STS.010: Neuroscience and Society
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Recitation 01

The Medicalization of Normality and the Ethical Debate behind Brain Enhancement

Imagine a world in which mandatory and optional drugs are considered the same: for instance, beta blockers taken to manage abnormal heart rhythms and methylphenidate taken to improve already-average levels of focus are both deemed medically appropriate and reasonable. Eight-year-old Suzy wakes up every morning and swallows 10 pills, none of which are used to control medically dangerous problems and all of which are used to improve her performance in academics and athletics. Twenty-year-old Jamie pounds back cocktails of self-confidence boosters guaranteed to make him a ladies' man. Sixty-year-old professor Sandra takes anti-aging and memory improvement pills that prevent her brain from decaying, keeping her brain as sharp as it was in her graduate school days.

Despite the seeming improbability of these situations, our reality is not so far off. We are living in a world in which there is a widespread eagerness to actively improve ourselves, whether naturally or artificially. The plethora of self-help books that have been published in recent years attests to this, as well as socially accepted enhancement technologies such as cosmetic surgery and dye for gray hair. What is new, however, is the way that neuroscience has entered the equation, providing a chemical form of brain enhancement: pills used to "improve" mental faculties and personalities are becoming ever more available, resulting in a shifting definition of "normality." With the opportunity to enhance the brain, society and neuroscience have joined forces to "medicalize" normality. That is, there is an increasingly blurred delineation between normality and pathology, as society recasts formerly "normal" human behavior as a "medical" issue (Chodoff, 627). The desire to label more and more human behaviors has led to a group

called the "worried well," defined as "patients who feel ill but have no organic disease and who account for so many visits to the doctor's office" (Talbot, 10).

Not surprisingly, there is an accompanying ethical debate underlying the medicalization of normality. Bioethics professor Carl Elliott sums up the debate as follows: "This, in a nutshell, is the problem that follows enhancement technologies wherever they go: the American obsession with fitting in, countered by American anxiety about fitting in too well" (Elliott, xv). As society becomes increasingly more medicalized, there is a danger that brain-enhancement drugs will become personality-determining drugs that strip individuality and exploit the concerns of the worried well. However, it can also be argued that medicalization has encouraged and enabled more truly sick people to seek the help they need. By exploring the major stakeholders in the medicalization of normality (doctors, pharmaceutical companies, patients/consumers, and insurance companies) and conducting a case study of an illness that has been medicalized in recent years (depression), it is clear that the gray area between normality and pathology needs to be sharpened so that enhancement remains a personal choice and not a professional, society-driven compulsion.

The "Prozac Nation" Phenomenon

One of the most prevalent cases of medicalization in the 1980s and 1990s occurred with depression, defined by the National Institutes of Mental Health (NIMH) as an episode that "interferes with daily life, normal functioning, and causes pain for both the person with the disorder and those who care about him or her" (NIMH, 1). The drug Prozac, manufactured by pharmaceutical company Eli Lilly, was approved to treat depression by the Food and Drug Administration (FDA) on December 29, 1987; as proof of how influential Prozac has been, *Time*

magazine considers this day one of "80 Days That Changed the World," alongside the 9/11 attacks and the day Winston Churchill became Prime Minister. *Time* reporter Alice Park writes of the FDA approval, "At first, just scientists were excited, because Prozac, as the Eli Lilly company christened it for the market, was the first in a new class of medications that would treat depression by exquisitely controlling the levels of serotonin, a brain chemical involved in mood" (Park, 1). Coinciding with the release of Prozac, however, was a $20 million advertising campaign marketing depression, which enabled Prozac to reach a much wider audience than just scientists (Das, 1). Drawing on this idea is Elliott's description of pharmaceutical company SmithKline Beecham's advertising campaign for its social phobia drug, Paxil:

> No conscious effort to sell Paxil is evident. The point, however, is that SmithKline does not need to sell Paxil. What they need to sell is social phobia. If an article, a journal supplement, a conference session – or even better, a best-selling book – gets the word out about social phobia, then social phobia is going to be much more widely diagnosed, and the drug that treats it is going to be more widely prescribed. (Elliott, 125)

The same theory applies to depression. By marketing the idea that depression was an under-identified, under-treated mental disorder and removing the stigma surrounding the diagnosis, Eli Lilly found a public niche for its drug. With the publishing of books such as psychiatrist Peter Kramer's *Listening to Prozac* and Prozac patient Elizabeth Wurtzel's memoir *Prozac Nation*, it is clear that Prozac – and more broadly, the treatment of depression – had achieved cult status by the mid-1990s. Furthermore, Elliott describes the impact of corporate projects such as Eli Lilly's National Depression Awareness Day:

> National Depression Awareness Day began in 1991 and is now a national media event. In October of each year, hospitals and universities around the country offer free depression screening. People are encouraged to dial twenty-four-hour 800-numbers and take an automated depression screening test. At the end of the test, a computer analyzes the score and tells the person the severity of his or her symptoms. Who pays for the press kits, the 800-numbers, and the depression screening kits? Eli Lilly, the manufacturer of Prozac. (Elliott, 125)

This public relations strategy encapsulates the best and worst angles of the brain enhancement debate: Eli Lilly is benevolent in the sense that it is enabling hospitals and universities to destigmatize depression and reach individuals who might be suffering. At the same time, however, it could be deemed exploitative in that individuals who are not truly depressed may find that the automated screening test identifies them as such. This kind of publicity is one of the factors responsible for causing more people to seek help for depression.

A *Scientific American* interview conducted by science journalist Jonah Lehrer with professors Allan Horwitz and Jerome Wakefield (also authors of the book *The Loss of Sadness: How Psychiatry Transformed Normal Sorrow into Depressive Illness*) corroborates this view. The professors argue that there has not been an increase in the prevalence of depression, but rather an increase in the number of people seeking help for it. Additionally, Horwitz and Wakefield say that what could account for the increase in visits is that "psychiatry and the other mental health professions have used a definition of depression that conflates genuine depressive disorder with intense, but normal, states of sadness," thus labeling people who have symptoms consistent with the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-III) with depression in as little as two weeks (Lehrer, 1). They link this conflation of temporary intense sadness and genuine depression to a shift in the 1980 DSM-III, which basically changed the diagnostic criteria for depression to a checklist of signs and symptoms. Though intended to standardize the cases that doctors diagnosed as depression, these checklists have also allowed "all symptoms, even those proportionate to their provoking cause, [to be] defined as disordered. This change means that intense natural reactions to loss events as well as disordered responses have been seen as mental disorders" (ibid, 1). Thus, "screening days" require even more cautious handling to prevent unwarranted diagnoses.

The change in diagnostic criteria illustrates professor and anthropologist Joseph Dumit's discussion of a paradigm of "inherent illness" replacing one of "inherent health," widely seen in the Kupfer curve that illustrates depression (Dumit, 2). "Inherent illness" implies that drugs are needed to return the body to a state of normalcy, but that normalcy is something that must be maintained. As with cancer, there are periods of remission in which symptoms are not present; but without proper maintenance, the cluster of depression symptoms will reappear and accumulate into a syndrome. Given the nature of the surveys, Dumit says it is a rarity for a person to exhibit none of the symptoms of depression, which implies that an individual is always moving toward the disease rather than stagnating or recovering. This gives rise to the idea that normal behavior requires lifelong medication and is just a step away from being abnormal, and it is a major factor in medicalizing normality. For instance, there is the idea that normality is an unsteady state, and that there is a "risk territory" just above the syndrome line that ties to Kramer's idea of "diagnostic creep," in which more cases are blanketed under the same diagnosis (ibid, 2).

Perhaps most important is the point of shifting criteria for pathology affecting consumers, doctors, pharmaceutical companies, and insurance companies alike: "On a personal level, it shifts a large number of people into or out of 'really' being ill. Socially, it shifts these people into or out of official diagnostic categories, with big market consequences for medications" (ibid, 2). For consumers/patients, a diagnosis of a mental illness can legitimize their troubles as more than just typical social problems, providing a support for tough times. Furthermore, having or not having a "real" illness determines whether or not a patient qualifies for treatment from his insurance company; if the patient does, and if pharmacological interventions are cheaper than psychotherapy, it is not a surprise that companies typically prefer the former. Doctors are able to

categorize social problems as medical problems, which allows them to reimburse for services. Pharmaceutical companies benefit from both an expanded range of people that they can market to and a larger scope of their advertising, which can be more geared toward accommodating lifestyles than treating serious and non-photogenic problems. Lastly, the shifting criteria for treating pathology versus normality results in the question of whether it is ethical to medicate personality, particularly if it falls in the "risk territory" just above the syndrome line.

Medicating Personality: The Story of Tess and its Implications

A now-classic example of the decision to treat personality is that of Tess, the middle-aged, divorced woman that Kramer treated for depression and memorably writes about in his book, *Listening to Prozac*. When Kramer first met Tess, she fit the clinical signs for depression and was subsequently prescribed ipramimine. Eight months later, Tess no longer exhibited signs of classic depression, but Kramer was still not satisfied with her quality of life. When the FDA cleared Prozac for use, he wrote Tess a prescription "for entirely conventional reasons – to terminate her depression more thoroughly, to return her to her 'premorbid self.' My goal was not to transform Tess, but to restore her" (Kramer, 7). But instead of restoring her, Prozac transformed her: Tess, who had always led an unsuccessful love life, suddenly became popular with men. She was more competent and confident in her job, and she changed her social circle. After nine months of medication, Tess went off the medication for eight months before returning to Kramer. Interestingly, she claimed, "I'm not myself" – strong words for a patient who had spent about 30 years off the medicine and only nine months on it.

