerding 2014, Sinclair 1993, Armstrong 2015, Chapman 2019, Jaarsma and Welin 2012, Ortega 2009, for discussion see Hughes 2021). Jerome Wakefield, David Wasserman, and Jordan Conrad (2020) have recently made progress on this issue by discussing it in the context of an account of mental disorder. This is Wakefield's influential harmful dysfunction analysis of mental disorder (HD for short) (see Wakefield 1992, 2007, 2014).

The aim of this paper is to discuss Wakefield et al.'s (2020) criticism of the arguments advanced by the advocates of the neurodiversity movement who deny that autism is a mental disorder. Although I do not subscribe to all aspects of Wakefield´s HD account of mental disorder, I agree with Wakefield et al.'s (2020) rebuttals of the arguments offered by the proponents of the neurodiversity movement. However, I question their claim that high functioning autism is most likely not a disorder. I argue that a general conclusion on this matter cannot be decided in advance for all cases. Rather, it should be decided on a case-by-case basis depending on how and in what way high-functioning autistics are harmed by their condition, if they are harmed by it at all. However, the HD view does not offer a helpful account of harm to adjudicate this question. To make progress on this problem, I argue that the list of basic psychological capacities offered by George Graham (2010) provides an appropriate elaboration of the concept of harm and a useful framework for such a case-by-case assessment of harm that is relevant for mental disorder.

In the paper, I proceed as follows. I first present the conceptualization of autism spectrum disorder as depicted in the fifth edition of the *Diagnostic Statistical Manual* (from now on DSM-5, American Psychiatric Association, APA, 2013). Then I move on to present the claims of the supporters of the neurodiversity movement. I contend that a proper evaluation of their arguments should be based on the backdrop of a general account of mental disorder. I argue that the evaluation of these arguments, offered by Wakefield et al. (2020) is convincing. Nonetheless, I criticize Wakefield´s account of mental disorder (1992, 2007, and 2014) and opt for a more general hybrid account of disorder that does not rely on a specific notion of dysfunction. Finally, I rely on the list of basic psychological capacities offered by George Graham to address the issue of the disorder status of high-functioning autism.

2. *Autism in the DSM-5*

According to the DSM-5, autism spectrum disorder is a neurodevelopmental disorder characterized by a lack of empathy, a deficit in verbal and nonverbal communication, difficulties in understanding and maintaining human relationships, having a limited range of interests,

repetitive behaviors, and problems in adjusting behavior to different circumstances (APA 2013: 299.00; F84.0).

Symptoms are divided into two categories: (1) Social Communication and (2) Restricted and Repetitive Behaviors. The DSM-5 differentiates three levels of symptom severity: level 1 ("Requiring support"), level 2 ("Requiring substantial support") and level 3 ("Requiring very substantial support"). Level 1 includes autistics who live independently and have a satisfactory quality of life despite problems in social communication and struggles in adapting to changes, starting and maintaining conversation, and having lower interest in social interaction. These obstacles require behavioral therapy. Level 2 encompasses autistics with social impairments, decreased verbal and nonverbal communication abilities and slight behavioral inflexibility (e.g., difficulties in dealing with changes, limited interest, and lower reactivity to social cues). They need assistance and therapy to achieve a good quality of life. Level 3 covers autistics with minimal social interactions, who mostly lack the ability to speak. They have significant problems in everyday functioning and adapting to environmental changes.

In the previous edition of the DSM, the terms *Asperger syndrome,* and *Pervasive Developmental Disorders—Not Otherwise Specified* were used to mark autism of level 1, *Rett syndrome* and *Childhood disintegrative disorders* to mark level 3 autism (APA 1994: DSM IV). In the newest edition, these categories were placed on a single spectrum. Thus, autism is a heterogeneous disorder, including people with severe learning and verbal impairments as well as high-functioning individuals with a potentially outstanding IQ (Feather 2016).

From the medical perspective described in the DSM-5, autism is a mental disorder. Mental disorder in the DSM-5 is defined as follows:

> A mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities. An expectable or culturally approved response to a common stressor or loss, such as the death of a loved one, is not a mental disorder. Socially deviant behavior (e.g., political, religious, or sexual) and conflicts that are primarily between the individual and society are not mental disorders unless the deviance or conflict results from a dysfunction in the individual, as described above. (DSM 5: 20).

Autism satisfies the above definition of mental disorder because it typically involves "disability in social, occupational, or other important activities" which appear in early developmental period and are thought to be caused by some kind of neurobiological dysfunction (for an overview of the dominant theories of autism, see Fletcher-Watson and Happe 2019). Since autism is included in DSM and it satisfies the above definition of mental disorder, the default position among the medical practitioners seems to be that autism is a mental disorder.

However, self-advocate autistics (both within and outside academia) (Blume 1998, Meyerding 1998, Sinclair 1993, Chapman 2019) and other academics (Armstrong 2015, Jaarsma and Welin 2012, Ortega 2009) argue that autism is a normal human variation in brain functioning. Thus, the proponents of the neurodiversity movement claim that autism is not a mental disorder, or that at least some of the autistics on the spectrum should not be considered as having a disorder. Arguments of such type usually presuppose a specific view about what it means to be disabled in everyday functioning. So, in the next section I provide a short overview of the disability theory which is relevant for understanding the arguments advanced by the neurodiversity movement supporters.

3. *The neurodiversity movement against the medicalization of autism*

Many of the claims endorsed by the neurodiversity movement are often based on the backdrop of a family of views that fall under the *social model of disability*. In what follows, I provide an overview of the main claims underlining this model.

Many influential publications on disability distinguish between impairment and disability. On the one hand, impairments are seen as "problems in body function or structure such as a significant deviation or loss" (World Health Organization 2001: 10). On the other hand, in various documents such as the *International Classification of Functioning, Disability and Health,* the U.N. *Standard Rules on the Equalization of Opportunities for People with Disabilities*, the *Disability Discrimination Act* (U.K.), and the *Americans with Disabilities Act* (U.S.), disability is construed as "(1) a physical or mental characteristic labeled or perceived as an impairment or dysfunction … and (2) some personal or social limitation associated with that impairment" (Wasserman et al. 2016).

There are two principal perspectives on disability: the medical and the social model. According to the medical model, the physical or mental incapacities of people cause the barriers that limit their daily functioning. In contrast, the social model emphasizes society's role in limiting the daily functioning of people considered as disabled. Thus, the focus, instead of being on the characteristics of the person as in the medical model, is on the inappropriate environment and social organization (Wasserman et al 2016). For example, it is not the bodily or physical impairments which render most buildings in the city of Rijeka inaccessible for wheelchair users, but the absence of ramps and elevators.

