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Aspiring to Autonomy: An Ethical Phenomenology of DBS for Depression

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An abstract of
A dissertation submitted to the Faculty of the
James T. Laney School of Graduate Studies of Emory University
in partial fulfillment of the requirements for the degree of
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in the Graduate Division of Religion
2023

Abstract

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By Keenan Wills Davis

Mainstream bioethics tends to treat the concept of "autonomy" as little more than the satisfaction of one's current preferences, a relatively procedural and value-neutral approach. Numerous scholars have critiqued this approach as superficial and proposed instead a "relational" reconfiguration—one that attends to the myriad factors that shape and make possible an individual's ability to choose. "Relational autonomy," with its greater sensitivity to embodied and socially embedded context, is an important step in the right direction. However, proponents still typically frame the exercise of autonomy in terms of decision-theory, as the enactment of one's preferences in a given moment. In reality, autonomy is a capacity that develops over time. Our desires change in response to the demands and affordances of concrete situations, often as we mature and grow. Nowhere is this clearer than in the experiences of patients overcoming treatment-resistant depression through the use of Deep Brain Stimulation (DBS). Bridging the medical and the metaphysical, this dissertation explores those changes to patients' desires as they seek to recover from psychiatric illness and reestablish the autonomy that had been impaired by their depression. I juxtapose patients' firsthand accounts with the thought of 20th-century philosophers Emmanuel Levinas and Iris Murdoch to analyze the ways in which autonomy is the cultivated capacity to escape ego-protective coping mechanisms in order to attune well to our shared reality and our responsibilities to others. This ethical phenomenology of recovery culminates with an account of "aspirational autonomy," in which I argue that autonomy is only intelligible in an aspirational context as individuals orient themselves to the good in response to the normative demands of their relationships of obligation. As the DBS patients demonstrate, autonomy is given substance and direction by a prior heteronomy—by the ability to pay attention and respond to the needs of particular others.

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Dedicated to my grandfather, Dr. Albert Ayerst Carr, of blessed memory,

for opening my eyes to the transcendent.

Acknowledgements

We all find ourselves in networks of obligation, of giving and receiving. The significance of these relationships for health, wellbeing, and the success of any major undertaking is a central theme throughout this dissertation. My journey writing this dissertation was only possible because of how much I have received from those around me. I am grateful to find myself so indebted to so many people.

I would first like to acknowledge the staff, faculty, and my colleagues at Emory's Graduate Division of Religion for maintaining a wonderful, supportive environment in which to develop as a scholar and teacher. It has been a great privilege to grow these relationships both on campus and off, especially as many of them overflowed into the Toco Hills community. Many thanks also to everyone at Emory's Center for Ethics, Neuroethics program, Center for Contemplative Science and Compassion-based Ethics, Center for Mind, Brain, and Culture, and Medical Humanities Interest Group at the School of Medicine for creating spaces for discussions that sharpened my thinking on this project's subject matter.

More particularly, I would like to express my deepest gratitude to my advisor, Dr. Don Seeman. I could not have asked for a better mentor through this process. Our conversations—about everything from medieval theology to existential anthropology, Jewish day schools, and beyond—have been one of the most enjoyable elements of my graduate student experience, always enlightening and stimulating. Thank you for serving as a steadying presence, simultaneously focusing my enthusiasms and encouraging me to explore. I am also truly grateful to have studied under Dr. Pam Hall—thank you for your extraordinary attention and care, both as a reader of my dissertation and as an instructor. Special thanks to my committee members, Dr. Helen Mayberg, Dr. Geshe Lobsang Tenzin Negi, and Dr. Paul Root Wolpe, all of whom are exemplars of thoughtful interdisciplinary scholarship. Thank you for engaging deeply with my ideas and providing insightful recommendations.

Additional faculty members who have been instrumental in my development as a scholar include Dr. Michael Broyde, Dr. Michael Berger, Dr. Bobbi Patterson, Dr. Donald Batisky, Dr. Patricio Riva-Posse, and Dr. Mel Konner. I am extremely lucky to have learned from all of you. Thank you very much for your support and invaluable guidance over the years. Thanks also to Dr. Eric Goldstein, Dr. Miriam Udel, and the Tam Institute for Jewish Studies for the cultivation of a vibrant community of scholarship and the consistent support of my work. Old friends and brilliant interlocutors, Jackson Wolford and Roraig Finney deserve special mention here as well. You both have greatly strengthened this dissertation with your close reading and through years of good conversation.

Most of all, I am thankful for the support of my family. To my parents, Lynn and Mitch Davis: thank you for a lifetime of love and encouragement. To Lidia and Raul Krivoy: thank you for cheering me on with your Moisés Ville sensibility. And to Erica, my wife and partner in life: nobody deserves more thanks than you. In your own dissertation, you described me as your “stabilizing force”; I am blessed to be able to acknowledge here that we stabilize each other. You are my *eishet chayil*, heroically sustaining our family, making this adventure and my work possible. Orli, Abe, Ellie, Aidy, and I are incredibly fortunate, and I am immeasurably grateful, for all that you do for us.

Lastly, I would like to express my sincerest thanks to the DBS trial participants, who granted me the enormous privilege of listening to their stories. Your perceptions and reflections animate this entire project. This is a debt I will never be able to fully repay but which motivates me daily. I hope to have done justice to your experience.

לְךָ֤ ׀ אָמַ֣ר לִ֭בִּי בַּקְּשׁ֣וּ פָנָ֑י אֶת־פָּנֶ֖יךָ ה׳ אֲבַקֵּֽשׁ׃

In Your behalf, my heart says: “Seek My face.”
O LORD, I seek Your face.

- Psalms 27:8

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Author's Note

This project is based on the analysis of interview footage, follow-up conversations, and time spent shadowing neurologists and psychiatrists as they carried out clinical trials and patient care. For the sake of anonymity, I have changed or redacted the names of patients, their loved ones, and the doctors involved. I have also minimally edited some quotations for clarity, careful to maintain their content. While events all occurred as described, I have modified or omitted any details that might serve to identify specific individuals.

Additionally, block quotations featuring material from the interview transcripts have been set in a different font (Calibri) and formatted with a lefthand border to distinguish them visually.

List of Abbreviations

BA25	Brodmann Area 25
DBS	Deep Brain Stimulation
DMN	Default Mode Network
ECT	Electroconvulsive Therapy
SCC	Subcallosal Cingulate Cortex
SSRI	Selective Serotonin Reuptake Inhibitor
TMS	Transcranial Magnetic Stimulation
TRD	Treatment-resistant Depression

רַבִּי חִיָּיא בַּר אַבָּא חֲלַשׁ. עָל לְגַבֵּיהּ רַבִּי יוֹחָנָן
אֲמַר לֵיהּ: חֲבִיבִין עָלֶיךְ יִסּוּרִין? אֲמַר לֵיהּ: לֹא
הֵן וְלֹא שְׂכָרָן. אֲמַר לֵיהּ: הַב לִי יְדָךְ. יְהַב לֵיהּ
יְדֵיהּ, וְאוֹקְמֵיהּ.

רַבִּי יוֹחָנָן חֲלַשׁ. עָל לְגַבֵּיהּ רַבִּי חֲנִינָא. אֲמַר
לֵיהּ: חֲבִיבִין עָלֶיךְ יִסּוּרִין? אֲמַר לֵיהּ: לֹא הֵן
וְלֹא שְׂכָרָן. אֲמַר לֵיהּ: הַב לִי יְדָךְ. יְהַב לֵיהּ
יְדֵיהּ, וְאוֹקְמֵיהּ.

אַמַּאי, לוֹקֵים רַבִּי יוֹחָנָן לְנַפְשֵׁיהּ?

אָמְרִי: אֵין חָבוּשׁ מַתִּיר עַצְמוֹ מִבֵּית הָאֲסוּרִים.

Rabbi Chiya bar Abba fell ill.
Rabbi Yochanan went up to visit him.
He said to him, "Is your suffering dear to you?"
Rabbi Chiya said to him, "Neither they nor their reward."
Rabbi Yochanan said to him, "Give me your hand."
He gave him his hand, and he restored him.

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He gave him his hand, and he restored him.

Why? Let Rabbi Yochanan restore himself!

They say, "A prisoner cannot free himself from prison."

-Berachot 5b,
Babylonian Talmud

Chapter 1: Introduction – The Concept of Autonomy

I met Susan only once face-to-face eight years after an experimental deep brain stimulation (DBS) device was implanted into the white matter of her brain. This was done as part of a clinical trial aimed at the alleviation of treatment-resistant depression (TRD). We had a captivating and wide-ranging conversation about her experience as a patient overcoming her illness, reflecting on her journey from a nearly catatonic state to freedom from depression. She highlighted many changes, both dramatic and subtle, to her way of seeing and being in the world. We covered everything from relatively quotidian issues, such as keeping the device's battery charged, to questions of ultimate significance, what a number of patients referred to as the "spiritual" or "existential." These she recounted had taken on new meaning as her recovery progressed. As a student of medicine and religion both, I was fascinated by the ways in which these elements of her experience—from the mundane to the metaphysical, and everything in between—dynamically influenced each other and coalesced into a unified experience. More than anything, the conversation reinforced a central theme: DBS treatment requires much more than the flip of a switch. I came away from our exchange all the more motivated to share her story and the stories of DBS patients like her.

A few things made this interview somewhat strange. First of all, it was not truly face-to-face. With many Covid restrictions still in place at the time, we met over Zoom—certainly better than a phone call, but hardly a substitute for in-person interaction for getting a self-described introvert to come out of her shell. Even more unusual was the radical asymmetry that resulted from the fact that I had already, in a sense, spent a great deal of time with Susan, having watched, transcribed, coded, and analyzed countless hours of her recorded interviews with the trial's team of psychiatrists as they followed her progress in the months and years after her surgery. While, for her, I was a stranger asking oddly specific questions, to me she was someone whose voice had become extremely familiar.[1] Due both to this sense of connection and my responsibility as a researcher, my side of our conversation was suffused with the hope that my thematic findings would ring true to her—that my interpretations were reasonable, representative, and accurate. I felt, in short, a strong desire to do justice to Susan's experience. Fortunately, the few differences of interpretation that did arise only provided greater clarity and nuance, as will become evident in later chapters. Even after carefully analyzing dozens of her prior interviews, I gleaned crucial insights from this final follow-up conversation that would help direct my efforts to give voice to the DBS patients as they told their stories of recovery.

Susan had first arrived at Emory University's Brain Health Center suffering from treatment-resistant depression. For most patients, TRD means cycling for years through various interventions—antidepressant medications, electroconvulsive therapy (ECT), transcranial magnetic stimulation (TMS), and different styles of psychotherapy—and finding only fleeting responses, or none at all. Like the other participants, she saw this DBS trial, headed by Dr. Helen Mayberg, as her "last hope" and consented to everything it required. This included the initial brain surgery, moving to Atlanta for six months, weekly interviews with a team of psychiatrists, and a regimen of cognitive behavioral therapy with a psychologist.[2] The trial also demanded various scans and tests at different points. On some days, the team would apply a net of surface electrodes to her scalp to get electrophysiology readings; alternatively, she might be taken for a PET scan to evaluate shifts in the activity of particular brain circuits. On other days, she would watch affecting scenes from popular movies and answer questionnaires about her emotional responses. Before every psychiatric interview, she was asked to hold her smile for a video camera so that researchers

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[1] It was almost like the time I met the host of a podcast that I listen to religiously, his voice permanently imprinted in my mind.

[2] Some of the participants are local residents of the Atlanta area, avoiding the need to uproot their lives for the duration of the study.

could use deep learning methods to see if any diagnostic patterns of facial muscle movement could be found. All of this was in search of "biomarkers," to better explain the pathophysiology of depression and to better understand the mechanism of action of the DBS itself.[3] Indeed, even when neuromodulation technologies "work," we very often do not know precisely how or why. For Susan, fortunately, it did work.

Consider these two exchanges, one from Susan's first interview as a participant in the trial and another from the one-year mark:

One month before DBS implantation:

> Psychiatrist 1: Of all the aspects of depression that you were mentioning, which of them is the main thing you would notice if it was gone? What is its most prominent feature?
>
> Susan: It's more about what will be there and not what will be gone. Caring will be there, the ability to care about things. But I don't know exactly what would be gone… the emptiness, the bleak sense that there is a tunnel that I'm looking through and there's just blackness around it. And not having any interest in making any of that change. This has been an important metaphor for me to express what it's like: the sense of being in an ocean, with my head just above water, and seeing nothing—no color, no movement, no life, just colorless monotony—and having the sense that I have to tread water or I'm going to sink. And I'm tired. And I don't even want to go swim to see if there's something else. It's just a sense of futility. Maybe that's what would be gone? The sense that doing anything is futile. Maybe less of a despising myself, a kind of disgust at my existence. I don't necessarily compare myself to other people and think that I'm disgusting and everybody else isn't. It's like the whole world is disgusting. Other people don't seem to be bothered by it though… I don't know, I realize that it's not doing me any good hanging out down here in this pit. But I don't have any desire to climb out either. I'm just kind of trapped.

One year after DBS implantation:

> Psychiatrist 2: Looking back, one year into the study now, what did the DBS do for you?
>
> Susan: It's not easy to put into words. It's like I have my life… I was gonna say 'back' but I don't know that I had it before. The state of gratitude every day for being alive and being part of the

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[3] On the history of the search for biomarkers in psychiatry, see Anne Harrington's *Mind Fixers: Psychiatry's Troubled Search for the Biology of Mental Illness*. New York: W.W. Norton & Company, 2019.

> world and for not wanting to die—that's huge. Not just huge, that's magnificent. Now, what did it do? At first it took that opaque dome, that weight off of me and moved me into a world where maybe I could actually start to see color and see clearly and know what was going on around me and have some hope. Then it moved me to where I finally started connecting with other people and felt like I was part of the world… I get sappy about it—it's just beautiful… I couldn't have imagined this. When I was depressed, all I knew was where I was and that I didn't want to be there, but I couldn't imagine what this would feel like… I'm more spontaneous than I think I ever was before. I notice I'm more likely to speak up, like at work, without needing to think really hard about something before I say it. And maybe that's how I am at my core, but that never came out before. I feel good. I'm just more engaged with the world.

Susan's first interview as a participant in the DBS trial provides a glimpse into depression's all-consuming nature. Note her profound alienation from the world, the palpable restrictions on what she sees and feels. Alone treading water or in the depths of her dark pit, almost nothing seems possible, desirable, or worth caring about. For her and other DBS patients, depression manifested as the loss of dynamic subjectivity. In its throes, sufferers are reduced from active, desiring subjects to something more like a static object, incapable of experiencing let alone pursuing desires.

Compare this with Susan's reflection after one year with the DBS active: her perception, motivation, and senses of connection and belonging are all restored. She is again capable of living. Her landscape of salient possibilities has expanded, both spatially and temporally, and gained in color and clarity. Her subjectivity has returned. She has hope. Between this interview and my follow-up, Susan achieved full remission—both self-reported and according to the pre-defined criteria of the clinical trial (measured using standardized depression rating scales—see Footnote 10 below). Hers is the ideal outcome. But, as we will explore, her journey to recovery involved much more than turning on the DBS device. DBS treatment is an extended project of self-cultivation, in which patients must learn how to responsibly navigate their restored capacities and give shape to their autonomy.

