

Idordersed Nismd

(Disordered Minds)

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Think of a brain. A pinkish, greyish, brownish mass of swirly, gelatinous, coral-like tissue. Two identical-looking halves of a sphere-like organ that are the size of the palms of one's hands. The productive, efficient, machinelike epicenter of the human body.

The brain has long been characterized by science as the main attribute that elevates humans above all other organisms. The complexity of this magical, three-pound organ allows it to act as "the seat of intelligence, interpreter of the senses, initiator of body movement, and controller of behavior" ("Brain Basics: Know Your Brain"). For one six-inch piece of flesh to perform such extraordinary tasks, the brain *must* be highly developed and *ordered*. In a process that took around half a billion years, the human brain evolved to become what society coins a 'machine.' But what if there is a glitch in the manufacturing process of this 'machine'? A shift from the norm, a loose screw, a 'disordered mind'?

Enter: the individual with a mental disorder. Disorder seems to carry a negative connotation in society, as there is a tendency for 'ordered' objects or thoughts to be 'reasonable' or 'logical.' Thus, stating that neuroatypical individuals have 'disordered' minds gives an air of unreason to these individuals' thought processes, viewpoints, or actions in the world. But is the mind truly ordered? If order is reasonable, then is there only one type of order? Or can this 'order' look different for different people or even evolve throughout an individual's life? Society's definition of what a logical, reasonable, ordered mind looks like is problematic in that it excludes individuals who may think, learn, and communicate differently.

Society is obsessed with dichotomies. Good and bad, right and wrong, *reasonable and unreasonable*. For every positively-connotated outcome (good, right, reasonable), society has

constructed a so-called negative outcome that acts as its antithesis (bad, wrong, unreasonable). This tendency to idolize, solidify, and categorize extremes seems to center around the importance of knowledge and reason in human society. But what does it mean to have knowledge? According to French philosopher Pascal Engel, “one is justified in one’s beliefs if one has the beliefs which one ought to have or if one obeys the relevant epistemic norms” (Amoretti 54). Thus, knowledge is closely tied with society in that one can have one’s own beliefs only if those beliefs are aligned, echoed, or confirmed by ‘general human knowledge’ that already exists and is widely accepted by society. This singlemindedness approach to knowledge is also depicted by German philosopher and mathematician Gottlob Frege. In an essay on reason and logic from the book *Reason and Rationality*, philosopher Carlo Cellucci describes that Frege believed that,

. . . logic is constitutive of rationality. Humans are rational if they obey the laws of logic, irrational otherwise. There can be only one logic since there is only one truth, and the laws of logic are ‘laws of truth.’ Logic is normative, for its laws ‘prescribe universally the way in which one ought to think if one is to think at all.’ (Amoretti 199-200)

Here, Frege argues that the only *reasonable* way to live is by the long-held rules of logic that have been engrained, accepted, and approved by society. Anything outside of these logical truths are irrational and should be deemed ‘less than’ or ‘bad’. In a world full of almost eight billion unique human beings, how can reason solely exist as one set of actions, morals, or values? If the laws of logic are the only “way in which one ought to think if one is to think at

all,” as Frege states, then how does one describe the brainwaves of someone who thinks ‘illogically’?

One of the first characterizations of mental disorder hails from ancient Greece. The Greeks believed that the “health of the body was related to the four body humors: blood, phlegm, choler (yellow bile), and black bile” (Martin 16). Thus, individuals with mental illnesses were seen to have an imbalance in their bodily humors. Too much blood and choler signified mania while an abundance of black bile characterized melancholic individuals (Porter 124). This historical depiction of mental illness continues to emphasize an innate *order* to the human body, while *disorder* signifies an altered, bad, diseased state. In later years, medicine shifted away from the fluids of the body and towards the “solids (organs, nerves, and fibres)” (Porter 124). In *Madness: A Brief History*, author Roy Porter describes how,

Iatrophysics (medical physics) pictured the body machine as a hydraulic system of piping, or as a neurological circuit wiring the limbs to the brain and conducting sensation and motion electrically. (Porter 124)

Yet again, the metaphor of the human as a machine is enacted. With its well-oiled, precisely manufactured parts that act exactly according to the instruction manual, the human body (including the brain) *must* contain *order* to function appropriately in society. Therefore, historically one can see that mental illness was frequently associated with some sort of bodily glitch. A shift from the norm. On the contrary, what if there was no singular ‘norm’? Rather, the human brain and the body itself simply existed all on its own in each individual’s unique, complicated, wonderful, extraordinary manner.