Some of the claims made by the supporters of the neurodiversity movement are also related to claims made by supporters of movements for civil rights, such as the movement for LGBT rights, as well as with the antipsychiatry movement. Both the neurodiversity and antipsy-

chiatry movement agree that psychiatry is often used as a means of oppressing people whose behavior does not fit with the prevailing social norms and values. Some also argue that severe autism should be treated and thus considered a mental disorder (for more about this topic, see Graby 2015). However, the proponents of the neurodiversity movement argue that the need for specific resources for autistics does not imply that autism should be considered a mental disorder (Nicolaidis 2012, Den Houting 2019, Legault et al. 2019, Legault et al. 2021). In other words, promoting an ideal of social justice and change in policies and arguing for a more adequate view of autism as non-disorder are not mutually exclusive. It is important to keep in mind that one of the main aims of the neurodiversity movement is to combat stigma. This motivates the most radical proponents of the neurodiversity movement to even deny the disorder status to the whole autism spectrum. I think that the aims of the neurodiversity movement such as destigmatization and equal rights of autistics persons are very desirable. Nonetheless, I think that the denial of the disorder status is not the right approach to achieve these goals. I strongly believe that it is consistent to claim that autism is a mental disorder and at the same time to demand equal rights and to fight against stigma. Moreover, I think that philosophers can offer theoretical frameworks and arguments for reconciliation between the medical perspective on autism and the neurodiversity movement (see, e.g. Nelson 2021)

However, before examining the claims of the supporters of the neurodiversity movement, we need a general framework within which we might evaluate them. Relevant for our context is a framework that can help us to decide whether a condition is a mental disorder. Thus, in what follows, I turn to this issue.

4. *A harmful dysfunction account of mental disorder*

A useful way to approach this issue is offered by Jerome Wakefield, David Wasserman and Jordan Conrad (2020). They presuppose Wakefield's influential account[1] of mental disorder (e.g., 1992, 2007, and 2014). The core of the account is summarized in the following quote:

> A condition is a disorder if and only if (a) the condition causes some harm or deprivation of benefit to the person as judged by the standards of the person's culture (the value criterion), and (b) the condition results from the inability of some internal mechanism to perform its natural function, wherein natural function is an effect that is part of the evolutionary explanation of the existence and structure of the mechanism (the explanatory criterion). (Wakefield 1992: 384)

Wakefield relies on an etiological theory of natural function (see, e.g. Šustar and Brzović 2014). According to this theory, natural func-

[1] For an overview of theories of mental disorder, see, e.g. Cooper (2007, ch. 3) and Bolton (2006).

tion of some system is determined by its evolutionary history, i.e., by natural selection, which "designed" the system to perform a particular function. For example, we can ascertain that the function of the heart is to pump blood because organisms that had organs with such a capacity during evolutionary history outlived and left more offspring than their conspecifics.

Wakefield thinks that if a condition is a mental disorder then it must be both harmful and caused by a dysfunctional physical or psychological mechanism. The following two examples illustrate these two components. Even if there was a dysfunction in the case of homosexuality, this condition is not a disorder because it is not by itself harmful. If homosexuality is associated with harmful consequences, then this harm would be extrinsic, most likely caused by negative and stigmatizing attitudes of the other members of the society. Alternatively, in the case of antisocial personality disorder (ASPD), a person with ASPD is harmed because their behavior often gets them into trouble for which they spend much time in prison. However, such a condition would not be a disorder unless it is underpinned by a psychological or biological dysfunction (Jurjako 2019).

There are several reasons for adopting something akin to Wakefield's hybrid or two-component account of mental disorder. First, Wakefield's account is extremely influential and has been used to discuss and adjudicate the disorder status of many conditions and symptoms, including delusion (e.g. Lancellotta and Bortolotti 2020), misbelief (e.g. McKay and Dennett 2009) and psychopathy (e.g. Jurjako 2019). Second, in broad strokes, Wakefield's account nicely fits with how mental disorder is conceptualized in the dominant psychiatric diagnostic manuals, such as e.g., DSM and ICD (Murphy 2006: 35; Biturajac and Jurjako 2022; cf. Amoretti and Lalumera 2019). The third reason is its explicit inclusion of the notion of harm, which I take to be indispensable for thinking about the nature of disorder (see, also, Biturajac and Jurjako 2022). I maintain that the key role of medicine (but not the only one) is to cure or treat disorders. But if some condition is not harmful, there is, *prima facie*, no reason to cure or treat it, and, thus to think of it as a disorder. Of course, we often medically treat conditions that are not disorders, such as pregnancy. Nonetheless, we can all agree that even in such cases, the default presupposition is that there is no medical reason to treat a condition if there is no dysfunction that might actually or potentially harm a person.

Despite the positive sides of Wakefield's HD account, it still relies on some controversial assumptions. In fact, both the dysfunction and harm aspects of HD have been extensively criticized (see, e.g. McNally 2001; Bolton 2006; Murphy 2006; Bingham and Banner 2014; Murphy-Hollies 2021). More specifically, some argue that there could be disorders whose causal basis is a consequence of adaptation (see, e.g. Garson 2021). For example, a person who has been raised in an abusive environment might develop antisocial personality traits as a developmental

adaptation to such environment. Moreover, these traits might still be adaptive if the person continues to live in uncertain, violent, and otherwise difficult circumstances. However, if such a person would be transferred to a nonviolent and friendly environment, then antisocial traits would fail to be adaptive because they would likely lead to frequent incarceration which as a consequence would cause an inability to perform normal social and occupational activities, reduction in well-being, and it would have other harmful effects (for discussion, see Jurjako 2019). This example illustrates that traits comprising a condition could be adaptive and thus functional, but still associated with a disorder. Moreover, a more general problem for relying on an etiological reading of the dysfunction component is that it is not clear whether it would be possible to practice medicine until the evolutionary role of different mechanisms and organs is discovered (see, e.g. Bolton 2006). The problem is that if we accept Wakefield's theory of mental disorder, we would not be able to determine the disorder status of many conditions that are thought to be disorders. Namely, it seems practically impossible to reliably establish whether or not some condition is caused by a failure of some mechanism to perform its evolutionary designed function because the evidence about evolutionary past of such mechanisms is not available to us, and most likely will never be.

The problem with Wakefield's view of harm is its cultural relativity and underspecificity. Wakefield (1992) typically construes harm as something that is negatively judged by our society without providing additional criteria how this might be determined (see also Wakefield and Conrad 2019). This view makes the mental disorder status relative to sociocultural standards adopted by a particular society. In this regard, Rachel Cooper (2021: 537) notes that Wakefield´s concept of harm falls short "because whole societies can be wrong in how they evaluate a condition". In addition, it is plausible to think that there are conditions, such as schizophrenia, that are associated with low quality of life, often leading to fatal outcomes, and as such can be considered as harmful regardless of the evaluative standards entrenched in a specific society in which it occurs. Moreover, even if we leave the problem of cultural relativism aside, Wakefield does not really offer a substantive view of harm that can be used to adjudicate difficult cases (see, also Cooper 2021: 538). This issue will become important once I discuss the disorder status of high-functioning autistics. I will argue that assessments of harm in the case of high-functioning autism will not be solved if we do not adopt a more concrete account of harm. Wakefield's view of harm as something that is negatively judged by our society is too vague to perform this task. To remedy this problem, in section 6, I will argue that we should adopt the list of basic psychological capacities offered by George Graham as a useful way to conceptualize harm and estimate it in the case of high-functioning autism.