Perspectives on the Ethics of DBS

A June 2023 report published by the Centers for Disease Control and Prevention (CDC) indicates that nearly 1 in 5 adults in the US have been diagnosed with depression at some point in their lifetime.[4] Worldwide, this number rises to over 300 million people.[5] Approximately one-third of these cases qualify as treatment-resistant, meaning that they fail to respond to at least two antidepressant interventions.[6] Read alongside subjective reports like Susan's, such statistics make clear that depression is an enormous source of suffering in the world. Moreover, depression is a recurrent illness, with each episode increasing the risk of future episodes by 20% per year.[7] As we will examine in greater detail in Chapter 2, depressive disorders are reinforced through a self-perpetuating cycle.

Various novel antidepressant treatments have been proposed to interrupt that cycle and are currently being investigated in clinical trials. Pharmacological drugs represent one avenue of attack, but so also do transcranial magnetic stimulation (TMS), Vagus nerve stimulation (VNS), and the topic of this project, deep brain stimulation (DBS), which is being tested for the most severe and treatment-resistant cases. DBS involves the surgical implantation of electrodes into specific regions of the brain in order to therapeutically alter local brain activity through electrical stimulation. Colloquially referred to as a "pacemaker for the brain," DBS is a well-established treatment for movement disorders such as Parkinson's disease, dystonia, and essential tremor. Hundreds of thousands of patients around the world currently live with an implanted device. In this dissertation, I will be analyzing the experience of patients with treatment-resistant depression undergoing DBS

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[4] Lee, Benjamin et al. "National, State-Level, and County-Level Prevalence Estimates of Adults Aged ≥18 Years Self-Reporting a Lifetime Diagnosis of Depression — United States, 2020." *MMWR. Morbidity and Mortality Weekly Report* 72, no. 24 (2023): 644–50.

[5] World Health Organization. "Depression and Other Common Mental Disorders: Global Health Estimates." Geneva, 2017.

[6] Holtzheimer, Paul E., and Helen S. Mayberg. "Stuck in a Rut: Rethinking Depression and Its Treatment." *Trends in Neurosciences*, 34, no. 1 (Jan. 2011): 1–9, https://doi.org/10.1016/j.tins.2010.10.004.

[7] Solomon, D. A. et al. "Multiple Recurrences of Major Depressive Disorder." *American Journal of Psychiatry* 157, no. 2 (February 1, 2000): 229–33.

of the subcallosal cingulate cortex (SCC), a technique pioneered by Dr. Mayberg.[8] Her research team is one of the first to investigate DBS for the treatment of psychiatric conditions.[9]

DBS trials for depression began in 2005. Since then, there have been only a few hundred participants, but they have generally seen promising outcomes. Open-label SCC DBS studies resulted in response rates of 50-60% and remission rates of 30-40%, and long-term follow-up of the earliest cohorts reveals that these responses were sustained at 6 and 8 years.[10] It is important to note that a major multi-site randomized controlled trial was discontinued after not showing statistically significant responses at the 6-month point. However, follow-up with those patients at 18- and 24-months revealed response rates around 50% as one might have expected.[11] With almost two decades of data available now, it appears that the antidepressant effects of DBS tend to solidify gradually over time and serve as a bulwark against future depressive episodes.[12] Patients not only avoid reentry into past vicious cycles—they are empowered to initiate new virtuous cycles instead.

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[8] In Chapter 2, we will dive more deeply into the neuroscience behind the function of this specific brain region.

[9] Inclusion criteria for this trial required participants between 18 and 70 years of age to have a diagnosis of major depressive disorder or bipolar II disorder that has not responded to at least three antidepressant therapies and psychotherapy. They must also be in a current depressive episode that has lasted at least 12 months with a score of at least 20 on the Hamilton Depression Rating Scale (HAM-D) and less than 50 on the Global Assessment of Functioning Scale (GAF). Patients must also have attempted electroconvulsive therapy (ECT) unless it was logistically unavailable. They were assessed for inclusion by a minimum of two psychiatrists. Patients were excluded if they had a history of psychosis, personality disorders, or were at imminent risk of suicide. Interestingly, several patients described long-term adverse effects of their experience with ECT, including problems with memory retrieval, language fluency, and executive function. These can complicate their course of recovery with DBS, as they emerge from the fog of depression and find that cognitive impairments remain.

[10] Response is defined as a 50% decrease in depression severity from baseline as measured on the Hamilton Depression Rating Scale (HAM-D), while remission is defined by reaching the pre-specified cutoff of 7 or less on the same scale. On long-term follow-up, see Kennedy, Sidney et al. "Deep Brain Stimulation for Treatment-Resistant Depression: Follow-up after 3 to 6 Years." *American Journal of Psychiatry*, 168 (2011): 502–10. See also: Crowell, Andrea L. et al. "Long-Term Outcomes of Subcallosal Cingulate Deep Brain Stimulation for Treatment-Resistant Depression." *American Journal of Psychiatry* 176, 11 (2019): 949–56.

[11] Holtzheimer, Paul. "Subcallosal Cingulate Deep Brain Stimulation for Treatment-Resistant Depression: A Multisite, Randomised, Sham-Controlled Trial." *Lancet Psychiatry* 4, no. 11 (November 2017): 839–49. Interestingly, the arbitrariness of the trial's 6-month end point was a recurring theme in conversations with the patients, as they reflected on the pressure they felt to recover according to a particular timeline. Most responders show some degree of improvement before this 6-month point but go on to see their greatest progress later.

[12] "The failures [of the multi-site trial] were not due to the method… but to commercial haste," according to psychiatrist Thomas Schläpfer in Lone Frank's *The Pleasure Shock: The Rise of Deep Brain Stimulation and Its Forgotten Inventor* (New York: Dutton, 2018: 118). Frank's *The Pleasure Shock* includes interviews with Schläpfer and Mayberg, among others, about the history and uses of DBS.

Indeed, *habituation* is a central theme in TRD recovery, and one that will recur throughout this dissertation.

Alongside these encouraging findings, a debate has arisen in the pages of various bioethics journals questioning whether or not DBS should be considered a problematic technology. Mostly based on reports of rare side effects from patients using DBS to treat their Parkinson's disease, a large number of articles have theorized the ways in which DBS may be a "threat" to a patient's identity, authenticity, or autonomy. While worries about the impact of neurotechnologies on a person's identity swelled in the wake of Peter Kramer's *Listening to Prozac* in 1993, there has been a "speculative neuroethics bubble" in the last several years about the risks of DBS in particular, as detailed by Frederic Gilbert and his coauthors.[13] They draw our attention to the abundance of abstract theorizing about potential personality changes caused by DBS, as well as the relative dearth and narrowness of actual empirical data supporting these speculations. A great many of these articles emerged in response to the 2006 studies by Schupbach et al. and Agid et al. in which 29 DBS patients were interviewed as they were treated for Parkinson's disease. Despite substantial relief of their motor symptoms, some patients recounted difficulties in readjusting to a symptom-free way of life. Their way of being in the world had changed dramatically, and this took some getting used to. Still fewer patients formulated these difficulties in more extreme language of self-estrangement ("I don't feel like myself anymore") and altered body-image ("I don't recognize myself").[14]

In the years after these two reports were published, numerous scientists and philosophers have weighed in with their interpretations of these changes. One of the earliest and most prominent contributions was that of Marya Schechtman, who offers a narrative account of personal identity

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[13] Gilbert, Frederic, J. N. M. Viaña, and C. Ineichen. "Deflating the 'DBS Causes Personality Changes' Bubble." *Neuroethics* 14, no. S1 (June 19, 2018): 1–17.

[14] Schupbach, M. et al. "Neurosurgery in Parkinson Disease: A Distressed Mind in a Repaired Body?" *Neurology* 66 (2006): 1811-1816. and Agid, Y. et al. "Neurosurgery in Parkinson's Disease: The Doctor Is Happy, the Patient Less So?" *Journal of Neural Transmission Supplementa* 70 (2006): 409–14.

with which to understand patient experiences and decision-making.[15] She suggested that the dramatic, sudden, and "global" changes to psychological traits that occur due to DBS might be understood as a "break" in one's narrative sense of self.[16] One's experience of the world is so radically different following the initiation of treatment that their identity might legitimately be described as disrupted, the "happy person" discontinuous with the "depressed person." Felicitas Kraemer, for this reason, argues that the concept of authenticity is ethically relevant.[17] In those cases where DBS induces feelings of alienation from the self or causes patients to behave in ways that they feel do not reflect their identity, recourse to the concept of an "authentic self" could provide us with a standard for assessing the benefits or harms of treatment.

Other commentators, like Francoise Baylis, argue that the notion of authenticity is a distraction. She suggests that DBS need not be seen as uniquely disruptive of a patient's narrative identity, so long as it does not cause them to behave in ways they would not have otherwise.[18] In fact, it is no more a threat than any other major life event. The narrative of self is dynamically negotiated and constituted by the twists and turns of one's life—some chosen, most unchosen. What matters chiefly on her account is that the patient remains competent to reflect and to choose, to be an autonomous agent at all, even a changed one. Catriona Mackenzie and Mary Walker build on this line of thought by exploring another popular case study—"the Dutch patient," who is described as being forced to choose between DBS-induced mania or returning to a life with his Parkinson's symptoms. His case, they posit, demonstrates that "the appeal to authenticity" is not ethically instructive as it "blurs the distinction between narrative identity and autonomy."[19] They,

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[15] Schechtman, Marya. *The Constitution of Selves*. Ithaca: Cornell University Press, 1996.

[16] Schechtman, Marya. "Philosophical Reflections on Narrative and Deep Brain Stimulation," *Journal of Clinical Ethics* 21, no.2 (2010): 133-139.

[17] Kraemer, Felicitas. "Me, Myself, and My Brain Implant: Deep Brain Stimulation Raises Questions of Personal Authenticity and Alienation," *Neuroethics* 6 (2013): 483-497.

[18] Baylis, Francois. "'I Am Who I Am': On the Perceived Threats to Personal Identity from Deep Brain Stimulation" *Neuroethics* 6 (2013): 513-526.

[19] Mackenzie, Catriona, and Mary Walker. "Neurotechnologies, Personal Identity, and the Ethics of Authenticity." Edited by Jens Clausen and Neil Levy. *Handbook of Neuroethics*, September 29, 2014, 373–92.

too, ultimately conclude that what really matters is whether DBS impairs a patient's ability to exercise autonomy "to such an extent that he is unable to engage in narrative self-revision" in the first place.[20] The capacity for autonomy, "a competence involving a complex repertoire or suite of reflective skills," through which we determine what we value and desire, is most foundational.[21]

As Gilbert et al. point out in their critique, the vast majority of contributions to this discourse are speculative and abstract, based largely on a handful of unusual, contextless case studies. While there is certainly an important place for theoretical neuroethics, the comparatively small number of empirical studies can only carry us so far as we try to work out the actual impact of DBS on patients' sense of self and autonomy, especially when it comes to conditions other than Parkinson's disease. For instance, in treating psychiatric illnesses like depression, recovery is necessarily defined by a change in how patients experience themselves and their autonomy.[22] It is a goal of the treatment. As we will see from a variety of angles in the coming chapters, many patients in Dr. Mayberg's DBS trial suffer from such severe depression that they experience essentially no desires whatsoever, finding nothing in the world to be salient or enticing. Their recovery is characterized by a rekindling of the capacity for desire and a long journey of learning what their desires ought to be. Effective DBS treatment of severe depression, in short, amounts to a comprehensive reorientation of consciousness. On what grounds, then, are we to distinguish which changes represent a "threat" and which constitute a successful response to the therapy? How should we understand and ethically evaluate the phenomenological transformation experienced by patients as they overcome their illness?

Nearly everyone agrees that a more informed debate will require more empirical research. Privileging the methods of clinical research and quantitative science, Gilbert et al. argue that we

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[20] Mackenzie and Walker, "Neurotechnologies, Personal Identity, and the Ethics of Authenticity," 390.

[21] Mackenzie and Walker, "Neurotechnologies, Personal Identity, and the Ethics of Authenticity," 387.

[22] Carl Elliott famously raised questions about whether severely depressed patients should be understood to have meaningful autonomy at all. See Elliott, Carl. "Caring about Risks." *Archives of General Psychiatry* 54, no. 2 (February 1, 1997): 113-116. We will address this topic specifically in Chapter 2.

should work toward developing increasingly precise measurement tools and conducting more randomized controlled trials that investigate the effects of DBS on personality before drawing any strong conclusions. Snoek et al. grant the point that there is a striking asymmetry between neuroethical theorizing and empirical studies, but they push back against Gilbert et al.'s implied hierarchy of acceptable evidence, arguing that, in fact what we need is a greater focus on "qualitative research combined with philosophical investigation."[23] They insist on an interdisciplinary research agenda moving forward that not only responds to the need for empirical research but also embraces the challenge of deepening our understanding of relevant philosophical concepts like autonomy and identity. Bluhm et al. sound a similar note as they suggest that we ought to turn our focus from the rare extreme cases and toward the quotidian: what is it like to be a patient undergoing treatment with DBS?[24] We will learn more, they contend, by attending to patients' actual concerns, not our own philosophical hobbyhorses. They suggest that in future qualitative research we should ask "not whether DBS is a threat to a person's narrative identity, but how members of this group incorporate DBS into the other narratives that define them."[25] Lastly, Zuk and Lazaro-Munoz echo this sentiment in their response to Gilbert et al, emphasizing the importance of disambiguating the discipline's favored concepts, especially autonomy, as well as the particular factors that might undermine or promote them.[26] They direct us to critically juxtapose

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[23] Snoek, Anke, Sanneke de Haan, Maartje Schermer, and Dorothee Horstkötter. "On the Significance of the Identity Debate in DBS and the Need of an Inclusive Research Agenda. A Reply to Gilbert, Viana and Ineichen." *Neuroethics* 14 (2021): 72.

[24] Bluhm, Robyn, Laura Cabrera, and Rachel McKenzie. "What We (Should) Talk About When We Talk About Deep Brain Stimulation and Personal Identity." *Neuroethics* 13 (2020): 289–301. This strategy has been increasingly popularized following the so-called "ethical turn" in anthropology, with the creative dialogue between philosophy, psychology, and anthropology developing at a rapid pace. This dissertation is greatly influenced by such innovative work. For an excellent overview of this new subfield of Anthropology of Ethics, see: Mattingly, Cheryl, and Jason Throop. "The Anthropology of Ethics and Morality." *Annual Review of Anthropology* 47, no. 1 (2018): 475–92.

[25] Bluhm, Cabrera, and McKenzie, "What We (Should) Talk About…," 299.

[26] Zuk, Peter, and Gabriel Lázaro-Muñoz. "DBS and Autonomy: Clarifying the Role of Theoretical Neuroethics." *Neuroethics* 14 (2021): 83–93.

the ways in which patients experience autonomy first-hand with more "traditional" theories of autonomy to see how they might illuminate one another.[27]

That is precisely what this dissertation seeks to do. Shockingly little qualitative analysis has been written about DBS as it is used to treat depression. The research that does exist predominantly focuses on matters of informed consent.[28] My project, on the other hand, applies a phenomenological lens to DBS treatment, interrogating the experience of dynamic subjectivity regained and asking what it means for that most treasured bioethical principle, autonomy. I do this, primarily, by exploring years of in-depth patient interviews conducted by the study's team of psychiatrists. These interviews began in the month leading up to the initial surgery, continued weekly until six months after the device's activation, and then were conducted every six months after that. At the time of writing, these patients have now had their device for almost ten years. After transcribing, coding, and analyzing the psychiatrists' interviews, I then conducted my own follow-up interviews with patients during which I asked for their perspectives on the major themes that had emerged.[29] This gave me the opportunity not only to verify that my findings and interpretations made sense, but also to engage more philosophically with the patients, seeing what they had to say about the central concepts that bio- and neuroethics literature has applied to their experiences. My overarching goal was to attend to that which is missed by the existing qualitative

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[27] This recommendation resonates with another contribution to the anthropology of ethics literature, namely the Cheryl Mattingly's "first-person virtue ethics," which explores everyday experiences of agency while engaging philosophically with questions that arise from her fieldwork. My own project is greatly influenced by Mattingly's book *Moral Laboratories*, which puts her ethnographic findings into productive conversation with philosophers like Alasdair MacIntyre and other virtue ethicists as well as Michel Foucault's thinking on self-formation. See: Mattingly, Cheryl. *Moral Laboratories*. Oakland: University of California Press, 2014.