Dr. Temple Grandin is a professor of animal science, an engineer who works to improve the welfare of animals in slaughterhouses, and an author ("Temple Grandin"). Dr. Temple Grandin also has a 'disordered mind.' In her book *Thinking in Pictures*, Grandin describes the inner workings of her so-called 'disordered mind,' ultimately demonstrating that her mind is not in fact less ordered than the 'normal' human brain; rather, she simply thinks, explores, analyzes, and sees the world in a different way. While many individuals think in words, Grandin thinks in pictures--movies, actually. Take, for instance, someone wanting to build a dip vat (a structure used to delouse cattle before slaughtering). For an individual who thinks in words, looking up definitions of a dip vat, understanding diagrams and mechanisms of these tools, and listing out the materials needed to build one might be a logical, *ordered* way of approaching this situation. Grandin, on the other hand,

. . . can imagine what a dip vat would look like modeled on computer graphics by placing it on my memory of a friend's computer screen. Since his computer is not programmed to do fancy 3-D rotary graphics, [she can] take computer graphics [she has] seen on TV or in the movies and superimpose them in [her] memory. (Grandin 12)

Grandin's approach to this problem is as logical and *ordered* as that of the individual who thinks in words, it is just different. If *ordered* thinking leads to productivity and success, then Grandin's visual thought mechanisms cannot be excluded from this definition solely due to her diagnosis as an autistic individual, because she revolutionized the engineering of dip vats in the late 1970s and continues to excel in the agricultural engineering field.

Furthermore, language is another aspect of the human that seems to distinguish it from other organisms. If the extraordinary human brain is capable of processing, connecting, and exploring, communication allows an individual's brain to share its innerworkings with other individuals. British philosopher Michael Dummett states that, "the use of language is, indeed, the primary manifestation of our rationality: it is the rational activity par excellence" (Amoretti 174). Thus, language allows for the sharing of knowledge, logic, and *reason* in an *ordered* way. With over 6,500 languages in the world, one might assume that every single one of the 7.8 billion human beings on Earth would be able to use one of those as a means of sharing knowledge. However, for some individuals, language is a challenging concept to grasp. Temple Grandin, for instance, describes how "autistic individuals have problems learning things that cannot be thought about in pictures," and that, "the easiest words for an autistic child to learn are nouns, because they directly relate to pictures" (Grandin 14). Thus, language as it is normally thought about or accepted in society is illogical for individuals like Grandin whose brains do not think in that way.

Mel Baggs is another individual for whom 'normative language' was not their native tongue. Baggs, who passed away in April of 2020, was a well-known blogger who wrote about autism and disability, among other topics. Baggs also had a 'disordered mind.' In a famous YouTube video titled "In My Language," Baggs shares insight into the ways in which they view the world. The video consists of Baggs humming and making sounds using various objects throughout their house such as a slinky and water from a faucet. Later in the video, viewers hear a computer-generated voice as Baggs begins translating their language into English and explaining how they experience and communicate in the world. They go on to state:

The thinking of people like me is only taken seriously if we learn your language, no matter how we previously thought or interacted . . . I find it very interesting . . . that failure to learn your language is seen as a deficit but failure to learn my language is seen as so natural. (Baggs, *In My Language* 4:50-5:00, 6:22-6:31)

Oftentimes, individuals labeled as ‘non-verbal’ are seen as insufficient or disregarded as not being able to communicate their thoughts; however, Baggs demonstrates that their mode of communication involves all five senses and is still a valuable means of sharing information. In a blog post, Baggs further describes their thoughts on language and how they experience a life that is just as rich as those of verbal individuals, it is simply different. They use a metaphor in this blog post, where individuals who speak English for example are seen as inhabiting a mountain (higher up, better, more developed) while individuals like Baggs who communicate in a different manner are placed in a dry, desolate valley. Baggs then describes how,

This place [they] come from is envisioned as the world of real, valid people minus something. [They] know, of course, that the valley [they] live in is anything but desolate, anything but a mountain minus the mountain itself. There are all kinds of trees, many of which can’t grow on the mountain. [They] splash in creeks, and the smell of the rocks is vivid. [They] roll on the ground and the smell of the soil is dark and satisfying. Each experience is like a new rainbow for every sense, and each thing fits in a pattern such that [they] can perceive everything else around it. (Baggs, “Up in the Clouds”)

This notion that neuroatypical individuals are ‘less than’ or are lacking something that defines a human being is completely incorrect, for Baggs demonstrates the utmost joy and the rich life

exuding from this ‘valley’ that society places individuals with mental disorders. The fact that Baggs is able to explore the world using all of their senses is exceptional, yet society continues to focus on Baggs’s lack of verbal expression.