For the foregoing reasons I do not accept Wakefield´s harmful dysfunction account of mental disorder in its entirety. Nonetheless, for the

purposes of this paper I adopt it insofar it evinces a hybrid view of mental disorder. In general, hybrid views presuppose that disorders have causal basis that produce harmful effects that can or should be medically treated (see e.g. Stegenga 2015, Biturajac and Jurjako 2022). For the present discussion it is not important whether such causal bases will be interpreted in terms of an etiological theory of dysfunction or some other view. The important thing is that however we understand the dysfunction part of the disorder, it should be associated with significant harmful effects.

Presupposing such a hybrid view of mental disorder, in the next section, I will provide an overview of Wakefield et al.'s (2020) discussion whether autism is a mental disorder.

5. *The harmful dysfunction view and neurodiversity*

5.1. *The essence of autism and harm*

Neurodiversity advocates often claim that autism does not involve any dysfunction that would warrant the disorder status. One interesting argument in this respect is offered by the clinical psychologist Simon Baron-Cohen who contends that while the "autistic essence" confers many advantages, many of the harms usually associated with autism are not part of the condition. The claim is that whatever harms might be associated with autism, they are only contingently associated with it. Thus, autism *per se* should not be regarded as a harmful condition that is underpinned by dysfunctions. Baron-Cohen offers this kind of argument in the following:

> Some will object that a child with autism who has epilepsy is not an example of neurodiversity but rather he or she has a disorder. And they are right. Epilepsy is a sign of brain dysfunction and causes disorder (fits) and should be medically treated. But epilepsy, while commonly co-occurring with autism, is not autism itself. Others may say that a child who has language delay or severe learning difficulties is not an example of neurodiversity but has a disorder, and I would support their demand for treatments to maximize the child's potential in both language and learning. But again, although commonly co-occurring these are not autism itself. (Baron-Cohen 2017: 744)

In response to this, Wakefield et al. (2020: 507) note that the idea of autism including an essence does not take seriously enough the heterogeneity of autism. Indeed, in contrast to the essentialist perspective, Daniel Weiskopf indicates that autism is more properly construed as "a network category defined by a set of idealized exemplars linked by multiple levels of theoretically significant properties" (2017: 175). Thus, autism as a category is not coherent enough to be considered as "an adaptive trait or a distinct perceptual and cognitive style" that would make plausible the claim that autistics have a shared essence which is distinct from the accompanying physical, psychological or social impairments (Wakefield et al. 2020: 507).

5.2. *Context insensitivity and harm*

Another argument used by the members of the neurodiversity movement is based on Uta Frith's "weak coherence" theory (Frith 1989). According to this account, autistics have a diminished capacity to incorporate data into a coherent whole. Autistics are often preoccupied with details but misunderstand relations between them and their contextual meaning. For example, an autistic person could remember all the details of a story without understanding the meaning of the whole story (Frith 1989, Happė 1999). Interestingly, Frith thinks this might be perceived as an exceptional ability to operate with local data, rather than a handicap. Similarly, advocates of the neurodiversity movement see poor sensitivity towards meaningful context as resulting from a natural biological variation (Baron-Cohen 2009). In addition, it has been discovered that autistics perform better on some cognitive tasks than neurotypicals. For instance, in some situations, unlike the neurotypicals, autistics are immune to optical illusions due to reduced context sensitivity (Doherty et al. 2010).

In response, Wakefield et al. (2020) indicate that context insensitivity is often harmful, and people normally grow out of it. For instance, children with underdeveloped perceptual abilities are also more immune to optical illusions, indicating that people may be less prone to optical illusions once their perceptual capacities mature. Here it is important to note that sensitivity to context seems to be a necessary component of psychological maturing because reduced sensitivity to contextual cues can be life-threatening. Wakefield et al. (2020) illustrate this with the case of an autistic young adult who, while on a cruise ship, jumped overboard because he wanted to take a swim (McLaughlin and Sutton 2018). This behavior might be explained by the context insensitivity which is responsible for an inability to understand the situation and therefore to prevent the impulse to take the swim. From this it can be concluded that context insensitivity can be biologically more harmful than beneficial when it comes to autistic traits.

Moreover, it should be noted that there is a relation between the level of functioning in everyday life activities and impairments in context sensitivity. The level of functioning and impairments in context sensitivity are inversely proportional which means that more severe impairments in context sensitivity imply lower level of functioning and *vice versa*. If there were a balance between the lack of contextual understanding and functioning, then autism could be considered as a beneficial natural variation. However, Wakefield et al. (2020: 509) note that there are many open empirical issues surrounding this claim. In particular, it is undecided whether lower context sensitivity is distinctive of autism or a natural variation in the general population, and whether autistics possess some other capacities which might render lower context sensitivity beneficial.

5.3. *Autism and savant abilities*

There are autistics with special capacities often referred to as "savant abilities", such as outstanding memory of some types of events, calendrical calculation, precise drawing, and so on, which, according to some researchers, seem to be an integral part of the autistic condition (Happe 2018; Meilleur, Jelenic, and Mottron 2014). In other words, it is not possible to have these capacities without being autistic. This is the reason why some proponents of the neurodiversity movement think of autism as a special but natural way of brain-functioning. However, Wakefield et al. (2020: 510) argue that the savant abilities argument is unpersuasive because in most cases harm caused by autism is more severe than the benefits brought about by savant abilities. The fact that some argue that savant abilities are integral part of autism is the reason why we compare harms associated with autism with benefits stemming from savant abilities. Different disorders can bring about some advantages as well. For example, albinism might be beneficial in environments where there is not much sunlight available because it would allow vitamin D to be synthetized from limited amount of sunlight (Reznek 1987: 86). However, possible benefits of albinism do not *ipso facto* imply that it is not a disorder. In fact, even if it would have such benefits, still we would have reason to think of it as a disorder because people who have it are not protected from solar rays and therefore often suffer from sunburn, have greater chances to get skin cancer, etc.

Moreover, Wakefield et al. (2020: 510) indicate that there are three reasons why having savant abilities does not imply that autism involves a natural variation in brain functioning that is not harmful. First, it is not true that savant abilities are integral part of autism because only 10–25 percent of autistics exhibit savant talents and skills (Happé 2018; Meilleur et al. 2014). Second, collaboration and social interaction are needed to put in effect these capacities, which is not possible in the case of severe autism. Third, savantism can be related to different brain illnesses and brain damage such as frontotemporal dementia (Miller et al. 1998; Treffert 2009). Therefore, it is not true that savantism is distinctive for autism, and because of that autism cannot be considered as a natural variation in brain functioning.