[28] Christopher, Paul P., Yan Leykin, Paul S. Appelbaum, Paul E. Holtzheimer, Helen S. Mayberg, and Laura B. Dunn. "Enrolling in Deep Brain Stimulation Research for Depression: Influences on Potential Subjects' Decision Making." *Depression and Anxiety* 29, no. 2 (2011): 139–46. See also: Fisher, Carl Erik, Laura B. Dunn, Paul P. Christopher, Paul E. Holtzheimer, Yan Leykin, Helen S. Mayberg, Sarah H. Lisanby, and Paul S. Appelbaum. "The Ethics of Research on Deep Brain Stimulation for Depression: Decisional Capacity and Therapeutic Misconception." *Annals of the New York Academy of Sciences* 1265 (2012): 69–79. See also: Leykin, Yan, Paul P. Christopher, Paul E. Holtzheimer, Paul S. Appelbaum, Helen S. Mayberg, Sarah H. Lisanby, and Laura B. Dunn. "Participants' Perceptions of Deep Brain Stimulation Research for Treatment-Resistant Depression: Risks, Benefits, and Therapeutic Misconception." *AJOB Primary Research* 2, no. 4 (2011): 33–41. https://doi.org/10.1080/21507716.2011.627579.

[29] I provide more methodological detail regarding the coding and analysis procedure in Chapter 2.

literature and by the standardized depression ratings and scales—patients' personal, lived, everyday experience. As I will explain further below and in the coming chapters, this dissertation is ultimately styled as an "ethical phenomenology" of patients navigating the process of recovery via DBS, attempting to mold their restored or repaired capacity for autonomy.[30]

Autonomy in Bioethics

Why do I—and so many theoretical neuroethicists—focus on autonomy? I do so because the patients themselves brought it up in practically every interview. Sometimes they invoked the term explicitly, but most often it arose without the need for philosophical vocabulary, as they reflected on their evolving treatment goals and the things that influence their experience of self-determination, self-sufficiency, and freedom from incapacity. At first, in keeping with the depressive tendency to think in black-and-white categories, they very often conceptualized autonomy in binary terms—either present or absent. Eventually, they came to embrace the project of realizing potential over time, of cultivating hard-won autonomy within conditions of dependence, vulnerability, and constraint. The reason why theoretical analyses of DBS generally tend to focus on autonomy is in large part because of its role as the central principle and locus of debate in bioethics. To understand the evolution of how autonomy has become conceptually privileged in the field, we must take a brief historical detour.

The publication of the Belmont Report in 1979 by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research was a foundational moment

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[30] In this dissertation, I use the terms "ethical" and "moral" interchangeably. While some scholars distinguish between the two (often in completely opposite ways from other scholars), the DBS patients that were interviewed for this project and the philosophers on whom I draw for analysis did not, so neither will I. With these terms, I do not only mean rules or principles of conduct; rather, I am referring to the general process of making choices or taking action with regard to one's values.

for the contemporary field of bioethics.[31] The report was a response by the U.S. government to a series of abuses in medicine and medical research, such as the infamous Tuskegee Syphilis Study.[32] It elevated three "basic ethical principles that should underlie the conduct of biomedical and behavioral research involving human subjects" moving forward: beneficence, justice, and respect for persons.[33] Beneficence referred to the maximization of benefit and the minimization of harms, while justice referred primarily to the fair allocation of costs and benefits. Respect for persons was understood to entail the right of patients and research subjects to make autonomous choices as well as the protection of individuals incapable of making their own choices. Strikingly, the commission elected not to define or explore what is meant by "persons," leaving the topic open for debate so as to side-step certain messy questions that they saw as tangential to their immediate goals of protecting patients from paternalism, mistreatment, and exploitation.[34]

Not long after, the Belmont principles were largely superseded by those elaborated in what has become known as the "bible of bioethics," *Principles of Biomedical Ethics* by Tom Beauchamp and James Childress: beneficence, nonmaleficence, justice, and respect for autonomy. Beauchamp and Childress replaced respect for persons with this latter narrower principle. As scholars such as Daniel Callahan have explained, the change of focus fit more easily with the secularizing trends in medicine and bioethics and further avoided confronting the sticky question of personhood.[35] In place of a substantive debate over its definition and implications, they promoted instead a more procedural approach, grounded in what they describe as a minimalist "common morality."[36] Rather

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[31] United States National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. Washington, D.C., 1979.

[32] In these experiments, hundreds of black men and their families were deceived by U.S. Public Health Service researchers, who left their syphilis untreated for as long as forty years, even deliberately depriving the men of effective treatment after it was discovered that penicillin was an effective intervention.

[33] This was the charge in the National Research Act (1974) to which the Belmont Report was responding.

[34] See Tom Beauchamp explaining his reasoning here: https://www.youtube.com/watch?v=v2hrMWEmQLw.

[35] Callahan, Daniel. "Religion and the Secularization of Bioethics." *The Hastings Center Report* 20, no. 4 (1990): 2–4.

[36] Beauchamp, Tom L, and James F Childress. *Principles of Biomedical Ethics*. 8th ed. New York: Oxford University Press, 2019: 2.

than endorse a particular view of the good or of human flourishing, they provided a framework aimed primarily at satisfying individual patients' preferences, regardless of their moral foundations.[37]

Rebecca L. Walker points out that Beauchamp and Childress self-consciously restricted their focus to the matter of autonomous choices—rather than the autonomy of persons.[38] As a result, physicians relying on their so-called "principlist" framework need no longer address tough moral questions with their patients or even really get to know who they are; their task is instead to respect competent patient's expressed desires. Walker refers to this conception of autonomy as a 'black box' view:

> Given any patient meeting a particular description (here competent), proper input (presumably relevant medical information and the lack of coercive or other manipulative pressure), whatever choice or action is the output counts as autonomous and is to be respected.[39]

This relatively content-free, procedural framing has come to define the bioethical mainstream. Consequently, it is not uncommon for practitioners and even scholars to simply equate respect for autonomy with informed consent. While Beauchamp and Childress have clarified in theory the ways in which their notion of autonomy is more nuanced than mere non-interference, a simplistic laissez-faire interpretation of their position increasingly reigns in practice.[40] Quick recourse to

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[37] They do describe limitations and cases in which patients' wishes are to be overridden, but these are the exception to the rule.

[38] Walker, Rebecca L. "Medical Ethics Needs a New View of Autonomy." *Journal of Medicine and Philosophy* 33, no. 6 (2008): 596.

[39] Walker, "Medical Ethics Needs…," 595.

[40] Childress, James F. "The Place of Autonomy in Bioethics." *The Hastings Center Report* 20, no. 1 (1990): 12–17. On Autonomy's rule in practice, see: Wolpe, Paul Root. "The Triumph of Autonomy in American Bioethics: A Sociological View." In *Bioethics and Society*, edited by Raymond DeVries and Janardan Subedi, 39–59. Upper Saddle River: Prentice-Hall, 1998. Analyzing the role of bioethics in medical practice from the perspective of medical

autonomy is made all the more tempting by the fact that it enables health care practitioners (and judges) to avoid conflicts that might arise in the process of balancing competing ethical principles.[41] Furthermore, with the encroachment of consumerist logic into medicine (and ever more areas of human life), respect for autonomy is frequently treated as the prime principle, overriding the other three almost by default.[42]

The principlist framing of autonomy has evolved over time with the iterative republication of *Principles of Biomedical Ethics*, now in its eighth edition. Each update has incorporated additional subtleties and responded to developments in bioethics scholarship, such as feminist, narrative, and relational reconfigurations of autonomy. Nonetheless, Walker explains, there remain questions unaddressed even in the most recent instantiation (from 2019) about what truly counts as respecting autonomy beyond preference satisfaction.[43] According to Beauchamp and Childress, the only criteria that would render a decision non-autonomous are if it was (1) unintentional, (2) uninformed, or (3) coerced.[44] Yet there are many other ways in which one can fail to be autonomous while still meeting these requirements. Examples that Walker provides include weakness of the will (known in philosophy as *akrasia*); problems with theoretical or practical rationality, such as a failure to consider or act in light of long-term implications (what we might call *myopia*); and choices that are significantly at odds with one's deeply held values (what we might

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anthropology, see also: Kleinman, Arthur. "Anthropology of Bioethics." In *Writing at the Margin: Discourse between Anthropology and Medicine*, 41–67. Berkeley: University of California Press, 1995. Kleinman advocates for an "anthropological turn" in bioethics, utilizing ethnographic strategies to complement traditional abstract principles-based analysis. Kleinman's recommendations greatly informed my methodological thinking in this dissertation.

[41] On the enshrining of "expressive individualism" in public bioethics and law see: Snead, O. Carter. *What It Means to Be Human: The Case for the Body in Public Bioethics.* Cambridge: Harvard University Press, 2020.

[42] Moreno, Jonathan D. "The Triumph of Autonomy in Bioethics and Commercialism in American Healthcare." *Cambridge Quarterly of Healthcare Ethics* 16, no. 04 (2007): 415–19.

[43] Walker, Rebecca L. "The Unfinished Business of Respect for Autonomy: Persons, Relationships, and Nonhuman Animals." *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine* 45 (2020): 521–39.

[44] Beauchamp and Childress, *Principles of Biomedical Ethics (8th Edition),* 102.

call *hypocrisy*). None of these failures is accounted for by principlism's framework, as each of them can occur while being intentional, informed, and uncoerced.

These three examples all amount to failures of self-rule, arguably the central component of any theory of autonomy. Yet they can only be recognized as non-autonomous if we have a thicker account of identity or of personhood—precisely the issue skirted first by the Belmont Report and then by Beauchamp and Childress. We cannot truly know if a given choice is autonomous unless we understand what makes the choosing person autonomous. As Walker concludes, this "requires shining a light right into the center of our 'black box'"—the self.[45] It may simply be that "autonomous" and "non-autonomous" are descriptors of persons and not of decisions. Without a theory of the good or of human flourishing, principlism struggles with the problem of knowing how to properly balance, or "specify," competing principles in practice.[46] The notion that respect for autonomy consists in merely doing what competent patients want so long as it avoids negatively impacting someone else asks far too little ethically of health care providers and bioethics scholars.

Walker's arguments express the first-generation critique of autonomy in bioethics. While it has yet to significantly influence medical practice, it has undoubtedly impacted scholarship, as bioethicists have been testing out various alternative, thicker, and more useful conceptualizations, especially for the sake of analyzing interventions like DBS that directly modulate patients' capacities for desire, reflection, and choice. Drawing on the work of feminist philosophers, the notion of "relational autonomy" has recently attracted positive attention in bioethics literature.[47] It is the primary framework featured in the theoretical neuroethics discourse described above. This reframing of autonomy emerged as a response against mainstream bioethics' overly individualistic conceptions of autonomy—those that treat patients as independent, unencumbered rational

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[45] Walker, "Medical Ethics Needs…," 597.

[46] Beauchamp and Childress, *Principles of Biomedical Ethics (8th Edition),* 9.

[47] Beauchamp and Childress even suggest in their most recent edition of *Principles of Biomedical Ethics* that relational autonomy is compatible with principlism. This may be true, but it demands much more than is typically understood of autonomy in mainstream bioethics.

actors.[48] It is grounded in the social reality of human life, carefully attuned to the messiness of what shapes to our values, desires, and sense of self. The various accounts of relational autonomy differ, but they all emphasize the imbricated features of one's lived reality, including gender, race, ethnicity, disability, community, culture, socioeconomic status, politics, and so forth. To the extent that it is developed at all, one's capacity for independent reflection and choice emerges from this multifaceted milieu. Autonomy is much more than a competent individual "freely choosing." Jennifer Nedelsky, one of the foremost champions of this perspective, clarifies that the "relational approach does not stand in opposition to the importance of individuality"; rather, "it is an account of what makes it possible."[49] One's ability to make autonomous choices in the first place exists because of these myriad factors, influences, and supports. A given decision cannot be understood or evaluated without reference to the actual person deciding.

A relational framework, then, leads us to ask a wider range of context-sensitive questions when evaluating whether or not we are respecting a patient's autonomy. It makes clearer the ways in which autonomy admits of degrees and manifests differently in various settings; certain contexts lend themselves to patients' autonomy being more easily expressed and respected, while others are less favorable. As the relational framework makes clear, decision-making is inherently embodied and socially situated, achieved through relationships and in light of material circumstances. Respect for autonomy therefore should be understood as requiring that health care providers, researchers, and bioethicists take active steps to empower patients, to cultivate environments that are conducive to the expression and exercise of their autonomy. We cannot rest satisfied with merely providing more medical information or more meticulously following consent protocols. Nor can we conclude that autonomy was respected if a patient's wishes were enacted exactly as requested—it

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[48] Mackenzie, Catriona, and Natalie Stoljar. "Introduction: Autonomy Reconfigured." In *Relational Autonomy: Feminist Perspectives on Autonomy, Agency, and the Social Self*, edited by Catriona Mackenzie and Natalie Stoljar, 3–31. New York: Oxford University Press, 2000.

[49] Nedelsky, Jennifer. *Law's Relations: A Relational Theory of Self, Autonomy, and Law*. New York: Oxford University Press, 2011: 27.

is not a yes-or-no question. As Walker puts it, "*abiding* by" a choice is not the same as respecting a person's autonomy.[50] We must instead develop practices that promote robust relationships of care that allow us to learn about our patients' lives, values, and decision-making pressures. Health care professionals must learn who their patients really are and what really matters to them.

Ethical Phenomenology

As I began my research, this relational framework greatly informed my "experience-near" qualitative approach.[51] However, as I listened to patients like Susan describe their experience, I realized that we may be due for a second-generation critique of autonomy. Relational autonomy admirably calls us to attend to the many factors that shape us as people, but it still tends to frame matters in the mode of decision-theory. Evaluating philosophically interesting "dilemmas" as if patients' preferences are static, analyses often treat the exercise of autonomy at a discrete moment or cross-section in time rather than exploring how it evolves. In reality, autonomy is a capacity that develops diachronically. Over time, what we value changes in response to the demands and affordances of concrete situations. Ideally, this reflects a process of growth and maturation, as we learn to see the world in new ways. We will see throughout the following chapters that many DBS patients treat autonomy as a skill to cultivate through practice. In the operating room, with the activation of the device, some report feeling instantaneously liberated from their illness, but as the weeks, months, and years progress, they grapple with the ways in which autonomy is not merely freedom *from*, but also requires thinking about their freedom *to*—about where they are headed and what they aspire to. Their definitions of autonomy deepen alongside and as part of their recovery from depression. After the capacity for desire is rekindled, they must coordinate their higher-order

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[50] Walker, "Medical Ethics Needs…," 606.