Thinking back on the machine notion of the brain, Baggs would be seen as a glitch, a malfunction, a motor with a piece missing, *disordered*. However, their brain is not broken. It is feeling, tasting, smelling, hearing, and seeing every little detail that this world has to offer and processing it in profound ways. Neurons in Baggs’s brain are firing just as efficiently, effectively, and *orderly* as anyone else’s central nervous system. Thus, Baggs is another demonstration of how the notion of a ‘disordered mind’ must be a myth, and that the human brain may not be as machinelike as it is frequently characterized.

Machines are clunky. They are inorganic, stagnant, and they often must be constructed in one particular way as detailed by a single, unchanging instruction manual. Yes, machines are powerful, productive, and efficient, but is it truly correct to compare the human brain to a hulking piece of metal? Nobel Prize-winning biologist Gerald Edelman does not think so. Rather, Edelman characterizes the brain as a kind of “Darwinian jungle,” and he states that,

the brain is in no sense like any kind of instruction machine, like a computer. Each individual’s brain is more like a unique rainforest, teeming with growth, decay, competition, diversity, and selection. (Armstrong 10)

Compared to a machine in one’s skull, a rainforest seems like a more joyous atmosphere. Instead of characterizing the brain as an entity that is defined within limited parameters surrounding efficiency and effectiveness, Edelman argues that uniqueness, change, and color

are defining features. Temple Grandin's visual thought processes and Mel Baggs's multi-sensory communication may be at odds with the 'instruction manual' for the machinelike brain, but both flourish profusely in the ever-changing atmosphere of the rainforest brain. Edelman's metaphor of a rainforest brain aligns with a relatively new disability movement that emphasizes neurodiversity. This term, "emerging out of the autistic rights movement in the late 1990s," challenges the notion of a single, model brain by demonstrating the amazing diversity that the human brain encompasses (Armstrong 55). In his book of the same name, Dr. Thomas Armstrong describes that,

Instead of pretending that there is hidden away in a vault somewhere a perfectly 'normal' brain to which all other brains must be compared, we need to admit that there is no standard brain . . . and that, in fact, diversity among brains is just as wonderfully enriching as biodiversity and diversity among cultures and races. (Armstrong 3)

Oftentimes, science is seen as an objective truth. While there is a small piece of metal sitting somewhere in France that defines the kilogram, there is no 'ideal brain' floating around in some museum that is the standard for all human brains. There is no standard brain, yet society's tendency to exclude individuals whose brains operate differently from the 'norm' impresses the belief that there is only one way to have a brain. The stigmas that follow from this tendency are detrimental and lead to long-held stereotyping of neuroatypical individuals.

Society values productivity and efficiency, but these values contribute to the exclusion of individuals who do not adhere to societal norms of thinking or communicating. History has instilled a binary notion of rationality that defines knowledge and ultimately power in society. Society's definition of what a logical, reasonable, ordered mind looks like is

problematic in that it excludes individuals who may think, learn, and communicate differently. Words such as ‘disorder’ that may seem harmless carry negative connotations that single out and label individuals who simply do not adhere to societal norms as ‘unreasonable,’ ‘incorrect,’ or ‘unworthy.’ All brains are *ordered* in different ways. Some brains store information in words, others in pictures or movies. Certain individuals share information verbally, others through sounds, touch, or feel. In reality, there is no right or wrong way to have a brain, there are just different ways.

Now, think of a brain. A bustling, humming, buzzing, frothing source of connections, ideas, daydreams. A library full of movies, memories, experiences. A sounding board for the sights, sounds, smells, tastes, and feelings of the Earth. A messy, jumbled, colorful, diverse, evolving rainforest.

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