5.4. *Autism as personal identity and culture*

Another type of argument provided by the neurodiversity movement is to suggest that autism is essential to autistics' personal identities because it confers special mental capacities and a specific world comprehension. Since autism affects the mental life of a person (her beliefs, wishes, and emotions) and mental life is considered to be a crucial part of personal identity, some autistics conceive autism as essential for their personal identity, in contrast to physical disability which is usually not deemed as intimately connected to personal identity.

However, as noted well by Wakefield et al. (2020: 512), the identity possessed by autistic individuals has nothing to do with the question of whether autism is a disorder or not. Thus, even if it is accepted that autism is a crucial part of someone's identity, this would not change the fact that autism might also be a disorder.

According to some authors autism is a socially constructed category given the heterogeneity and great expansion of it in DSM through time (see, e.g. Chapman 2016; Cushing 2018). Some authors go as far as claiming that instead of alleged autistic essence, what autistics have in common are properties which have arisen in response to being stigmatized as autistics, which for them means that it makes more sense to view autism as a form of culture rather than a disorder (see, e.g. Sarrett 2016; Verhöff 2012). Moreover, some argue that such autistic communities and culture should be appreciated and maintained (see, e.g. Straus 2013).

To this argument Wakefield et al. (2020: 512) provide a plausible retort. Although a society can influence the formation of autism as a category, this does not tell us anything about whether autism is caused by a dysfunction or whether it is harmful. Furthermore, they assert that the existence of autistic communities has nothing to do with the illness status, since there are many communities of people who share political and religious beliefs, taste in music and movies, dietary habits, and so on. The fact that people who share autistic traits have decided to establish a community does not imply anything about the disorder status of autism and whether it should be treated.[2] The idea that some condition is a disorder which should be treated is fully consistent with having a respect for a community that is based on this disorder. This can be seen in the case of communities of individuals afflicted by different major illnesses, which seek medical treatment of their condition, regardless of the fact that treatment may decrease the amount of community members. Wakefield et al. (2020: 512–513) note that the possibility of extinction is not distinctive only for communities which rest on disorders, but also for the communities which are based on natural diversity among people, such as Western European monastic culture or Yiddish culture in the United States, that disappeared because of assimilation. It is possible to appreciate the decision made by people who accepted the dominant culture while, at the same time, feel remorse because of their cultural extinction, which followed the assimilation. Wakefield et al. (2020: 513) argue that the same thing might happen with the deaf community. This is a hypothetical situation. Imagine that there is a cure for deafness and that deaf people widely welcome it, which consequently leads to the extinction of the deaf community. In this case, we most likely would not see anything intrinsically morally problematic

[2] As I have explained earlier, I think that the default position is that the justification of treatment and disorder status are related. If some condition should be medically treated, the default presupposition is that this condition is a disorder.

about it, because deaf people have freely decided to accept the cure offered to them. Here it is not morally significant whether a community of autistics or deaf people will really go extinct or not. The relevant question instead is whether the potential extinction of these communities would be caused by a decision of their members to accept successful treatment of their condition. So, it does not seem implausible to hold at the same time that autism is a disorder and that, as long as autistic persons give their consent to be treated, there is not an intrinsic moral reason against offering treatment that might undermine the existence of their community.

5.5. *Autism, harm, and a hostile society*

Finally, the most radical proponents of the neurodiversity movement argue that autism is not harmful at all. Such an approach argues that capacities of autistics should be taken as a starting point when assessing their well-being (Robeyns 2016). According to this argument, many cases of autism would not be regarded as harmful if harm is assessed in accordance with the capabilities that autistics actually possess. However, it is obvious that this approach does not work in cases of severe autism. For instance, Wakefield et al. (2020: 513) convincingly indicate that the inability to communicate and form an emotional attachment to others and feeling of sensory overload in public places can seriously impede well-being, however it is conceived.

The proponents of the neurodiversity movement argue that most harms associated with autism are caused by unfriendly environments, which are designed for people with typical brain functioning, similarly to how people with physical impairments are excluded from a society because social environments are designed for people without physical impairments (Jaarsama and Welin 2012, Chapman 2019). Here the claim is that harms suffered by autistics are not a consequence of autism as such. They are, rather, consequences of prejudice and stigmatization and the organization of the social environment or even physical space.

The same sort of argument was applied to the case of homosexuality when it was removed from DSM-III's list of disorders (Jaarsama and Welin 2012, see also Stegenga 2021). There is a distinction between harms caused immediately by a dysfunction and harms that result from a reaction of a society to the condition. This distinction was introduced by Robert Spitzer, who played a key role in de-pathologizing homosexuality in DSM. Together with Paul Wilson, they put forward the definition of disorder as a condition that is "regularly and intrinsically associated with subjective distress" or "impairment" which means that "the source of the distress or impairment in functioning must be the condition itself and not with the manner in which society reacts to the condition" (Spitzer and Wilson 1975: 829, see, also Spitzer and Endicott 1978: 18).

In the case of homosexuality, it is obvious that harm is caused by misconceptions and inappropriate reactions from other members of the society. Proponents of the neurodiversity movement argue that, in the same way, the harms associated with autism are at least partially caused by misconceptions about autism and absence of adjustment (Dominus 2019).

There are two difficulties with such application of the social model to autism (see Wakefield et al. 2020: 514). The first problem is the misuse of the difference between direct/indirect or intrinsic/extrinsic harms. Intrinsic or direct harm is harm caused by the condition itself, while indirect/extrinsic harm is harm caused by unjustifiable stigmatization and prejudices of the society. There are disorders which are related to social interaction, but are nevertheless disorders. Take, for instance, aphasia that is caused by brain trauma. Aphasia is an inability to linguistically communicate that causes problems for social interactions with other people. Thus, harm associated with aphasia can be considered as intrinsic because it will be present regardless of how a society treats people with aphasia. In the same way, harm resulting from autism is socially related, but still it can underpin the disorder status because it is caused by a dysfunction in psychological mechanisms underlying their ability to read mental states of others (Baron-Cohen 1995), lack of the capacity to recognize the influence of their behavior on others (Attwood 1998, Mercier et al. 2000), and difficulties with understanding emotions (Burgoine and Wing 1983, cited in Attwood 1998). It is clear that harms which result from these incapacities have nothing to do with the stigmatization and prejudices of the society toward autistics, although they are socially related. Since these incapacities are intrinsically associated with autism and they cause harm to them it is very likely that even changes in social practices would not help to significantly reduce harm. Thus, we have reason to think that the disorder status of autism is warranted (see Wakefield et al. 2020: 515).

Although autism seems to be an intrinsically harmful condition, still we might ask what a society can and should do to ameliorate the level of social detriments experienced by autistic persons. It is plausible to think that the magnitude of harm suffered by autistics is also influenced by external factors, such as the perception of autism in a society and the way the society treats autistics. We can also agree that this influence is higher than in the case of, for instance, aphasia. Were it to be the case that the social price of decreasing negative impacts of autism is low, it would be sensible to expect a society to adjust to the needs of autistics. However, it is not immediately clear when this will be the case.