[51] I explain my methodology in Chapter 2, but generally speaking, "experience-near" refers to anthropological methods such as participant observation and phenomenological interviews that attend to people's subjective experiences and the factors that influence them. See, for example, Wikan, Unni. "Toward an Experience-near Anthropology." *Cultural Anthropology* 6, no. 3 (1991): 285–305.

reflection and their embodied practices in the hopes of orienting their energies toward something good. They must make sure that they desire what they ought to. This is a dynamic, embodied, contingent, and interactive process, a journey combining epistemological and ethical development.

Hearing autonomy framed by DBS patients in this more complex, aspirational manner brought to mind resonances in the thought of two twentieth-century philosophers who also discussed the inextricably ethical and epistemological "pilgrimage" of learning to exercise one's autonomy: Iris Murdoch and Emmanuel Levinas.[52] Though not typically read together, these two thinkers both attended to the relationship between "freedom from" and "freedom to," and to the process of navigating the gap between who one is and who one ought to be. Each critiqued popular philosophical trends of their time that they saw as reductive in their conceptualizations of freedom—not unlike the current ascendant view of autonomy in bioethics. Accounting for not only the material, cultural, and social conditions of freedom—what we might now call "relational" factors—they also emphasized the phenomenological (and pre-phenomenological) changes to one's consciousness involved in the better or worse exercise of autonomy. In my follow-up interview with Susan, described above, certain of these Levinasian and Murdochian themes showed themselves to be relevant: the asymmetries that condition our encounters with other people; the power of others to draw us out of ourselves, to open our eyes, and to teach us if we are willing to listen; and the manner in which the presence of another calls us to account for our choices and inspires a "metaphysical desire" to respond well.[53] Indeed, such themes are present throughout every patient's accounts of recovery. Murdoch and Levinas recognized that the freedom to choose is not merely a power wielded in a moment, but a capacity that needs to be strengthened over time in particular ways—ways that help us better attune to the complex world around us and resist the

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[52] Murdoch explicitly discusses the moral life in terms of a Platonic pilgrimage in her famous essay "The Sovereignty of Good over Other Concepts." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 363–85. New York: Penguin, 1997.

[53] Levinas, Emmanuel. *Totality and Infinity: An Essay on Exteriority*. Pittsburgh: Duquesne University Press, 1969: 33.

temptations of ego-protective distortions. In short, autonomy depends on a degree of sensitivity or receptivity. It is not simply a matter of asserting one's will, satisfying one's preferences, or as Murdoch put it, the "chucking of one's weight around."[54]

We need a thicker understanding of autonomy, or a "deepening [of] concepts," to use another of Murdoch's phrases.[55] As an ethical phenomenology, this dissertation juxtaposes the firsthand accounts of DBS patients emerging from their treatment-resistant depression alongside the philosophical thought of Murdoch and Levinas (with a little bit of useful cognitive science terminology for good measure), in the pursuit of learning more about what autonomy really means. It is therefore the first attempt to rigorously and longitudinally explore DBS patients' perspectives on how the therapy for TRD affects their experience of autonomy. However, as contemporary philosopher of illness Havi Carel explains, such a phenomenological approach can do more than simply address the lack of empirical studies—it can serve as a "distinctly philosophical method," adding nuance, substance, and depth to our understanding of abstract concepts themselves.[56] My overarching goal is that, in addition to learning what autonomy means and requires for support in

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[54] Murdoch, "The Sovereignty of Good," 378.

[55] Murdoch, Iris. *Metaphysics as a Guide to Morals*. New York: Penguin Books, 1993: 324. It is worth quoting from this part of the book at length as it directly inspires my project:

> "What may seem to happen as a healing process, mysteriously in extreme situations, may be seen more clearly in ordinary situations where imagination appears as a restoration of freedom, cognition, the effortful ability to see what lies before one more clearly, more justly, to consider new possibilities, and to respond to good attachments and desires which have been in eclipse… Imagination suggests the searching, joining, light-seeking, semi-figurative nature of the mind's work, which prepares and forms the consciousness for action. In a context of reflection, one elaborates a distinction and defines a concept, so as to see further... It is a matter of deepening the concepts in question through a relation to each other… 'Becoming better' is a process involving an exercise and refinement of moral vocabulary and sensibility... At a more explicitly reflective level, in everyday discussion as well as in metaphysics, we deploy a complex densely textured network of values round an intuited centre of 'good.' We imagine hierarchies and concentric circles, we are forced by experience to make distinctions, to elaborate moral 'pictures' and a *moral vocabulary*... So we may talk and think, constantly examining and altering our sense of the order and interdependence of our values. The study of this interweaving is moral reflection, and at a theoretical level makes intelligible places for defining and understanding central concepts which may have become isolated and attenuated in our argumentative and emotional usage of them... Such persuasive shifting about among concepts, such metaphorical picturing of their mutual influence and function, is characteristic of metaphysics..." (324-327).

[56] Carel, Havi. *Phenomenology of Illness*. New York: Oxford University Press, 2016: 20. More on phenomenology as methodology in Chapter 2.

DBS patients’ unusual circumstances, we also come away with greater insight into the nature of autonomy more generally. There is a lot we can learn from these patients as they seek to undo depression’s cognitive distortions and behavioral patterns and overwrite their neural palimpsests with new, healthier ways of being in the world—as they aspire to autonomy.

Chapter 2: "Survival Mode" – Phenomenology and Methodology

> There was, internally, a sucking anguish and, externally, some kind of veil—a gauze veil between me and the world that limits my vision. I was separate from the world somehow, with my experiences on one side and then on the other side was everything outside myself. It hindered the ability of people and the world to get to me, for me to experience them. And inside there was also a desperate sense, an urgency of badness, of darkness. It was urgent in a sense that I had to pay attention to it… *I could attend to nothing else*.
>
> – Susan

The exercise of autonomy depends in large part on a functioning capacity to desire. Things have to matter to you. Bioethicists, as we discussed in Chapter 1, often frame autonomy in terms of the uncoerced satisfaction of desires or preferences. Yet, in depression, the ability to want is itself disrupted. As Susan makes clear in the excerpt above, something interferes with the relationship between the individual and the world, the landscape of potential objects of desire. While no two experiences of depression are the same, this theme of disrupted desire arose universally in conversations with patients undergoing DBS for treatment-resistant depression. Patients sometimes characterize it as a lack of motivation to pursue existing desires, other times as an inability to care about or value perceived objects (i.e. to generate desires). Occasionally they even describe a sort of perceptual blindness to objects or possibilities worth desiring. Most commonly, patients invoke two paired metaphors: an internal force pulling their attention inward and an external barrier preventing their outward connection with the wider world. Susan, we see above, describes a "sucking anguish" and "some kind of veil." Others relate the simultaneous presence of a "a black hole in my soul" and a "wall," or "giant dome." In every case, conative function, or the ability to perceive, feel, and pursue desires, is impaired, and attention is hyperfocused inward. As a result, patients all describe some variation of feeling imprisoned within themselves: "stuck in my head," "can't get my mind off my mind," and "isolated, trapped in my own head." One patient, Lance, conceptualizes his depressive experience as "the opposite of willingness" and "an inability to engage with the world—because your brain is not letting you enjoy anything."[1] This complex relationship between desire, perception, and action, so unsettled by depression, has significant implications for how we understand autonomy and conscious experience in general.

To explore these disruptions of autonomy and their subsequent repair over the course of DBS treatment, this project utilizes a mixed-methods approach that draws upon both first- and third-person methodologies. Psychiatric illness and recovery are shaped by myriad factors physiological, psychological, sociocultural, existential, and beyond. While it is impossible to fully account for all of these factors in a single project, we ought to at least avoid reducing our analysis to any one of them. This dissertation aims primarily to draw on "experience-near" methods, such as phenomenological interviews and ethnography, that focus on the firsthand accounts of DBS patients themselves. However, I will also put these accounts in conversation with the work of specific philosophers, primarily Iris Murdoch and Emmanuel Levinas, and engage with recent developments in cognitive science, including findings from the DBS clinical trials themselves. Writing at the confluence of several different disciplines, my hope is that they will shed mutual light on one another and on some of the processes that constrain and shape patients' conscious experiences.[2] While there are numerous cultural and economic forces that encourage a simplification of the categories of psychiatric illness—from the symptom checklists of diagnostic manuals to insurance reimbursement mechanisms to reductive tropes about "brain chemistry"—

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[1] Compare this also with the famous depiction from Andrew Solomon's *The Noonday Demon: An Atlas of Depression*: "The first thing that goes is happiness. You cannot gain pleasure from anything. That's famously the cardinal symptom of major depression. But soon other emotions follow happiness into oblivion… You lose the ability to trust anyone, to be touched, to grieve" (19). We will also examine the feeling, exemplified in Lance's statement, of being acted upon by one's brain or mind in Chapter 5.

[2] An important theme that we will address below and in future chapters is the complicated notion of first-person privilege or the position of authority that comes with being the trial subject conveying one's experience. Many of the important factors that shape this experience act beneath the level of conscious awareness (e.g. neurophysiological changes) or remain in some ways invisible to the patient. A common way that this presents itself in interviews is patients reporting that family members tend to notice behavioral signs of progress before the patients themselves do.

we must not ignore the multidimensional complexity of mental illness and health.[3] No single discipline or methodology can alone capture the experience of depression or of its absence.

In order to do justice to this complexity, psychiatrist-anthropologist Arthur Kleinman has issued a clarion call for "nothing short of original outside-the-box, interdisciplinary approaches."[4] The allied fields of cultural psychiatry, neuroanthropology, and anthropology of ethics represent admirable attempts to avoid "neuroreductionism" and keep first- and third-person methods in productive conversation. This dissertation aims to build on these foundations. Ultimately, it is styled as an "ethical phenomenology" of DBS patients' journeys out of depression.[5] Focused on their shifting sense of autonomy, we will see that the course of recovery is influenced by much more than patterns of electrical pulses. Questions of meaning, purpose, aspiration, and interpretation are fundamental to their care. This chapter on methodology will first survey a leading framework in cognitive science known as *predictive processing* as it pertains to major depressive disorder and consider implications regarding desire, perception, and action that are helpful for understanding DBS patients' experiences. Having sketched this brief background in pertinent neuroscience findings, I will then suggest ways in which phenomenological analysis of patients' experiences, with its emphasis on the central role of meaning and interpretation, can be philosophically instructive in dialogue with these findings. The chapter concludes with an overview of the research methods used in this project.

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[3] Parnas, Josef, and Shaun Gallagher. "Phenomenology and the Interpretation of Psychopathological Experience." In *Re-Visioning Psychiatry*, edited by Laurence J. Kirmayer, Robert Lemelson, and Constance A. Cummings, 65–80. Cambridge: Cambridge University Press, 2015. See also: Andreasen, N. C. "DSM and the Death of Phenomenology in America: An Example of Unintended Consequences." *Schizophrenia Bulletin* 33, no. 1 (2006): 108–12.

[4] Kleinman, Arthur. "Foreword." In *Re-Visioning Psychiatry*, edited by Laurence J. Kirmayer, Robert Lemelson, and Constance A. Cummings, xvii–xix. Cambridge: Cambridge University Press, 2015: xix.

[5] While I will elaborate in greater detail what I mean by this below, I will briefly state here that "ethical phenomenology" as I am using it refers to the way in which conscious experience is inherently structured with reference to value or the good. Emmanuel Levinas is perhaps the most noteworthy ethical phenomenologist, with his account of the necessary ethical conditions for conscious experience, but I will argue that the label also applies in useful ways to the work of Iris Murdoch and her theories of attention and "unselfing."

Predictive Processing and Psychiatric Illness

Perception joins us to the world. Intuitively, it makes sense to treat perception as a passive experience, in which external stimuli impinge directly upon our passive sensory organs and we synthesize the collected data. Such "naïve realism" is most people's default stance.[6] However, findings from cognitive science have revealed the true story to be much more complex—running counter to our intuition in epistemologically and, as I will show, ethically significant ways.[7] To illustrate the significance of these findings, neuroscientist Anil Seth invokes Plato's Allegory of the Cave, a narrative that will prove useful throughout this dissertation. Our conscious perceptions, he says, are like the shadows on the wall of the cave that we assume are simply real but that are in fact "indirect reflections of hidden causes that we can never directly encounter."[8] While it might feel like we perceive an objective reality outside of us, our perception is thoroughly mediated by the brain's preexisting frameworks. Without such filtering, the amount of sensory data potentially interpretable would be overwhelming, as Immanuel Kant recognized in the 18th century.[9]

In our own century, scientists are discovering that the brain's filtering mechanism operates through a process of prediction. "Predictive processing" refers to a family of theories built upon the notion that our brains are constantly generating and updating hypotheses about the most likely causes of sensory input. Emerging evidence suggests that our brains play a surprisingly active role in constructing our conscious experiences.[10] To illustrate: you are drinking your morning coffee and

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[6] Ross, Lee, and Andrew Ward. "Naive Realism in Everyday Life: Implications for Social Conflict and Misunderstanding." In *Values and Knowledge*, edited by T Brown, E.S. Reed, and E. Turiel, 103–35. Hillsdale: Erlbaum, 1996.

[7] It is important to note that the survey that follows is a vast simplification of an extremely mathematically complex family of theories. I hope to have struck the balance between doing justice to the concepts and explaining them in an accessible and practically useful way.

[8] Seth, Anil K. *Being You: A New Science of Consciousness*. Dutton, 2021: 85.

[9] On Kant's philosophy of perception, see: Gomes, Anil. "Kant on Perception: Naïve Realism, Non-Conceptualism, and the B-Deduction." *The Philosophical Quarterly* 64, no. 254 (2014): 1–19.

[10] This evidence even includes findings about basic neuroanatomy—the visual cortex receives input from the rest of the brain that vastly exceeds the input from the retina alone. Additionally, the input from the frontal regions of the brain to the visual cortex occur very early in visual processing. See Fenske, Mark J., Elissa Aminoff, Nurit

looking out of your window when a hovering kestrel catches your eye.[11] Your brain draws on prior concepts, categories, and experiences to probabilistically shape what you see. If you fell asleep the previous night listening to news reports of unidentified aerial phenomena, you might sleepily assume otherworldly explanations of the object floating in front of you. If, however, a moment's closer look reveals the surface of the object to be feathered, with a face returning your gaze, these additional signals should prompt you to update your interpretation, functioning as what are known as "prediction errors," or ways in which the sensory input fails to match up with expectations. The caffeine from your coffee kicks in. Ah, yes, now you see it. The bird you perceive now reflects this adjusted combination of prior expectations and incoming sensory signals, so that your prediction best conforms to the causes of those signals. This constant iterative updating in response to the encountered world is called "prediction error minimization," the attempt to best grasp reality as it exists.[12] As Seth puts it, we "never experience sensory signals themselves, we only ever experience interpretations of them…a top-down, inside-out neuronal fantasy that is reined in by reality."[13] He has popularized the phrase "controlled hallucination" to encapsulate this revolutionary new paradigm.[14]

Neuroscientist-psychologist Lisa Feldman Barrett has recently shown how predictive processing applies not only to our interpretation of the world beyond us but also to the world within us. Our emotions are themselves controlled hallucinations of a sort, which she describes as "your brain's creation of what your bodily sensations mean, in relation to what is going on around

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Gronau, and Moshe Bar. "Top-down Facilitation of Visual Object Recognition: Object-Based and Context-Based Contributions." *Progress in Brain Research* 155 (2006): 3–21.

[11] Readers familiar with Iris Murdoch's work will immediately recognize the example.

[12] The word "grasp" is used intentionally here because predictive processing applies not only to sense perception but crucially to action in general—prediction error minimization is how we function in the world. See also Merleau-Ponty's notion of "*la prise*" or "grip" in Merleau-Ponty, Maurice. *Phenomenology of Perception*. 1945. Reprint, London: Routledge, 2002: 346.