Herein lies the problem that worried Kramer and continues to trouble psychiatrists and ethicists: should antidepressants be used off-label to treat people who are not clinically

depressed, or even to treat the "two-week" bout of depression/intensely sad feelings that Horwitz and Wakefield describe? Put more simply, should drugs like Prozac be prescribed to treat personality and numb pain? One of Tess' reasons for wanting more Prozac was losing the clarity and efficiency that she had become accustomed to using in both her negotiation-heavy job and her personal life. Kramer mentions that another chronically depressed patient came up to him on the street, telling him that she had changed her name to "Mrs. Prozac," because of the change it produced in her shy demeanor (Kramer, 11). But it is not clear that being inefficient or introverted, or even being attracted to abusive relationships, is actually indicative of depression. And if there is no clear, organic medical problem, medicating individuals with Prozac falls under treating the worried well.

Here, it is obvious that there is a demarcation between "treating depression" and "prescribing antidepressants." Unfortunately, it is also obvious that this demarcation grew blurrier after the 1980 publication of the DSM-III, causing doctors to worry more about whether medicating the worried well would result in a generation of individuals with no real individuality or sense of self. This fear has already garnered some evidence from physician Richard Friedman, who writes about several patients on antidepressants in a *New York Times* article: "'I've grown up on medication,' my patient Julie told me recently. 'I don't have a sense of who I really am without it'" (Friedman, 1). Julie was a patient of Friedman's who was on antidepressants after attempting suicide several times and believed that the medication had saved her life. But her case highlights the uncertainty of medicating the worried well: is it worth it to "enhance" the brain in a non-life-threatening situation if it means potentially sacrificing individuality and appropriate psychological development? What happens when people considered healthy to begin with start to equate themselves with the drugs they take?

Ethical Issues with "Cosmetic Psychopharmacology"

As touched upon above, one of the most pressing ethical issues behind brain enhancement is whether altering brain chemistry leads to changes in personality. If so, does that change constitute a problem if it is desired? There are two fronts on which this issue should be addressed, summed up by *The Economist* as follows: "Some worry that this [neurotechnology] may blunt the differences between individuals, turning society into one homogenous mass. Others see the opposite risk – a Gattacaesque division between the privileged and the unenhanced" (*The Economist*, 3).

Regarding the first concern, the danger of taking drugs such as Prozac for enhancement purposes is that they have a tendency to overrule more subtle personality traits, perhaps leading to identically vibrant, outgoing personalities. Current forms of enhancement such as cosmetic surgery and hair dye lead to physical changes, but perhaps the reason that they are so readily accepted is that they do not alter anything related to thought or emotion and allow inner individuality to be retained. Furthermore, they can certainly be used to make individuals fit in (covering up gray hair), but they can just as easily be used to make individuals stand out (dyeing hair bright blue). A better analogy may be that of the non-pill brain enhancement technologies that society is already partial to: the cup of coffee to brush away the morning fuzziness, the evening energy drink used as a "pick-me-up," the ginkgo biloba used to "naturally" improve memory, and the Vitamin C to ward off colds and boost the immune system. But these enhancements are short-lived, and thus the changes are reversible in a way that altering brain chemistry may not be. The question of individuality comes down to the permanence of the intervention, and the effect that such an intervention has on typical development. It would be

unreasonable to suggest that ingesting a cup of coffee will permanently alter a person's personality by facilitating better alertness, but it is plausible to suggest that a pill causing the cortex to thicken would directly increase a person's intelligence quotient while simultaneously affecting another personality trait – and that is a dangerous distinction.

Additionally, the use of cosmetic psychopharmacology is a matter of fairness, of whether neurotechnology is just one more way to separate the "haves" from the "have-nots." But we live in a socioeconomically governed world, and it would be naïve to expect that wealthier citizens would not exploit their increased resources to gain advantages over poor citizens. In a few years, well-off high school students aspiring to attend prestigious colleges may skip the expensive SAT Reasoning Test preparation classes and instead take a cocktail of Prozac and other efficiency/alertness drugs each morning. It would certainly require less effort, which may be the resounding effect of brain enhancement: creating lasting effects in an individual without necessitating the luxury of time and energy. Whether this would be a progressive or regressive development remains to be seen; steering society toward a competition-driven model in which people use enhancements to keep up could improve efficiency and effectiveness immensely, but it could also create an even more overmedicated, neurotic, and malfunctioning society. The ethicality of neurotechnology shortcuts has yet to be resolved; regardless, it appears as though brain enhancement is here to stay.

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