Chong-Ming Lim (2017) indicates several things that should be considered when assessing whether the adjustments are sensible or not, such as finances and demands for neurotypicals to change their

behavior, fundamental conventions, and values. With respect to this, I think that Wakefield et al. (2020: 514) correctly conclude that it is not sensible to demand from neurotypicals to change their social conventions regarding paying attention to emotional cues, contexts, and conversational implicatures. Although such a change in social conventions would be beneficial for autistics, it is clear that it would not be feasible to introduce it for the rest of the population.

Wakefield et al. (2020: 515) argue that the second problem regarding attempts to reconcile autism with the social model of disability is the heterogeneity of autistic conditions. It is plausible that only high-functioning autism fits well with the social model because disabilities associated with many cases of high-functioning autism could be successfully reduced by environmental and social adjustments in contrast to typical cases of severe autism.

Thus, Wakefield et al. (2020: 504) contend that moderate neurodiversity is a plausible position. Moderate neurodiversity acknowledges the disorder status of classic severe autism but doesn't qualify as disorders high-functioning autism and what was formerly entitled Asperger's syndrome. This position is in-between strong neurodiversity, which is the claim that the whole autism spectrum is not a mental disorder, and weak neurodiversity which claims that the present classification of autism should remain unchanged.

I agree with Wakefield, Wasserman, and Conrad (2020) that the reviewed arguments of the neurodiversity advocates are not plausible, but I disagree with their view that high-functioning autism is likely not a mental disorder. As a class, high-functioning autism is also very heterogeneous (Weiskopf 2017). For this reason, we cannot give one ultimate answer to the question whether high-functioning autism is a disorder or not. Any general claim on this matter would be inappropriate, both because of our present lack of knowledge and conceptual issues regarding the distinction between high-functioning autism and low-functioning autism. There are no clear criteria on how to precisely distinguish between these two categories and as Wakefield et al. (2020: 505) notes "we should expect disagreement and uncertainty in many cases".

I think that some cases of high-functioning autism can be thought of as involving a disorder, while other cases should not be thought of as involving a disorder. Because of this I think that in each case individual assessment of functioning should be made. In other words, we should assess whether the cognitive and social impairments typically associated with high-functioning autism are such that they cause sufficient harm to autistic individuals. However, as mentioned earlier, what is needed to solve this issue is a more elaborated concept of harm than the one offered by Wakefield (1992). To start solving this problem we should have a working account of what are the relevant cognitive and social abilities which are needed for everyday normal functioning and

how their impairment might be harmful to high-functioning autistics. Thus, in the next section I argue for what I believe to be a good further elaboration of the relevant capacities that will provide a valuable tool for assessment of harm in cases of high-functioning autism. Given the limited space, this account can only be provided in broad outlines, but, still, it should be informative enough for showing how we can use it for determining in individual cases whether high-functioning autistics should be considered as mentally ill.

6. *Capacities, harm, and high-functioning autism*

We can all agree that some condition is harmful to a person if it significantly interferes with her well-being and functioning. However, to adjudicate whether a high-functioning autistic person is harmed by some condition in a way that is relevant for determining whether they suffer from a mental disorder, we need to be able to determine the relevant forms of harm and their causal bases. I maintain that this question may be approached by thinking about the psychological capacities that are necessary for leading a healthy and satisfying life. Earlier we saw that a plausible view of mental disorder requires that harm should be intrinsic, in the sense that harm is caused by an internal impairment in a relevant psychological capacity and not by stigmatization or prejudice. Moreover, the impairments in fundamental capacities that cause harm need to be such that they most likely cannot be ameliorated by introducing changes in social practices or environment. If a condition is harmful and a consequence of an impairment in the relevant psychological capacity, then we would have reason to think of this condition as a mental disorder. Now the pertinent question is what are these psychological capacities which are necessary for leading a healthy life?

I maintain that the list of basic psychological capacities offered by George Graham (2010: 147–148) provides a particularly good elaboration of what is relevant for assessing the kind of harm that underpins mental disorders. Graham claims that his list provides basic psychological capacities because they pass the veil of ignorance test as formulated by John Rawls (1971). Rawls uses the veil of ignorance to illustrate a hypothetical situation in which free, equal, and rational agents choose basic principles of justice, without knowing anything about their gender, race, nationality, and socioeconomic status. Analogously, Graham (2010, 139–142) uses this model to determine the list of basic psychological capacities that are universally needed for a decent life by all people, regardless of their specific condition. Graham contends that by thinking about this issue from the perspective of a veil of ignorance, where a person tries to decide what are the capacities that "no one (…) would wish to be without or to have seriously compromised or impaired" (Graham 2010: 154), we will come to see the following list of capacities as fundamental: 1) Bodily/spatial self-location, 2) Historical/temporal self-location, 3) General self/world comprehension, 4) Com-

munication, 5) Care, commitment and emotional engagement, 6) Responsibility for self and 7) Recognition of opportunities or "affordances" (Graham 2010: 147–149).

In what follows, I will summarize Graham's descriptions of the capacities that pass the test of veil of ignorance and are relevant for the discussion of harm in the case of high-functioning autism.

1) Communication. To be able to communicate with each other about ourselves and the world, we must possess sufficient listening and speaking competencies in some system of communication (e.g., one's mother tongue, sign language, etc.). In interactions with others, we assess the soundness of others' utterances, but to do this, we first need to understand their meaning. Communication is an important source of information, and it connects people with each other (Graham 2010: 148).
2) Care, commitment and emotional engagement. People are usually committed to and take care of things and people they consider important and as a consequence, they feel bad if things or people they care about are in some way endangered, or feel happy if they are not (Graham 2010: 148–149).
3) Responsibility for self. We are able to take care for ourselves, which means that we can control our behavior by forming intentions, assessing the impulses and inhibitions, making practical decisions and self-reflective choices. We can conform our behavior to our decisions and choices; mostly we do not behave impulsively (Graham 2010: 149).
4) Recognition of opportunities or "affordances". We are able to recognize different possible choices we can make in the process of decision-making. Although many people feel great deal of anxiety about making decisions, people usually want to make autonomous decisions in life, which presupposes being aware of different paths and opportunities available to them (Graham 2010: 149).

Using Graham's account of psychological capacities for assessing the mental disorder status of high-functioning autistics is appropriate because it satisfies two important desiderata. First, this account is unique in analytic philosophy of psychiatry in that it provides a concrete list of psychological capacities that is specifically made for testing particular cases of mental disorder. Second, the list of capacities is justified via an ethical procedure (i.e. the veil of ignorance) that purports to be fair and provide universal standards that can be accepted across different cultures. Thus, the justification of these capacities is not vulnerable to unjustified forms of cultural relativism, because they are "not derived from our individually variable desires or capacities, but from competencies that we are bound to value and need, regardless of which specific goals we possess and pursue" (Graham 2010: 147).