[13] Seth, *Being You*, 88.

[14] Seth, Being You, 87.

you."[15] Based on research from her lab and others, she emphasizes that emotions are not simple reactions to the world. Like perception, emotions are constructions based on prior concepts and experiences, representing the mind's efforts to anticipate and make sense of incoming sensory data—in this case, data primarily from within the body, also known as interoception. "*Emotions are meaning*," she suggests, in that they "explain your interoceptive changes and corresponding affective feelings."[16] Of particular note for our purposes is the profound effect that emotions have on how we attune to the world around us. According to Barrett, they are "more influential to perception, and how you act, than the outside world is."[17] Our affective assessment of our internal milieu is a key element of the filtering process that shapes what we see and how we experience it.

Barrett provides an instructive example: suppose you happen upon a snake in the woods; your experience of fear constitutes an interpretation of what your bodily responses mean:

> Even before I was aware of the snake, my brain was busy constructing an instance of fear… I did not see a snake and categorize it. I did not feel the urge to run and categorize it. I did not feel my heart pounding and categorize it. I categorized sensations in order to see the snake, to feel my heart pounding, and to run. [18]

The ultimate goal implied in the emotional experience, to escape the potential threat of the snake, is central to Barrett's account. Emotion as a prediction about one's internal state of affairs—the effort to minimize interoceptive prediction error—is aimed at homeostasis, or regulation of the body. She

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[15] Feldman Barrett, Lisa. *How Emotions Are Made: The Secret Life of the Brain*. New York: Houghton Mifflin Harcourt, 2018: 30.

[16] Barrett, *How Emotions Are Made*, 126.

[17] Barrett, *How Emotions Are Made*, 79. See also Barrett and Bar's "Affective Predictions" hypothesis, showing that perception is colored with affective value, not as an added processing step, but from the very start: Feldman Barrett, Lisa, and Moshe Bar. "See It with Feeling: Affective Predictions during Object Perception." *Philosophical Transactions of the Royal Society B: Biological Sciences* 364, no. 1521 (May 12, 2009): 1325–34.

[18] Barrett, *How Emotions Are Made*, 109-110.

refers to this as “body budgeting.”[19] Interoception tracks physiological parameters, from heart rate to glucose availability to tissue damage and beyond, so that we can maintain them within ranges conducive to survival and flourishing. Affective feelings, then, such as “pleasure and displeasure” or “calmness and agitation,” are “simple summaries of your budgetary state.”[20] They prompt us to examine their cause and, ideally, correct for body budget imbalances when necessary. Feeling the emotion of fear helps protect us from sudden snake encounters now and in the future.

Perhaps predictably, the mechanism of predictive processing has great relevance for understanding psychiatric illness, including experiences of depression. To use Barrett’s terminology, depression involves a body budget out of balance. In fact, she points to the work done on treatment-resistant depression in Dr. Mayberg’s DBS lab to corroborate her account. Mayberg’s protocol aims to regulate a region of the brain known as the Subcallosal Cingulate Cortex (SCC), a hub linking regions in the interoceptive network with the limbic system and the prefrontal cortex.[21] The DBS device normalizes activity in Brodmann Area 25 (BA25), a major intersection of three axon bundles in the SCC, which is hyperactive in depression.[22] Barrett’s interpretation of the data is that the brain in depression is incorrectly predicting metabolic needs, continually acting “as if you were fighting off an infection or healing from a wound when none exists, as in chronic stress or pain.”[23]

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[19] Barrett, *How Emotions Are Made*, 67.

[20] Barrett, *How Emotions Are Made*, 73

[21] Choi, Ki Sueng, Patricio Riva-Posse, Robert E. Gross, and Helen S. Mayberg. “Mapping the ‘Depression Switch’ during Intraoperative Testing of Subcallosal Cingulate Deep Brain Stimulation.” *JAMA Neurology* 72, no. 11 (November 1, 2015): 1252. See also: Riva-Posse, Patricio, Ki Sueng Choi, Paul E. Holtzheimer, Cameron C. McIntyre, Robert E. Gross, Ashutosh Chaturvedi, Andrea L. Crowell, Steven J. Garlow, Justin K. Rajendra, and Helen S. Mayberg. “Defining Critical White Matter Pathways Mediating Successful Subcallosal Cingulate Deep Brain Stimulation for Treatment-Resistant Depression.” *Biological Psychiatry* 76, no. 12 (December 2014): 963–69.

[22] Mayberg, Helen S. “Targeted Electrode-Based Modulation of Neural Circuits for Depression.” *Journal of Clinical Investigation* 119, no. 4 (2009): 717–25. See also: Price, Joseph L, and Wayne C Drevets. “Neurocircuitry of Mood Disorders.” *Neuropsychopharmacology* 35, no. 1 (August 19, 2009): 192–216.

[23] Barrett, *How Emotions Are Made*, 210. Indeed, studies of depressed patients show hyperactivity of the HPA Axis (the body’s stress-related endocrine response) and an increase in proinflammatory immune activity. Similarly, inflammation that is induced experimentally causes increased activity in the SCC and symptoms of depression, including negative affect and fatigue. See Harrison, Neil A., Lena Brydon, Cicely Walker, Marcus A. Gray, Andrew Steptoe, and Hugo D. Critchley. “Inflammation Causes Mood Changes through Alterations in Subgenual Cingulate Activity and Mesolimbic Connectivity.” *Biological Psychiatry* 66, no. 5 (September 2009): 407–14.

Indeed, as several of the DBS patients explained, severe depression is “like being stuck in survival mode,” with their bodies and minds entirely trained on “staying alive,” even against their higher-order desires. These patients don’t just feel sad; they feel sick. Depression is an illness that affects the whole person, resulting in not only a negative affect but also experiences of fatigue, heaviness, and pain. Then there are the sleep problems, systemic inflammation, and endocrine imbalances that all contribute to subsequent metabolic illnesses and increased risk for diabetes, heart disease, and cancer.[24] Contrary to the traditional assumption that negative thoughts cause negative feelings, Barrett reverses the direction of causality.[25]

Mayberg herself has proposed, with Paul Holtzheimer, that “depression is better defined as the tendency to enter into, and inability to disengage from, a negative mood state rather than the mood state per se.”[26] The depressive *state* may be an “aberrant neural rhythm” relative to its context—like an elevated heart rate when resting—but the depressive *disorder* is the brain’s tendency to get stuck and “stay in that rhythm inappropriately.”[27] Just as an elevated heart rate would serve you well in a situation that demanded fight or flight, a response focusing one’s attention on the self and not on outward distractions can be a useful survival mechanism in specific contexts as well.[28] Being stuck in survival mode, however, is a problem of regulation relative to

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[24] Mathis, Diane, and Steven E. Shoelson. “Immunometabolism: An Emerging Frontier.” *Nature Reviews Immunology* 11, no. 2 (January 14, 2011): 81–83.

[25] Predictive processing theories contrast with traditional “cognitive” models of depression such as that of Beck et al. See Beck, Aaron T., A. John Rush, Brian F. Shaw, and Gary Emery. *Cognitive Therapy of Depression.* New York: Guilford Press, 1979.

[26] Holtzheimer and Mayberg, “Stuck in a Rut,” 1.

[27] Holtzheimer and Mayberg, “Stuck in a Rut,” 8.

[28] Further characterizing this interoceptive network dysfunction, Georg Northoff, psychiatrist and neuroscientist, explains that ruminative tendencies in depression reflect changes in Default Mode Network (DMN) dynamics. Specifically, they correspond with “an imbalance in activity between intero- and exteroceptive stimulus processing, including their respective interactions with the resting-state activity level [of the DMN].” In short, patients are stuck interpreting their experience inwardly through the lens of self-preservation and outwardly in terms of potential threats to their bodily integrity. See Northoff, Georg. “How the Self Is Altered in Psychiatric Disorders.” In *Re-Visioning Psychiatry*, edited by Laurence J. Kirmayer, Robert Lemelson, and Constance A. Cummings, 81–116. Cambridge: Cambridge University Press, 2015: 102. See also Cha, Jungho, Ki Sueng Choi, Juna Khang, Martijn Figee, Patricio Riva Posse, Brian Kopell, and Helen Mayberg. “Longitudinal Changes in Default Mode Network with Subcallosal Cingulate Deep Brain Stimulation for Treatment-Resistant Depression.” *Neuromodulation: Technology at the Neural Interface* 25, no. 5 (July 2022).

reality—an inability of the brain to correctly update its interoceptive predictions in light of the body's actual needs.[29] It is ultimately a failure of prediction error minimization. In conversation, Mayberg shared the metaphor of a well-worn path in a garden: if you continue to walk a certain pathway over time, you are increasingly likely to use it again in the future.[30] The well-worn neural pathway in treatment-resistant depression is a supercharged body-budgeting network, which manifests as the all-consuming inward focus, inability to attend outwardly, and attendant suffering so vividly described by DBS patients.[31] With this extremely biased cognition, their controlled hallucination is no longer being appropriately controlled, and their exercise of autonomy is severely compromised.

Meaning Matters

Fundamental to this dissertation is the claim that DBS treatment is not a simple mechanistic phenomenon. As patients frequently report, the brain is "not a light switch"—a recurring theme that will arise again in future chapters.[32] This is because central to the predictive processing model is a role for meaning and interpretation. The brain draws on past experiences and one's available

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[29] Kube et al. describe the predictive brain in depression as overweighting negative prediction error that confirms catastrophizing predictions and underweighting positive prediction error that would disconfirm their negative predictions. See Kube, Tobias, Rainer Schwarting, Liron Rozenkrantz, Julia Anna Glombiewski, and Winfried Rief. "Distorted Cognitive Processes in Major Depression: A Predictive Processing Perspective." *Biological Psychiatry* 87 (2020): 388–98.

[30] The same metaphor is used by Francisco Varela, Evan Thompson, and Eleanor Rosch to explain the "enactive approach" to cognition in their groundbreaking book *The Embodied Mind: Cognitive Science and Human Experience* (Revised Edition. 1991. Reprint, Cambridge: MIT Press, 2016: 205).

[31] Badcock et al. describe this positive feedback loop as leading to a distorted form of confirmation bias, wherein a depressed person attends increasingly to sensory data that confirm negative expectations. See Badcock, Paul B., Christopher G. Davey, Sarah Whittle, Nicholas B. Allen, and Karl J. Friston. "The Depressed Brain: An Evolutionary Systems Theory." *Trends in Cognitive Sciences* 21, no. 3 (March 2017): 182–94.

[32] One patient said the exact same thing in an ethnography of DBS treatment for OCD. Hence, the title of the article: "'Deep Brain Stimulation is No ON/OFF Switch': An Ethnography of Clinical Expertise in Psychiatric Practice" by Maarten van Westen, Erik Rietveld, Annemarie van Hout, and Damiaan Denys (*Phenomenology and the Cognitive Sciences* 22 (2023): 129–48). This article primarily focused on the role of expert clinicians in DBS treatment.

lexicon of concepts and categories in the construction of present experience.[33] Through experience, learning, and habituation, that lexicon is augmented gradually. In the same way that depression reflects a misinterpretation of bodily signals that is repeatedly reinforced over time into biased cognition, DBS treatment requires the intentional formation over time of healthier thought patterns, or "generative models," that better map onto reality. The DBS "reboot" seems to engender this capacity on a very short timescale—some patients even report profound phenomenological changes in the operating room—but it requires steady retraining of the brain over time to attend to and interpret the world differently. As I will illustrate primarily in Chapters 5 and 6, this cognitive retraining is a long-term process that engages mind and body together, with patients utilizing co-constructed narratives and embodied practices that mutually reinforce one another (or fail to).[34]

In terms of methodology, this extended project of self-cultivation speaks to the importance of complementing third-person findings from neuroscience with investigations into first-person experiences. It is not only in the abstract that thought pattern changes occur: the synaptic wiring of the brain exhibits plasticity, meaning that participation in different social contexts and activities results in significant enduring changes in brain structure and function.[35] Subjective experiences reshape and reinforce objective neural connections, and those connections in turn shape and constrain subjective experiences. This is often expressed with the maxim, "what fires together wires together."[36] A growing body of research makes clear that the brain is not a static object passively processing information. Rather, it adapts dynamically in relation to practices and

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[33] This includes even those categories that do not have a word for them—the process of prediction and interpretation largely takes place "below" the level of reflective awareness and propositional statements.

[34] "The difficulty for naturalists and empiricists is that meaning appears to be a metaphysical manifestation simultaneously taking place in brains and in symbols and thus meaning appears to belong to both the mental and physical worlds" - Jensen, Jeppe Sinding. "Cognition and Meaning." In *Origins of Religion, Cognition, and Culture*, edited by Armin W. Geertz, 241–67. Routledge, 2013: 251.

[35] Kirmayer, Laurence J., Robert Lemelson, and Constance A. Cummings. "Introduction: Psychiatry at a Crossroads." In *Re-Visioning Psychiatry*, edited by Laurence J. Kirmayer, Robert Lemelson, and Constance A. Cummings, 1–38. Cambridge: Cambridge University Press, 2015.

[36] This is a catchy way to summarize the theory of "Hebbian learning," pioneered by neuropsychologist Donald Hebb.

narratives that impact how we pay attention and how we interpret our lived experience, with the goal of rendering our environment more predictable and navigable.

Plasticity and this process of synaptic weighting entail that the brain is an "encultured" object, in the words of neuroanthropologists Greg Downey and Daniel Lende. Furthermore, the process of enculturation is less like learning new propositional facts and more like cultivating a skill, remodeling both body and mind.[37] To cite the most famous example, researchers have found that London taxi drivers develop larger hippocampi, a brain region central to spatial representation.[38] With study and practice—integrating explicit facts and rules along with implicit norms, procedural skills, and dispositions—the taxi drivers train themselves to more expertly navigate the city, with their neuroanatomy reflecting that training and consequently shaping their experience of the world. The relationship of influence between neurobiology and culturally-mediated experience is bidirectional. This dynamic gives rise to cross-cultural differences in neural activity and architecture. Examples have been discovered in an ever-expanding range of cases, from susceptibility to optical illusions to music perception to self-construal and recognition.[39] People from different cultures and backgrounds literally perceive the world differently. The same is true of people with psychiatric illness.[40] Consequently, to best understand the ways in which DBS patients come to "reorganize their brains," as one interviewee put it, we need to attend closely to their lived

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[37] Lende, Daniel H., and Greg Downey, eds. *The Encultured Brain: An Introduction to Neuroanthropology*. MIT Press, 2012.

[38] Maguire, E. A., D. G. Gadian, I. S. Johnsrude, C. D. Good, J. Ashburner, R. S. J. Frackowiak, and C. D. Frith. "Navigation-Related Structural Change in the Hippocampi of Taxi Drivers." *Proceedings of the National Academy of Sciences* 97, no. 8 (March 14, 2000): 4398–4403.

[39] For an extended list of examples, see Downey, Greg, and Daniel H. Lende. "Neuroanthropology and the Encultured Brain." In *The Encultured Brain: An Introduction to Neuroanthropology*, edited by Daniel H. Lende and Greg Downey, 23–65. MIT Press, 2012: 33.

[40] Ratcliffe, Matthew. *Feelings of Being: Phenomenology, Psychiatry, and the Sense of Reality*. New York: Oxford University Press, 2008. Regarding depression specifically, see Ratcliffe, Matthew. *Experiences of Depression: A Study in Phenomenology*. New York: Oxford University Press, 2015.

experience, keeping in frame the biological, psychological, social, and even existential factors that impact their recovery process.[41]

The methodological and theoretical framework best suited to this goal is known as phenomenology. Phenomenology generally refers to an area of philosophy devoted to the study of subjective experience—the way certain phenomena "appear" to us firsthand—in hopes of discovering something about the underlying structures of consciousness itself.[42] More than a field of study, it has come to refer to a practice as well, indeed a body of research methodologies, involving the in-depth examination of how subjective experiences are imbued with meaning and sense.[43] In the early 20th century, Edmund Husserl, the "father of phenomenology," promoted a "transcendental" approach that aimed to systematically strip away contingencies and, through reflection, discover the essential elements of subjective experience. The most famous example of such an essential element is "intentionality," or the fact that consciousness is always consciousness *of* some meaningful object.[44] He referred to this reflective *a priori* strategy as the "phenomenological reduction."[45] More recently, scholars in the philosophy of mind tradition have incorporated a more *a posteriori* approach to phenomenology that also seeks to integrate empirical findings from cognitive science and naturalistic accounts of mental phenomena like perception, emotion, and judgment.[46] While there are ongoing debates about the extent to which phenomenology and naturalism can be harmonized, all branches of the tradition share an emphasis

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[41] It is interesting to note the multiple meanings of the word "reorganize" that might apply here. DBS helps patients not only reorganize their mental models but also return their brain to functionality as an organ.

[42] For an excellent introduction, see Moran, Dermot. *Introduction to Phenomenology*. New York: Routledge, 2000.

[43] Moustakas, Clark E. *Phenomenological Research Methods*. Thousand Oaks: SAGE Publications, 1994.

[44] Husserl, Edmund. *Logical Investigations*. Edited by Dermot Moran. Translated by J. N. Findlay. Vol. 1. New York: Routledge, 2001: 169.

[45] Husserl, Edmund. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*. 1913. Reprint, Springer, 1983.

[46] Drummond, John, and Mark Timmons. "Moral Phenomenology." Stanford Encyclopedia of Philosophy, 2021. https://plato.stanford.edu/entries/moral-phenomenology/. See also: Gallagher, Shaun. "Rethinking Nature: Phenomenology and a Non-Reductionist Cognitive Science." *Australasian Philosophical Review* 2, no. 2 (April 3, 2018): 125–37.

on careful attention to basic mental functions that we typically take for granted and the ways in which they are made possible by the interaction between the self and the world.

The distinctive emphasis on subjectivity, phenomenology's great strength, allows scholars to complement more scientific accounts of mental phenomena like psychiatric conditions and thereby attain a more complete understanding than biology alone can provide.[47] As philosopher Havi Carel suggests, phenomenology is able to effectively combine "first- and third-person points of view, the subjective and the objective, the personal and the philosophical."[48] In fact, over the last few decades an extensive genealogy of phenomenological anthropologists has emerged, explicating the cultural and social contexts in which conscious phenomena occur.[49] And while phenomenology overlaps considerably with other experience-near research methods, like ethnography, Carel argues, in her *Phenomenology of Illness*, that "it is not merely an anthropological method… [it] is a distinctly *philosophical* method," as it often involves investigation of "the conditions of possibility for having a particular experience."[50] It does not simply offer an additional "qualitative methods" angle on the empirical causes of a given phenomenon, invaluable though that may be. Never fully leaving behind its transcendental impulses, phenomenology also explores conscious phenomena in ways that are philosophically revealing. Illness experiences, for instance, can serve as a "philosophical tool" to open our eyes to truths otherwise unnoticed.[51] Per Carel, phenomenological concepts and frameworks can help us understand illness experiences, while attending closely to these experiences can in turn deepen our understanding of key philosophical issues.[52] I will

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[47] Svenaeus, Fredrik. "A Defense of the Phenomenological Account of Health and Illness." *The Journal of Medicine and Philosophy: A Forum for Bioethics and Philosophy of Medicine* 44, no. 4 (2019): 459–78.

[48] Carel, Havi. *Illness: The Cry of the Flesh*. New York: Routledge, 2014: 15.

[49] Desjarlais, Robert, and C. Jason Throop. "Phenomenological Approaches in Anthropology." *Annual Review of Anthropology* 40 (2011): 87–102.

[50] Carel, *Phenomenology of Illness*, 20-21.

[51] Carel, *Phenomenology of Illness*, 5.

[52] In his *Experiences of Depression*, Ratcliffe makes this same point, explaining that phenomenological study of depression experiences "can feed into philosophical debates concerning a wide range of topics, including the structure of intersubjectivity, the nature of empathy, our sense of free will, temporal experience, the ingredients of emotion and feeling, what it is to believe something, and what it is to hope" (1). I think it is worth emphasizing

demonstrate in the coming chapters that this approach is especially valuable in light of the underexplored role of interpretation in predictive processing, which seems to provide a potential mechanism for the enculturation process described above and a useful angle with which to develop our understanding of autonomy.

Consider the perennial question of the mind-body relationship. Phenomenologists, beginning with Husserl himself, have taken up this theme, describing the ways in which the body makes perception, cognition, and action possible. Maurice Merleau-Ponty, the preeminent phenomenologist of the body, suggested that embodiment is foundational to subjectivity itself: "Consciousness is in the first place not a matter of 'I think that,' but of 'I can,'" such that "to move one's body is to aim at things through it; it is to allow oneself to respond to their call, which is made upon it independently of any representation."[53] Reflective, propositional thought is a relatively rare subtype of cognition; most sense-making is actually pre-reflective, action-oriented, and embodied.

Contemporary philosophers of mind, especially in the "enactivist" school of thought, have substantially developed this idea with reference to what are called the 4 Es: *embodied*, *embedded*, *extended*, and *enacted* cognition.[54] *Embodied* cognition includes not only the way that cognition is enabled by the body, but also the fact that our vocabulary of concepts emerges from bodily experiences and sensorimotor metaphors.[55] *Embedded* cognition refers to the fact that thinking and acting are always situated in a specific context, one that has particular features that invite interaction and response. This fits neatly with the notion of *extended* cognition, which emphasizes the ways we actively utilize those environmental features to facilitate cognition; paradigmatic examples include shopping lists, calculators, and the rearranging of Scrabble tiles to think through

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that scholars of anthropology frequently do this as well from the perspective of their discipline, making use of philosophy as a conversation partner. See, for example, Michael D. Jackson's *Lifeworlds: Essays in Existential Anthropology*. Chicago: University of Chicago Press, 2012.

[53] Merleau-Ponty, *Phenomenology of Perception*, 159-161.

[54] Newen, Albert, Leon De Bruin, and Shaun Gallagher. *The Oxford Handbook of 4E Cognition*. New York: Oxford University Press, 2018.

[55] Lakoff, George, and Mark Johnson. *Metaphors We Live By*. Chicago: University of Chicago Press, 1980.

possible words to play next.[56] More radical interpretations of extended cognition go so far as suggest that minds exist not in brains or bodies but in the dynamic systems that comprise the brain, body, and environment.

The fourth "E," *enacted* cognition, drawing upon elements of the previous three, has attracted the most philosophical analysis. Enactivists emphasize the action-oriented basis of cognition—that perception and thought are fundamentally about controlling action.[57] Central to their model is the notion of *affordances*, those features of the environment that solicit attention and action. Psychologist James Gibson famously coined this term to describe the way that subjects and environments dynamically couple or relate based on their respective features.[58] Enactivist philosopher Shaun Gallagher offers the following example:

> If I have a certain amount of strength and have honed a particular set of skills by attuning my body schema to a specific set of sensory-motor contingencies, the cliff in front of me affords climbing. That affordance, as an immediate solicitation, disappears, however, if I am bound to a wheelchair.[59]

Whether one pays attention, what one perceives, and how the object of perception is interpreted—in short, the experiences of possibilities—all depend on aspects of the body and the ways in which they do or do not correspond with aspects of the environment.[60] The meaning of an object or concept, including whether it passes through our filtered perception at all, is defined by its use or

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[56] Clark, Andy, and David Chalmers. "The Extended Mind." *Analysis* 58, no. 1 (1998): 10.

[57] Gallagher, Shaun. *Enactivist Interventions: Rethinking the Mind*. New York: Oxford University Press, 2017.

[58] Gibson, James J. *The Ecological Approach to Visual Perception*. 1979. Reprint, New York: Psychology Press, 2015.

[59] Gallagher, Shaun. "A Well-Trodden Path: From Phenomenology to Enactivism." *Filosofisk Supplement*, 2018.

[60] Gibson himself insisted that affordances do not change from person to person (they are present or not) but whether or not these affordances are perceived as salient—whether or not they solicit a response—does change by person.

its implications for action.[61] Just as the fearful processing of a snake encounter emerges from a bodily interaction aimed at survival and homeostasis, perception of the world more generally is motivated by needs and concerns.[62] The landscape of affordances and the extent to which it solicits one's response shift depending on whether one is hungry, tired, excited, or clinically depressed.[63] Enactivists, elaborating upon the work of phenomenologists like Merleau-Ponty, suggest that it is not just a mind that perceives, thinks, desires, or chooses, but an embodied person dynamically interacting with the world and with other people in the process of sense-making.[64] One of the hallmarks of enactivism and phenomenology alike is the departure from classical dualisms, making them uniquely useful paradigms for engaging the blurry boundaries between subjectivity and objectivity, mind and matter.

While the concept of affordances has been thoroughly mined in the abstract, enactivists admit that the concrete ways in which fields of affordances solicit response from individuals with particular concerns and (dis)abilities remains an "urgent open research question."[65] Similarly, phenomenologists Matthew Ratcliffe and Matthew Broome suggest that discussions of affordances "are blunt tools that only get us so far."[66] They argue that we need to be much more descriptive in our accounts about precisely how we relate to certain affordances. Because mental phenomena are embodied, embedded, extended, and enacted as described, cultural psychiatrist Laurence Kirmayer

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[61] Ratcliffe emphasizes that meaning need not be restricted to practical utility. For instance, something can be perceived as threatening—it has implications for action but not merely practical use. See Ratcliffe, Matthew. "Depression and the Phenomenology of Free Will." In *The Oxford Handbook of Philosophy and Psychiatry*, edited by K. W. M. Fulford, Martin Davies, Richard Gipps, George Graham, John Z. Sadler, Giovanni Stanghellini, and Tim Thornton. New York: Oxford University Press, 2013: 578.

[62] These concerns need not be basic ones aimed merely at bodily integrity. As we will see, ethical and existential concerns can be equally motivating, if not more so.

[63] De Haan, Sanneke, Erik Rietveld, Martin Stokhof, and Damiaan Denys. "The Phenomenology of Deep Brain Stimulation-Induced Changes in OCD: An Enactive Affordance-Based Model." *Frontiers in Human Neuroscience* 7 (2013).

[64] De Jesus, Paulo. "Thinking through Enactive Agency: Sense-Making, Bio-Semiosis and the Ontologies of Organismic Worlds." *Phenomenology and the Cognitive Sciences* 17, no. 5 (2018): 861–87.

[65] Rietveld, Erik, and Julian Kiverstein. "A Rich Landscape of Affordances." *Ecological Psychology* 26, no. 4 (2014): 340.

[66] Ratcliffe, Matthew. "Beyond 'Salience' and 'Affordance': Understanding Anomalous Experiences of Significant Possibilities." In *Salience: A Philosophical Inquiry*, edited by Sophie Archer. London: Routledge, 2022: 53.

calls for methods of analysis that account for this more expansive "ecology of mind."[67] Psychiatric illness, for instance, involves problems that are "not just in the brain, but in the loops [of interaction] that mutually constitute self and other, person, and environment." [68] Specific thought patterns are precipitated, facilitated, amplified, and reinforced in response to affordances. Phenomenology encourages us to attend to these responses in everyday life, to how they shape the experience of the suffering subject, and to what they might also mean for philosophy. Such an experience-near methodology, Downey and Lende argue, "offers concrete evidence of how social and cultural dimensions of the environment might affect cognitive function, and illustrates the range of neuroplasticity in developmental outcomes well beyond what most experimental protocols consider."[69] In this study, we will see that phenomenology is particularly well-suited to examine those affordances—including metaphors, concepts, narratives, practices, and interactions—that conduce to or obstruct DBS patients' course of recovery. Not only are these findings therapeutically useful, they also provide a greater philosophical depth to our understanding of autonomy. We may also find that they shed light on certain assumptions in theories of predictive processing, which would benefit from a less individualistic and less mechanistic account of the factors that shape conscious experience.

Phenomenology of "Survival Mode"

In order to appreciate the experience of recovery from depression, we must first briefly survey the current literature on the phenomenology of depression itself. In conversation with the rapidly growing field known as the phenomenology of illness, scholars such as Matthew Ratcliffe and Thomas Fuchs have contributed excellent, nuanced analyses of psychiatric conditions including

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[67] Kirmayer, Laurence J. "Re-Visioning Psychiatry: Toward and Ecology of Mind in Health and Illness." In *Re-Visioning Psychiatry*, edited by Laurence J. Kirmayer, Robert Lemelson, and Constance A. Cummings. Cambridge: Cambridge University Press, 2015: 639.

[68] Kirmayer, "Re-Visioning Psychiatry," 639.

[69] Downey and Lende, "Neuroanthropology and the Encultured Brain," 49.

depression. Each of them provides additional insightful perspectives on the experience of what we have labeled "survival mode," in which depressed patients' attention is focused inward to the exclusion of almost all else. Fuchs, a psychiatrist and philosopher, has argued that this biased cognition results in (and is further reinforced by) a temporal desynchronization of the patient and their environment, going so far as to suggest that "disturbances of temporal experience may indeed be considered the foundational disturbances of affective disorders."[70] He builds upon the work of early phenomenologist and neurologist Erwin Straus, who characterized the temporal experience of depressed patients as having their "ego time" stuck while "world time" passes them by. Isolated under their bell jar, they lose the sense of a shared world with others. Fuchs describes this decoupling as "existential" defense mechanisms gone awry, as they turn attention inward to resist environmental changes that are interpreted as threatening. Dynamic bodily functions, from appetite to libido to gait, slow down and stagnate. Increasingly, patients experience a reification of self and of time: "The patient can no longer easily transcend the body's boundaries—which is what we implicitly do when desiring things, reaching for them, walking toward our goals, thus anticipating the immediate future."[71] They are no longer receptive to being affected or drawn out by that which is other, whether objects, events, or people. The world of affordances shrinks and becomes distant, and the sense of future possibilities fades. Hopelessness finally colors all predictions, reinscribing and confirming patients' feelings of reification and alienation in a vicious cycle.[72]

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[70] Fuchs, Thomas. "The Life-World of Persons with Mood Disorders." In *The Oxford Handbook of Phenomenological Psychopathology*, edited by Giovanni Stanghellini, Matthew R Broome, Anthony Vincent Fernandez, Andrea Raballo, Paolo Fusar-Poli, and René Rosfort. Oxford: Oxford University Press, 2018: 617.

[71] Fuchs, "The Life-World of Persons with Mood Disorders," 621.