Following the symptomatology of autism from DSM-5 (see above section 2), we can plausibly say that capacities of communication and

emotional engagement are often impaired even when it comes to high-functioning autistics. I think that capacities underpinning responsibility for self and recognition of opportunities might also be impaired because even high-functioning autistics show repetitive behavior, and they possess a limited range of interests. Moreover, repetitive behavior might be caused by an inability to control impulses and inhibitions. Finally, autistics have difficulties recognizing the needs and mental states of other people that can be expressed by various social cues, such as facial expressions and tone of voice. This likely leads to impairments in functioning in everyday social interactions.

However, whether these impairments cause harm that would trigger the mental disorder status is not straightforward. I think that here we should distinguish between two questions: 1. What are the capacities whose impairment causes a harmful condition which can be characterized as a mental disorder? 2. To what degree does a person need to possess these capacities to claim that her condition is not harmful?

The first question represents what might be called the objective aspect of the concept of harm. It might be considered as objective because in Graham's account those are the capacities that all people need to have in order to lead a healthy life. The objective aspect of the concept of harm is important because it delineates mental disorders from problems of living. It is not the case that any harmful condition should be characterized as a mental disorder. As mentioned above, mental disorders are harmful conditions caused by dysfunctions in basic psychological capacities.

In contrast to this, the second question refers to the required degree to which people need to possess these capacities. This aspect of the concept of harm can be construed as subjective because it is likely that there will not be a universally fixed threshold that distinguishes degrees of harm that constitute mental disorders from those that do not. This is because the degrees of harm and their relevance will depend on specific goals and values, which differ greatly from a person to person and their social contexts due to irreducible heterogeneity among people and societies they comprise. Therefore, it is likely that the assessment of the degree to which a person needs to possess the relevant capacity will depend on local contexts and sociocultural norms.

Drawing the distinction between objective and subjective components of harm indicates that not all cases of high-functioning autism would be considered as disorders. From this it follows that individual assessment in relation to a context of living and functioning should be made on a case-by-case basis. For example, in a society which cherishes ideals of extreme individualism and independence, lower abilities of communication and emotional engagement exhibited by high-functioning autistics would not be harmful, or would be harmful to a much lesser extent than they would be in a society where such ideals are not cherished. In a similar vein, due to restrictive and repetitive behavior, which is distinctive

for autistics, autism would be less harmful or would not be harmful at all in environments that are structured and demand from people to engage in routine activities. Such environments might involve working on sorting jobs and manufacturing lines. Autistics also might be good at engineering, IT, art and design because they are visually oriented, and they tend to focus on details (Cheriyan et al. 2021; Hayward et al. 2019). Due to outstanding memory, they might perform well at math and library science (Everhart 2020; Cheriyan et al. 2021; Hayward et al. 2019). Autistics also might be very good researchers because they present facts without personal bias due to their tendency to rely on logic and to be unemotional (Cheriyan et al. 2021). Finally, autistics often show strong connections to animals, so they might work as veterinary technicians, dog walkers, zookeepers, livestock handlers, and so on (Prothmann et al. 2009; Reed 2021). In such cases we would have reason to think that autism is much less harmful or is not harmful at all, because in these environments the strengths of the specific autistic individual outweigh other traits that might be associated with maladaptation.

7. *Conclusion*

In this paper, I have reviewed reasons for thinking that autism is a mental disorder. I concluded that severe forms of autism can plausibly be thought of as a mental disorder. I have argued that a general conclusion about the disorder status of high-functioning autism cannot be drawn due to the heterogeneity of autism. I have claimed that in every case of high-functioning autism a specific evaluation of harm should be offered to determine the disorder status of that condition. To elaborate on the procedure by which harm in such cases can be evaluated, I relied on Graham's (2010) list of capacities that are generally needed for leading a healthy life. I argued that some of these capacities could be impaired in the case of high-functioning autism, but whether this is so and to what degree should be determined on a case-by-case basis since the severity and harm of these impairments are likely to be context-dependent.*

References

American Psychiatric Association. 1994. *Diagnostic and Statistical Manual of Mental Disorders: DSM-4.* Washington: American Psychiatric Association.

American Psychiatric Association. 2013. *Diagnostic and statistical manual of mental disorders: DSM-5.* Arlington: American Psychiatric Association.

* I wish to thank Luca Malatesti and Marko Jurjako for reading previous versions of this article and providing very valuable comments. I am also very grateful to Dora Kunović, who has proofread the article. My research is funded by the Croatian Science Foundation (Project RAD, Grant IP-2018-01-3518 and doctoral scheme DOK-02-2021).

Amoretti, C. M. and Lalumera, E. 2019. "Harm Should Not Be a Necessary Criterion for Mental Disorder: Some Reflections on the DSM-5 Definition of Mental Disorder." *Theoretical Medicine and Bioethics* 40 (4): 321–37. https://doi.org/10.1007/s11017-019-09499-4.

Armstrong, T. 2015. "The Myth of the Normal Brain: Embracing Neurodiversity." *AMA Journal of Ethics* 17 (4): 348–52. https://doi.org/10.1001/journalofethics.2015.17.4.msoc1-1504.

Attwood, T. 1998. *Asperger's Syndrome: A Guide for Parents and Professionals*. London: Jessica Kingsley.

Baron-Cohen, Simon. 1995. *Mindblindness: An Essay on Autism and Theory of Mind*. Cambridge: MIT Press.

——— 2009. "Autism: The Empathizing – Systemizing (E-S) Theory. " *The Year in Cognitive Neuroscience:* Ann. N.Y. Acad. Sci. 1156: 68–80.

———. 2017. "Editorial Perspective: Neurodiversity – a Revolutionary Concept for Autism and Psychiatry." *Journal of Child Psychology and Psychiatry* 58 (6): 744–747. https://doi.org/10.1111/jcpp.12703.

Bermúdez, L. J. 2005. *Philosophy of Psychology: A Contemporary Introduction*. London: Routledge

Bingham, R. and Banner, N. 2014. "The Definition of Mental Disorder: Evolving but Dysfunctional?" *Journal of Medical Ethics* 40 (8): 537–542.

Biturajac, M. and Jurjako, M. 2022. "Reconsidering harm in psychiatric manuals within an explicationist framework" *Medicine, Health Care, and Philosophy*. https://dx.doi.org/10.1007/s11019-021-10064-x

Blume, H. 1998. "Neurodiversity". The Atlantic. 30 September 1998.

https://www.theatlantic.com/magazine/archive/1998/09/neurodiversity/305909/.

Bolton, Derek. 2013.. "What is mental illness?" In K. W. M. Fulford, M. Davies, R. G. T. Gipps, G. Graham, J. Z. Sadler, G. Stanghellini and T. Thornton (eds.). *The Oxford Handbook of Philosophy and Psychiatry*. Oxford: Oxford University Press, 434-50

Burgoine, Eyrena, and Wing, L 1983. "Identical Triplets with Asperger's Syndrome." *British Journal of Psychiatry* 143: 261–265.