[72] The tendency towards rumination, one of the defining symptoms of severe depression, is a characteristic example of what "survival mode" is like phenomenologically. This predisposition to radically narrow one's focus and overanalyze one's experience represents a central manifestation of an overactive body-budgeting network and a biased predictive processing mechanism. DBS patients described a hyperawareness of the steps involved in everyday activities and bodily processes. One patient said of taking a shower when depressed: "It takes too much energy. The thought of getting up, having to run the water, get a washcloth, get a towel. It just all sounds too impossible—sounds like too many steps." Another described brushing her teeth, suggesting that "to lift my hand

Matthew Ratcliffe elaborates in great detail upon this phenomenology of diminished possibilities in depression, theorizing about its implications for autonomy and our understanding of "free will." Freedom, according to Ratcliffe, is "not, principally, something we experience as internal to ourselves"; instead, all choices and actions "presuppose an experience of freedom… the sense that we are free is written into the experienced world."[73] Rather than a "magic ingredient" added to certain kinds of reflectively willed choices, freedom is simply a "way of experiencing the world"—one that requires the functioning capacity to perceive possibilities.[74] Crucially, the perception of possibility entails not merely the capacity to accurately inventory items in the environment but to comprehend their value, or that which makes them practically salient. If a person fails to experience the environment as soliciting intelligible actions, then their freedom is impoverished.[75] While not all instances of depression are quite so severe, there are cases (such as those of many of our DBS patients) where the loss of intelligibility "goes so deep that the person is unable to make sense of the possibility of anything being practically significant for anyone."[76] There is a timeless or eternal quality in depression that in part results from this loss of practical significance, because the world is not seen as able to change in ways that matter. Stuck in the reified self, severely depressed patients experience a comprehensive restructuring of consciousness, an inability to be deeply affected by the world, to find it desirable, or to effectively attune to it.

All of this has sharp implications for autonomy. Ratcliffe captures depression's effects with the phrase "loss of the world is loss of will."[77] If possibilities are not even perceived as available,

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up with the toothbrush and to actually put toothpaste on the toothbrush and get it to my mouth—all of those things take a lot of effort."

[73] Ratcliffe, "Depression and the Phenomenology of Free Will," 576.

[74] Ratcliffe, "Depression and the Phenomenology of Free Will," 577.

[75] In his book *Experiences of Depression*: *A Study in Phenomenology*, Ratcliffe compares this to the experience of the Crow nation described in Jonathan Lear's *Radical Hope*—the loss of intelligibility that comes with devastation at a cultural level. See Lear, Jonathan. *Radical Hope: Ethics in the Face of Cultural Devastation*. Cambridge: Harvard University Press, 2008.

[76] Ratcliffe, "Depression and the Phenomenology of Free Will," 584.

[77] Ratcliffe, "Depression and the Phenomenology of Free Will," 586.

significant, or intelligible, can one meaningfully claim that autonomy is present?[78] Elsewhere, he explains that the loss of a meaningful world in depression hampers the ability to aspire.[79] Unable to imagine future possibilities, there is nothing better to reach for or to work toward, no reason to act or make choices at all. Clearly, depression runs much deeper than the feeling of negative affect. One major lesson that we can learn from this account of depressed patients' experiences is that autonomy is not a binary phenomenon that is simply present or absent.[80] It is a capacity that can be augmented or diminished, as theorists of relational autonomy have emphasized. Ratcliffe suggests that an important project for phenomenology and psychiatry moving forward is to refine our account of the forms that diminished freedom can take.[81] Medical anthropologists have done an admirable job drawing our attention to the cross-cultural differences in how this diminished freedom manifests.[82] This dissertation grows out of the premise that we would also benefit from a thoughtful exploration of the factors that strengthen and sustain our freedom over time.[83] A phenomenological account of autonomy and aspiration in patients emerging from "survival mode" can teach us about the ways one can and must cultivate the capacity to perceive and pursue meaningful possibilities.

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[78] Recall Carl Elliott's essay, "Caring about Risks," mentioned in Chapter 1, about depressed patients' autonomy being compromised by their inability to care about the risks involved in their choices.

[79] Ratcliffe, *Experiences of Depression*, 117.

[80] We will see in Chapter 5 that many DBS patients themselves have to overcome the temptation to think of autonomy in such binary terms as part of their recovery. It is interesting to note that their depressive "black-and-white" categories are more aligned with conceptualizations of autonomy present in much of mainstream bioethics.

[81] Ratcliffe, "Depression and the Phenomenology of Free Will," 589.

[82] See for example: Kleinman, Arthur, and Byron Good, eds. *Culture and Depression: Studies in the Anthropology and Cross-Cultural Psychiatry of Affect and Disorder*. Berkeley: University of California Press, 1985.

[83] In many ways, it is an attempt to respond to the call of anthropologist Joel Robbins for an "anthropology of the good," learning from others' experiences what might contribute to a life worth living. See Robbins, Joel. "Beyond the Suffering Subject: Toward an Anthropology of the Good." *The Journal of the Royal Anthropological Institute* 19 (2013): 447–62.

Testimonial Collection

While Carel, Fuchs, Ratcliffe, and others have stimulated an expansive discourse on the phenomenology of illness, there is considerably less scholarship on the phenomenology of recovery. My hope is that this project demonstrates that philosophy and the recovery experiences of DBS patients are also mutually illuminating. In the coming chapters, I put the philosophical thought of Emmanuel Levinas and Iris Murdoch in conversation with phenomenological analyses of interviews with DBS patients as they aspire to mental health and a sense of autonomy. The experiences of DBS patients are uniquely enlightening when it comes to an exploration of these issues. Firstly, given the severity of their depression, most of them begin their journey with DBS in a state similar to that described by Ratcliffe—a nearly complete absence of salient or enticing affordances. As they slowly thaw from this frozen state, they experience what the study's psychiatrists refer to as the "rough patch," which is a period, typically over several months, during which the patients adapt to their restored capacities to interact with the world and seek to establish a new functional equilibrium together with those around them.[84] Several patients described this liminal state as similar to going through adolescence again but "all sped up." However, as they go through these rapid, sometimes difficult, changes, they do so as thoughtful, reflective adults with a long history of being introspective as they've attempted a great variety of psychiatric treatments. Accordingly, readers will notice that these patients are exceptionally articulate about their depressive symptoms.[85] They are also participants in a clinical trial that is specifically structured around their reflections. Whether or not the DBS device is deemed effective depends on their subjective reports, so the doctors are invested in getting detailed, thorough answers to their interview questions. This all

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[84] Crowell, Andrea L., Steven J. Garlow, Patricio Riva-Posse, and Helen S. Mayberg. "Characterizing the Therapeutic Response to Deep Brain Stimulation for Treatment-Resistant Depression: A Single Center Long-Term Perspective." *Frontiers in Integrative Neuroscience* 9 (2015).

[85] While enrollment in the DBS trials is open to and includes patients from a diversity of social, economic, and educational backgrounds, the specific cohort that I followed included some particularly well-educated participants, who—fortunately for me—did a remarkably effective and beautiful job putting their experiences into words.

grants us a window on the rare experience of a suddenly expanding field of desirable affordances—"the world opening up," as one patient powerfully put it. Consequently, a clinical trial of a novel device to treat refractory depression functions also as a controlled experiment in moral formation and the cultivation of autonomy.

In a chapter on the use of phenomenological methods in the study of psychiatric illness, psychological anthropologist Thomas Csordas writes that the central focus ought to be not the disorder itself—an "abstraction from lived experience"—but "the modulation of phenomena that exist for a person," what we can learn from the ways in which their cognition is patterned or distorted.[86] Much like Carel, he recommends using phenomenological methods, concepts, and sensibilities in the interpretation of ethnographic data and the use of "ethnographic instances as the concrete data for phenomenological reflection."[87] We have begun with a brief survey of the phenomenology of depression along these lines, but my project aims to fill a gap in the literature by examining patients' efforts to establish *new* thought patterns and *undo* cognitive distortions as they undergo treatment. It is therefore necessarily more longitudinal than much existing literature in the phenomenology of illness and psychiatric phenomenology. Rather than describing the state of depression, it explores the process of overcoming it. This account also therefore grapples more with matters of teleology, since patients themselves are negotiating an evolving hierarchy of desires and values in light of their developing freedom. In other words, no longer focused only on "surviving," and with a growing capacity for desire, they are able to reevaluate the question of what they *ought* to desire, what pursuits are most valuable, and what their newly functional life should look like.

My analysis revolves around how patients interpret their experiences living in a world that is available to them in new ways. And yet their journey does not move in a single direction or at a

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[86] Csordas, Thomas J. "Cultural Phenomenology and Psychiatric Illness." In *Re-Visioning Psychiatry*, edited by Laurence J. Kirmayer, Robert Lemelson, and Constance A. Cummings. Cambridge: Cambridge University Press, 2015: 119.

[87] Csordas "Cultural Phenomenology and Psychiatric Illness," 120.

constant velocity: some patients experience sudden bursts of motivation and energy as well as similarly sudden depression relapses, along with countless nebulous states in between. This complicates their emerging sense of autonomy, leaving it shaky and with a sense of contingency. There is a dynamic back-and-forth between illness and improvement that is stabilized with time, reflection, effort, and help. As mentioned in Chapter 1, I frame this experience in terms of autonomy because 1) it is a central principle in bioethics, often treated in theory and practice as the most essential of them, and 2) because the patients bring it up repeatedly. Even when they do not explicitly invoke the word "autonomy," their changing definitions of successful outcomes—reflected upon in every interview—revolve around goals of self-determination, self-sufficiency, and freedom from incapacity. Furthermore, navigating the difference between who they are and who they aspire to be, these patients are exercising and developing their autonomy in illuminating ways, even aside from what they articulate in words. I believe that this phenomenology of recovery provides us with a thicker account of autonomy, a richer vocabulary for discussing how it is experienced, what it means, and how it can best be supported. Overall, my research goal was to follow the narrative arc as patients learn to live with their device, cultivate their newly available capacities, and begin to figure out their goals for their future in light of the device's effects on their daily lives.

The testimonials gathered for this dissertation primarily came from hundreds of hours of video footage documenting regular in-depth interviews with patients as they underwent DBS treatment for their refractory depression. These interviews were conducted over several years by clinicians involved in the Depression Biometrics lab of Dr. Helen Mayberg at Emory University (though Dr. Mayberg has since moved to the Icahn School of Medicine at Mount Sinai in New York).[88] While the lab maintains an archive of footage from interviews with most of its participants,

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[88] The lab's website can be found at this link: http://www.psychiatry.emory.edu/research/laboratories/mayberg/index.html [Archived at:

spanning trials with slightly different devices, my project most closely traces the outcomes of a specific cohort of 6 participants, all with the same device. As described in Chapter 1, the interviews track these patients over an extended time course, beginning at 4 weeks before the DBS implantation, continuing weekly through the first 6 months post-operation and then biannually with long-term follow-up appointments.[89] They are conducted in addition to symptom-based questionnaires that track patients' depression scores in more measurable terms as well as neuroscientific research modalities such as electroencephalography (EEG), looking for biomarkers of depression and recovery.

While the conversations with the psychiatrists also track symptom changes, they are largely focused on patients' interpretations of those symptoms as well as more abstract reflection, such as how patients conceptualize their illness and the effects of the DBS device (e.g. "does it feel like the device adds something positive or takes away something negative?"). Many exchanges revolve around what are referred to as patients' "buzzwords." These are the key images or impulses that patients pre-defined as particularly significant indicators for tracking their recovery. For instance, some patients suggested that a restored desire to call friends on the phone, to crack jokes, or to wear fashionable clothes should be interpreted as a sign of meaningful progress. Other more musically inclined patients speculated that a willingness to pick up their instrument would mean they were feeling like themselves again. The physicians involved in the study asked the patients about these buzzwords during the initial implantation surgery as a way of testing stimulation parameters. They then would regularly return to them during interviews as the trial went on.

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https://web.archive.org/web/20220202045238/http://www.psychiatry.emory.edu/research/laboratories/mayberg/index.html]

[89] It is important to note here that it is relatively unique that the DBS team at Emory provides ongoing long-term care beyond the initial 6-month designated end point of the trial. As I will explore more closely in Chapter 5, this seems to be a major factor in patients' sustained positive responses to the treatment, especially as reintegration into life outside of the controlled experimental setting comes with a significant number of stressors, new and old.

As an important qualification, it is worth noting that while phenomenological methods involve listening closely to patients' introspective accounts, it does not always require taking their statements at face value. There are certainly times when responses may be motivated, consciously or unconsciously, and require reading between the lines. For example, it is not uncommon for DBS patients to assert that they are relapsing into depression when they begin to experience a widened range of normal negative emotions as part of their recovery. Noticing this pattern, the study's psychiatrists now know to reassure patients that, scary as it may seem, such feelings are a typical part of the "rough patch" and do not necessarily indicate that the DBS has stopped working. This phenomenon is simply a product of the fact that people necessarily draw on their past experiences—as well as culturally available language, metaphors, and narratives—in translating their felt experience into words that can be shared.

As I will dissect further in Chapter 5, patients also default to social scripts and particular narratives in the process of getting a grip on their own experiences, interpreting what they are going through. This is especially true of their definitions of autonomy and wellbeing, which are greatly informed by popular messaging about what it means to lead a healthy and free life in our society.[90] Researchers and health care providers alike must be aware of these narrative temptations and tendencies. Luckily, the study's psychiatrists did an exemplary job developing rapport and building relationships of trust such that patients were comfortable opening up and being receptive to various interpretations of their experiences, a point that was universally emphasized to me in follow-up interviews. In light of these caveats, this project does not seek a perfectly unified or fully consistent representation of "recovery." Patients themselves often draw upon multiple, mutually exclusive frameworks in characterizing their experience. Rather, it relates patients' diverse

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[90] Iris Murdoch suggested that social "convention" is a major source of ego-protective and distorting fantasies that can close our eyes to reality. See for example: Murdoch, Iris. "The Sublime and the Beautiful Revisited." In *Existentialists and Mystics*, edited by Peter Conradi. New York: Penguin Books, 1997: 268.

interpretations of their experiences with DBS and looks for patterns and common themes from which we can learn.

After being added to the trial's IRB, I transcribed, coded, and analyzed interviews using MAXQDA software. Throughout the transcription process, I used theoretical sampling, an iterative technique based in "grounded theory," that allowed preliminary findings to guide subsequent coding and analysis as recurring concepts, themes, and patterns arose.[91] This led to an axial coding phase, in which the codes developed at the more granular level were then clustered in ways that coalesced into higher-order themes (e.g. "metacognition," "building confidence in the device," "joint autonomy"). In addition to analyzing the interviews recorded as part of the clinical trial for the DBS device, I also conducted semi-structured follow-up interviews with the patients to gather their perspectives on the phenomenological themes that had surfaced. While phenomenological interviews were my primary research method, additional complementary practices contributed to a more complete picture. Most useful for this purpose was participant-observation in the lab setting. This included attending weekly lab meetings, where discussions were held about treatment goals and strategies for individual patients, both long-term and short-term, and about emerging neuroscientific data as it related to patients' subjective reports. I also had the opportunity to shadow some of the researchers as they met with DBS patients as well as with patients undergoing other TRD treatments such as electroconvulsive therapy (ECT) or ketamine infusions. All of this provided valuable context as I saw firsthand how clinicians conceptualize their own roles and interact with patients, co-interpreting and cooperatively shaping these patients' experiences. As the coming chapters will continue to explore, patients' experience of autonomy—grounded in the

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[91] Glaser, Barney G., and Anselm L. Strauss. *The Discovery of Grounded Theory*. 1967. Reprint, New Brunswick: Transaction Publishers, 2012.

growing capacities to perceive affordances as salient and desirable—develops in concert with those around them and in response to shared metaphors, narratives, and embodied practices over time.