Cartwright, A. S. 1851. "Report on the Disease and Physical Peculiarities of the Negro Race." *The New Orleans Medical and Surgical Journal* 89–92.

Chapman, R. 2016. "Autism Isn't Just a Medical Diagnosis — It's a Political Identity." Medium. 2016. https://medium.com/the-establishment/autism-isnt-just-a-medical-diagnosis-it-s-a-political-identity-178137688bd5.

———. 2019. "Neurodiversity Theory and Its Discontents: Autism, Schizophrenia, and the Social Model of Disability." In S. Tekin and R. Bluhm (eds.). *The Bloomsbury Companion to Philosophy of Psychiatry*. London: Bloomsbury Academic, 371–390.

Cheriyan, C., Shevchuk-Hill, S., Riccio, A., Vincent, J., Kapp, S. K., Cage, E., Dwyer, P., Kofner, B., Attwood, H., and Gillespie-Lynch, K. 2021. "Exploring the Career Motivations, Strengths, and Challenges of Autistic and Non-autistic University Students: Insights From a Participatory Study". *Frontiers in Psychology* 12: 719–827. https://doi.org/10.3389/fpsyg.2021.719827

Cooper, V. R. 2007. *Psychiatry and Philosophy of Science*. Stockfield: Acumen.

———. 2021. "On Harm." In L. Faucher et D. Forest (eds.). *Defining mental disorders: Jerome Wakefield and his critics*. Cambridge: MIT Press: 537–551.

Cushing, S. 2018. "Has Autism Changed?" In M. dos Santos and J.-F. Pelletier (eds.). *The Social Constructions and Experiences of Madness*. Leiden: Brill: 75–94.

Den Houting, J. 2019. "Neurodiversity: An insider's perspective". *Autism* 23 (2): 271–273

Doherty, J. M. Campbell, M. N., Tsuji, H. and Phillips, A. W. 2010. "The Ebbinghaus Illusion Deceives Adults but Not Young Children". *Developmental Science* 13 (5): 714–721. https://doi.org/10.1111/j.1467-7687.2009.00931.x.

Dominus, S. 2019. "Open Office". *The New York Times Magazine*. Retrieved from https://www.nytimes.com/interactive/2019/02/21/magazine/autism-office- design.html.

Everhart, N., and Anderson, A. M. 2020. "Research Participation and Employment of Persons with Autism Spectrum in Library and Information Science: A Review of the Literature". *Library Leadership & Management* 34 (3). https://doi.org/10.5860/llm.v34i3.7376

Feather, K. A. 2016. "Low functioning to high-functioning autism: A prescriptive model for counselors working with children across the spectrum." *Ideas and research you can use: VISTAS 2016*.

Fletcher-Watson, S. and Happé, F. 2019. *Autism: A New Introduction to Psychological Theory and Current Debate*. https://doi.org/10.4324/9781315101699.

Frith, U. 1989. *Autism: Explaining the Enigma*. Malden: Blackwell.

Garson, J. 2021. "The Developmental Plasticity Challenge to Wakefield's View". In L. Faucher and D. Forest (eds.). *Defining Mental Disorder: Jerome Wakefield and his Critics*. Cambridge: MIT Press: 335–352.

Graby, S. 2015. "Neurodiversity: Bridging the Gap between the Disabled People's Movement and the Mental Health System Survivors' Movement?" In H. Spandler, J. Anderson and B. Sapey (eds.). *Madness, Distress and the Politics of Disablement*. Bristol: Policy Press, 231–43. https://doi.org/10.2307/j.ctt1t898sg.

Graham, G. 2010. *The Disordered Mind: An Introduction to Philosophy of Mind and Mental Illness*. New York: Routledge.

Happé, F. 1999. "Autism: Cognitive Deficit or Cognitive Style?" *Trends in Cognitive Sciences* 3 (6): 216–222. https://doi.org/10.1016/s1364-6613(99)01318-2.

———. 2018. "Why Are Savant Skills and Special Talents Associated with Autism?" *World Psychiatry* 17 (3): 280–281. https://doi.org/10.1002/wps.20552.

Hayward, S. M., McVilly, K. R., and Stokes, M. A. 2019. "Autism and employment: What works." *Research in Autism Spectrum Disorders* 60: 48–58. https://doi.org/10.1016/j.rasd.2019.01.006

Hughes, A. J 2021. "Does the heterogeneity of autism undermine the neurodiversity paradigm?" *Bioethics* 35: 47–60. https://doi.org/10.1111/bioe.12780.

Jaarsma, P. and Welin, S. 2012. "Autism as a Natural Human Variation: Reflections on the Claims of the Neurodiversity Movement." *Health Care Analysis* 20 (1): 20–30. https://doi.org/10.1007/s10728-011-0169-9.

Jurjako, M. 2019. "Is Psychopathy a Harmful Dysfunction?"*Biology & Philosophy* 34 (5). https://doi.org/10.1007/s10539-018-9668-5

Kanner, L. 1943. "Autistic Disturbances of Affective Contact." *Nervous Child* 2: 217–250.

Kingma, E. 2013. "Naturalist Accounts of Mental Disorder." In K. W. M. Fulford, M. Davies, R. Gipps, G. Graham, J. Sadler, G. Stanghellini and T. Thornton (eds.). *The Oxford Handbook of Philosophy and Psychiatry*. Oxford: Oxford University Press, 363–384.

Lancellotta, E. and Bortolotti, L. 2020. "Delusions in the Two-Factor Theory: Pathological or Adaptive?"*European Journal of Analytic Philosophy* 16 (2): 37–57. https://doi.org/10.31820/ejap.16.2.2

Legault, M., Bourdon, J. N., and Poirier, P. 2019. "Neurocognitive variety in neurotypical environments: The source of "deficit" in autism." *Journal of Behavioral and Brain Science* 9 (6): 246.

Legault, M., Bourdon, J. N., and Poirier, P. 2021. "From neurodiversity to neurodivergence: the role of epistemic and cognitive marginalization." *Synthese* 199 (5): 12843–12868.

Lim, C. 2017. "Reviewing Resistances to Reconceptualising Disability." *Proceedings of the Aristotelian Society* 117 (3): 321–331.

Malatesti, L., Jurjako, M. and Meynen, G. 2020. The Insanity Defence Without Mental Illness? Some Considerations." *International Journal Of Law And Psychiatry* 71: 101571. doi:10.1016/j.ijlp.2020.101571.

McKay, T. R. and. Dennett, C. D. 2009."The Evolution of Misbelief." *Behavioral and Brain Sciences* 32 (6): 493–510. https://doi.org/10.1017/S0140525X09990975

McLaughlin, C. E. and Sutton, J. 2018. "Autistic Man Who Went Overboard on Carnival Cruise Was Traveling with Special Needs Group." CNN. 2018. https://www.cnn.com/2018/12/20/us/autistic-man-overboard-carnival-cruise/index.html.

McNally, R. J. 2001. "On Wakefield's Harmful Dysfunction Analysis of Mental Disorder." *Behaviour Research and Therapy* 39 (3): 309–314.

Meilleur, S. A., Jelenic, P. and Mottron, L. 2014. "Prevalence of Clinically and Empirically Defined Talents and Strengths in Autism." *Journal of Autism and Developmental Disorders* 45 (5): 1354–1367. https://doi.org/10.1007/s10803-014-2296-2.

Mercier, Céline, Mottron, L. and Belleville, S. 2000. "A Psychosocial Study on Restricted Interests in High-Functioning Persons with Pervasive Developmental Disorders." *Autism* 4 (4): 406–425.

Meyerding, J. 2014. "Thoughts on Finding Myself Differently Brained." *Autonomy, the Critical Journal of Interdisciplinary Autism Studies* 1 (3).

Miller, L. B., Cummings, J., Mishkin, F., Boone, K., Prince, F., Ponton, M. and Cotman, C. 1998. "Emergence of Artistic Talent in Frontotemporal Dementia." *Neurology* 51 (4): 978–982. https://doi.org/10.1212/WNL.51.4.978.

Murphy, D. 2006. *Psychiatry in the Scientific Image*. Cambridge: The MIT Press.

Murphy-Hollies, K. "When a Hybrid Account of Disorder is not Enough: The Case of Gender Dysphoria." *European Journal of Analytic Philosophy* 17 (2): 6–26. https://doi.org/10.31820/ejap.17.3.5

Nelson, H. R. 2021, "A Critique of the Neurodiversity View." *Journal of Applied Philosophy* 38: 335–347. https://doi.org/10.1111/japp.12470

Nicolaidis, C. 2012. "What can physicians learn from the neurodiversity movement?". A*ma Journal of Ethics* 14 (6): 503–510.

Ortega, F. 2009. "The Cerebral Subject and the Challenge of Neurodiversity." *BioSocieties* 4 (4): 425–45. https://doi.org/10.1017/S1745855209990287.

Prothmann, A., Ettrich, C., and Prothmann, S. 2009. "Preference for, and Responsiveness to, People, Dogs and Objects in Children with Autism." *Anthrozoös* 22 (2): 161–171. https://doi.org/10.2752/175303709X434185

Rawls, J. 1971. *A Theory of Justice*. Cambridge: Harvard University Press.

Reed, D. 2021. "Autism spectrum disorder in veterinary clients: How the practice can help." *Veterinary Nursing Journal*, 36 (1): 30–32. https://doi.org/10.1080/17415349.2020.1840472

Reznek, L. 1987. *The Nature of Disease*. London: Routledge and Kegan Paul.

Robeyns, I. 2016. "Conceptualising Well-Being for Autistic Persons." *Journal of Medical Ethics* 42 (6): 383–90. https://doi.org/10.1136/medethics-2016-103508.

Sarrett, C. J. 2016. "Biocertification and Neurodiversity: The Role and Implications of Self-Diagnosis in Autistic Communities." *Neuroethics* 9 (1): 23–36. https://doi.org/10.1007/s12152-016-9247-x.

Sinclair, J. 1993. "Don"t Mourn for Us." *Our Voice* 1 (3). http://www.autreat.com/dont_mourn.html.

Spitzer, L. R. and Endicot, J. 1978. "Medical and Mental Disorder: Proposed Definition and Criteria." In Robert L. Spitzer and Donald F. Klein (eds.). *Critical Issues in Psychiatric Diagnosis*. New York: Raven Press, 15–24.

Spitzer, L. R. and Wilson, T. P. 1975. "Nosology and the Official Psychiatric Nomenclature." *Comprehensive Textbook of Psychiatry* 2.

Stegenga, J. 2015. "Effectiveness of medical interventions." *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 54: 34–44.

Stegenga, J. 2021. "Medicalization of sexual desire." *European Journal of Analytic Philosophy* 17 (2): 5–32. https://doi.org/10.31820/ejap.17.3.4

Straus, N. J . 2013. "Autism as Culture." *The Disability Studies Reader* 4: 460–484.

Szasz, T. 1974. *The Myth of Mental Illness*. New York: Harper and Collins

Šustar, P. and Brzović, Z. 2014. "The Function Debate: Between 'Cheap Tricks' and Evolutionary Neutrality." *Synthese* 191 (12): 2653–2671. https://doi.org/10.1007/s11229-014-0407-4.

Treffert, Darold A. 2009. "The Savant Syndrome: An Extraordinary Condition. A Synopsis: Past, Present, Future." *Philosophical Transactions of the Royal Society B: Biological Sciences* 364 (1522): 1351–1357. https://doi.org/10.1098/rstb.2008.0326.

Verhöff, B. 2012. "What Is This Thing Called Autism? A Critical Analysis of the Tenacious Search for Autism's Essence." *BioSocieties* 7 (4): 410–32. https://doi.org/10.1057/biosoc.2012.23.

Wakefield, C. J. 1992. "The Concept of Mental Disorder. On the Boundary between Biological Facts and Social Values." *The American Psychologist* 47 (3): 373–388.

———. 2007. "The Concept of Mental Disorder: Diagnostic Implications of the Harmful Dysfunction Analysis." *World Psychiatry* 6 (3): 149–156.

———. 2014. "The Biostatistical Theory Versus the Harmful Dysfunction Analysis, Part 1: Is Part-Dysfunction a Sufficient Condition for Medical Disorder?" *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine* 39 (6): 648–682. https://doi.org/10.1093/jmp/jhu038.

Wakefield, C. J. and Conrad, A. J. 2019. "Does the harm component of the harmful dysfunction analysis need rethinking?: Reply to Powell and Scarffe." *Journal of Medical Ethics* 45 (9): 594–596. https://doi.org/10.1136/medethics-2019-105578

Wakefield, C. J., Wasserman, D. and. Conrad, A. J. 2020. "Neurodiversity, Autism, and Psychiatric Disability." In A. Cureton and D. T. Wasserman (eds.). *The Oxford Handbook of Philosophy and Disability*. Oxford: Oxford University Press: 501–521 https://doi.org/10.1093/oxfordhb/9780190622879.013.29.

Wasserman, D., Asch, A., Blustein, J. and Putnam, D. 2016. "Disability: Definitions, Models, Experience". In Edward N. Zalta (ed.). *The Stanford Encyclopedia of Philosophy*, https://plato.stanford.edu/archives/sum2016/entries/disability/.

Weiskopf, A. D. 2017. "An Ideal Disorder? Autism as a Psychiatric Kind." *Philosophical Explorations* 20 (2): 175–90. https://doi.org/10.1080/13869795.2017.1312500.

World Health Organization, ed. 2001. *International Classification of Functioning, Disability and Health: ICF*. Geneva: World Health Organization.