Chapter 3: “The World Opened Up” – Senses and Sensibility

> Psychiatrist 2: Tell me about the operative experience as you remember it.
>
> Susan: I don’t know why, but I was just thinking about how I remembered looking up and seeing you with a halo (*looking at Psychiatrist 1*).
>
> Psychiatrist 2: She always has that (*laughs*).
>
> Susan: Well, I think I noticed it that day. I remember thinking about the movie *The Princess Bride*, and I was kind of like in the “Pit of Despair” and then felt a connection… It was a distinct thread to something that was good.
>
> Psychiatrist 2: How might that be different from the state of not-being-depressed? How did your feeling in the OR compare to how you are feeling this week?
>
> Susan: I don’t know. I don’t know what normal is. I don’t know what for other human beings not-being-depressed is; maybe it’s like you’re about to get ice cream all the time. I don’t know. I think that some of it is attitude, and some is a change in circumstances, and it may also involve hormones, but I don’t know.
>
> Psychiatrist 2: What were the first things that you noticed were better since the DBS surgery?
>
> Susan: Focus externally as opposed to internally. Feeling like a part of the world that’s going on around me. A sense that it’s okay, as opposed to a sense that there’s something wrong. Looking more toward the future instead of just the current situation. I still try to stay in the moment, but when I’m feeling better, I can think about what’s possible, what I might do. Whereas when I don’t feel well, it’s more like, “Why even try?”

If severe depression is experienced as being restrained—“stuck in a deep pit,” “chained in a prison cell,” “trapped in my own head”—the process of recovery is largely felt as liberation, a restoration of autonomy. The above description of the phenomenological changes that occurred with the activation of the DBS device highlights this sense of freedom. Susan felt more capable of acting and of attending to the world around her. She could perceive possibilities and experienced a reignited desire to pursue them. Her total perceptual and motivational experience was fundamentally transformed.

This sense that "the world opened up" is a prominent theme articulated by DBS patients as they begin on their path to recovery. For some patients, this can be a striking change: even as they lie on the operating table, their environment suddenly becomes more inviting. For others, the landscape of meaningful affordances expands more gradually. Susan described a blend of both dramatic and subtle shifts. On the one hand, as the doctors adjusted device parameters during the operation, everything was "suddenly brighter, lighter, with more depth." On the other hand, changes to her mood and her sense of being at home in the world felt more "like when the sun is coming up in the morning—you don't notice that it's moving until it's in a different place later; or like kids getting bigger—you don't see them grow, but you look back and they were smaller than they are now."[1] For most patients, the general pattern involves a number of relatively rapid phenomenological changes that then allow for the purposeful cultivation of longer-term changes over the months and years that follow. No patient is completely cured with the flip of a switch. Even for those who have the most profound immediate effects in the operating room, the path to health and wellbeing is ultimately a long one.

The journey is slow for DBS patients, because not only are perceptual, conative, and affective changes occurring—so are related epistemic, ethical, and existential changes as well. These take time to adjust to. Just as color becomes more vivid to the eye, with new textures suddenly apparent, so too can concepts, interactions, and relationships take on added depth and nuance. The "world opening up" in many ways amounts to a growing appreciation of its complexity. Patients explain that their depression was characterized by both a diminished ability to perceive the world and a tendency to interpret the world in primarily black-and-white terms. The "existential defense mechanisms" described in Chapter 2 substantially narrowed patients' attention and the repertoire of concepts and behaviors used to process their experience. Recovery, then, is experienced as the escape from an ego-protective shell to perceive, partake of, and participate in

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[1] To this, Psychiatrist 2 replied, "Or like my shirts when I look down and I can no longer close the buttons."

more of the world. Such an expanded range of experiences demands an expanded range and depth of relevant concepts and behaviors to achieve an "optimal grip" on the more vibrant affordance landscape.[2] Patients primarily define this process as the return of their autonomy or the restored capacity to act in pursuit of their goals. Crucially, though, their *understanding* of autonomy changes over the course of recovery as they manage and shape their restored capacity for desire. In these next few chapters, I analyze the evolving relationship between recovering patients and their landscape of affordances as it comes into sharper focus and new possibilities are perceived as available and inviting.

All modalities of psychiatric treatment take time. Recovery from depression, no matter the mechanism, involves the cultivation of new cognitive and behavioral patterns that fit better with reality than did the restricted "survival mode" *habitus*. This process of re-habituation, or re-training one's "controlled hallucination," is far from automatic—even with direct technological assistance. Using a device such as DBS to support this process is less like putting on a pair of glasses with the right prescription (or like using DBS to treat a movement disorder), and more like tuning an old guitar and learning how to play again.[3] To develop a complex skill like playing an instrument, one must learn to appreciate—and even *embody*—complex truths, only some of which can be fully articulated propositionally. Most skilled expertise involves the development of "muscle memory" through practice.[4] Playing well, especially in concert with others, demands cognitive flexibility and the ability to attend to subtle interactions—like a nod from your bass player or a sudden increased

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[2] Bruineberg, Jelle, and Erik Rietveld. "Self-Organization, Free Energy Minimization, and Optimal Grip on a Field of Affordances." *Frontiers in Human Neuroscience* 8 (2014).

[3] Another patient described it in terms of learning to drive a car once the snowed-over roads had been cleared (i.e. once he was freed from depressive thought patterns).

[4] On the relationship and differences between embodied and propositional knowing, see: Wacquant, Loic. *Body & Soul: Notebooks of an Apprentice Boxer*. New York: Oxford University Press, 2003. In terms of our music analogy here, one need not be able to recite certain scales to appreciate the moods they represent or conduce to or to incorporate them into a new original piece. This might also be a major difference between being a great player as opposed to being a great coach. Articulating and enacting are two related but distinct skill sets.

intensity in the drummer's striking of the drum heads—as well as the ability to anticipate how best to serve the needs of the song.[5] A guitar tuner helps create the conditions for such harmony, but there is much more work to be done beyond tightening or loosening your strings.

This discussion of skilled attunement is not just an abstract analogy. One patient, Julie, in fact suggested that her desire to play guitar could serve as a reliable measure of recovery (one of her "buzzwords," as described in Chapter 2). Throughout her interviews, the psychiatrists frequently revisited this motif as a way of evaluating her progress. Eight weeks after surgery, she revealed that she had finally started playing again, in hopes of sharing a song with her partner:

> Julie: Yesterday I got the guitar out and actually dusted it off, and I'm working on learning a new song. So that's kind of a goal for me.
>
> Psychiatrist 1: Can I ask what the song is?
>
> Julie: Yeah, it's a Bonnie Raitt song called "Take My Love With You." I'll probably play that for Kate before she leaves when she comes down to visit.
>
> Psychiatrist 1: A surprise for her?
>
> Julie: Well, I told her about it. She's happy to hear that I'm getting my music out.
>
> Psychiatrist 1: Did you watch that documentary about DBS for movement disorders? The guy plays the guitar during surgery, and you can instantly see his tremor going away.
>
> Julie: Oh yeah, that's right! Well, speaking of, when do I get better? This is week 8 of 24 for me…
>
> Psychiatrist 1: We asked someone toward the end of this 24-week phase, "What would you tell somebody at the start of this process?" And the person said, "Stop expecting things to just happen. Stop thinking you'll wake up the next day, and it'll all be different. That's the number one thing that gets in the way."
>
> Julie: That it's gonna be like a light switch or something, yeah.

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[5] Phenomenologist Alfred Schutz described this pre-propositional experience of "tuning in" or "being in tune" to describe the conditions for communication, interaction, and shared understanding. He used the example of music to demonstrate that we do not simply hear or play notes in sequence; we also necessarily attune to things like composers' intentions, performers' emotions, and audiences' expectations in a shared experience that can span generations. See "Making Music Together: A Study in Social Relationship." *Social Research* 18, no. 1 (1951): 76–97. For a similar analogy—in terms of jazz improvisation—as it relates to moral character and the virtues, see Martha Nussbaum's *Love's Knowledge: Essays on Philosophy and Literature*. New York: Oxford University Press, 1990.

> Psychiatrist 1: Yeah. I mean, that’s not how anything or any treatment in your life has ever worked.
>
> Julie: That’s true.
>
> Psychiatrist 1: You didn’t wake up and suddenly you were amazing at sports that you sucked at the day before.
>
> Julie: Yeah, and I haven’t wholeheartedly jumped all in with CBT yet either. But I’m taking baby steps.
>
> Psychiatrist 1: What gets in the way?
>
> Julie: I don’t know. I mean intellectually I truly believe it’s one of the best therapies for a lot of things. But I don’t know… It’s not that I don’t believe in hard work. I think I just haven’t felt up to doing the hard work yet. I’m just staying cozy in my little rut.
>
> Psychiatrist 1: You kind of set a scene a few weeks ago—of being above the suffering and seeing the depression but feeling the pull of it. What does that picture look like today?
>
> Julie: Hmmm, it’s a very, very familiar old friend (*long pause*). A friend because it was a defense mechanism. It was a way to keep people from truly seeing me. And to keep me from seeing me, more importantly. So, it’s still extremely familiar. But this week I’m not in it.
>
> Psychiatrist 1: Is the work of CBT saying goodbye?
>
> Julie: Hmmm (*smiles*), it’s certainly saying goodbye to some… old behaviors. Um, maybe. Yeah, perhaps. That’s deep. I’ll have to think about that. Yeah, maybe I can send it off with a nice farewell.
>
> Psychiatrist 2: Play it a farewell tune.
>
> Julie: I could. There’s plenty of them out there (*smiles*).
>
> Psychiatrist 1: So, what are your plans for this week?
>
> Julie: Therapy on Tuesday and Thursday, and I don’t know…
>
> Psychiatrist 2: Practicing?
>
> Julie: Yeah, maybe practicing.

Feeling liberated from her most severe depression, Julie rediscovered her passion, using music to express her feelings and connect with loved ones. She also recognized that to do this well—to achieve harmony in service of her goals and relationships—she would have to practice. In many ways, then, Julie's "buzzword" is a perfect proxy of her growing capacity for autonomy. Her relationship with music reflects her ongoing efforts to tune her "neural lyre," in the words of poet Frederick Turner, meaning to harmonize brain and body with the world around her.[6]

DBS patients for whom the device is effective describe its initial effects as enabling them to enjoyably connect with the world and with other people. Over time, they learn to capitalize on these restored capacities to connect and, with effort and support, they achieve a more profound grip on reality than they thought possible when they began the clinical trial. Their understanding of concepts like autonomy and wellbeing deepens. The rest of this chapter will explore the very first steps in such a process as an initial wave of affordances becomes perceptible in the wake of surgery and the activation of the DBS device. At this point, patients have not yet established new cognitive patterns, but they suddenly find themselves relating to the world differently. More aware of the world beyond themselves, they are more capable of taking "baby steps" to better integrate into that world. The exchange with Susan that opened this chapter exemplifies the hallmarks of this initial stage of recovery: outward focus of attention, sensitivity to new perceptual affordances, and a sense of meaningful possibility. Examining the details of these phenomenological changes alongside resonances in the work of Emmanuel Levinas, we will see, is philosophically illuminating.

Levinas and Murdoch

The phenomenology of illness, including phenomenological psychiatry, is an impressive and growing field of scholarship. This dissertation is a phenomenology of recovery. More specifically, it is an *ethical* phenomenology of recovery. While psychiatry and phenomenology have both at times underemphasized the role of ethics in experiences of psychopathology, my project must necessarily

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[6] Turner, Frederick, and Ernst Pöppel. "The Neural Lyre: Poetic Meter, the Brain, and Time." *Poetry* 142, no. 5 (1983): 277–309.

attend closely to the evolving ways in which recovering patients define and aspire to wellbeing and a good life—an inherently ethical task.

As discussed in the previous chapter, the process of recovering from severe depression is essentially one of moral formation. For this reason, it will serve us well to juxtapose the phenomenological accounts of our DBS patients with the reflections of 20th-century philosophers Emmanuel Levinas and Iris Murdoch. These two thinkers are not often read together, but they should be. Both provide invaluable critiques of the phenomenological tradition through the lens of ethics. Both call us to attend to the origins of normativity—to that which pulls people forward, spurring them to act, and the conditions for sensing that pull. Emotions and affectivity loom large in their analyses of the pre-reflective conditions for consciousness. And yet both also couch their critique in Platonic terms, with reference to the "good beyond being" as orienting consciousness, perception, and action. While much of moral philosophy is concerned with rules and principles (nowhere more than in bioethics) Levinas and Murdoch highlight the ethical relevance of what is both "below" and "above" that level of the propositional—the constraints of our embodied nature and the transcendent ideals of metaphysics. In short, they both "describe subjectivity in ethical terms," as the escape from one's ego effected by the encounter with another.[7] As I listened to DBS patients recount their emergence from depression, that essential concept—the escape from ego through encounter—resonated deeply.

To appreciate the ways in which Levinas and Murdoch ethically augment phenomenology, we must briefly revisit its genealogy. As mentioned in the previous chapter, the movement began with Edmund Husserl and his "transcendental" approach—turning inward to investigate "pure consciousness." His pupil, Martin Heidegger, famously diverged from his master by insisting that Husserl's method was overly subjectivist and detached from the world as lived. Heidegger proposed

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[7] Levinas, Emmanuel, and Philippe Nemo. *Ethics and Infinity: Conversations with Philippe Nemo*. 1982. Reprint, Pittsburgh: Duquesne University Press, 2009: 95.

instead a "hermeneutical" alternative. He emphasized that we find ourselves "thrown" into the world, embedded in particular networks of social, cultural, and historical relations that inexorably shape our reality and the ways in which we understand things to be meaningful.[8] The world, for Heidegger, is not first something that we know abstractly, but something we actively use and relate to on instrumental grounds. It is worth flagging here Heidegger's outsized influence on contemporary phenomenology of illness and anthropology of ethics scholarship as well as the 4E and enactivist philosophy described in Chapter 2. Murdoch's and Levinas's critiques of Heidegger should also shed light on current blind spots in these conversations.

Before delving into their divergences, we must first note that Murdoch and Levinas share a great deal philosophically with Heidegger—perhaps more than either would have liked to admit. In addition to our "thrown" situatedness, he also emphasized the inherently motivated nature of our consciousness and the ways in which pre-reflective sensibilities or moods color our thinking. In fact, Levinas's doctoral dissertation explicitly endorsed Heidegger's critique of Husserl: "Is our main attitude toward reality that of theoretical contemplation? Is not the world presented in its very being as a center of action, as a field of activity or of care—to speak the language of Martin Heidegger?"[9] What matters to us determines the contents of our experience. Likewise, though in an early work Murdoch parenthetically suggested that "Possibly Heidegger is Lucifer in person," in her later book manuscript on Heidegger, unfinished before her death, she revealed an awareness of important parallels in their thinking, including the way in which consciousness is always affectively "attuned" to the world, shaping our interpretations of events.[10]

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[8] Heidegger, Martin. *Being and Time*. Translated by Joan Stambaugh. 1925. Reprint, Albany: SUNY Press, 1996: 315.

[9] Levinas, Emmanuel. *The Theory of Intuition in Husserl's Phenomenology*. 1930. Reprint, Evanston: Northwestern University Press, 1995: 119. Levinas's *The Theory of Intuition…* is the first book written on Husserl in French. Levinas would continue to express his admiration for and indebtedness to Heidegger's philosophy even after the Holocaust. For an excellent review of Levinas's claim that he understood Heidegger better than Heidegger understood himself, see Batnitzky, Leora. "'Enjoyment and Boredom: What Levinas Took from Heidegger.'" In *Heidegger's Jewish Followers*, edited by Samuel Fleischacker, 204–18. Pittsburgh: Duquesne University Press, 2008.

[10] Murdoch, Iris. "On 'God' and 'Good.'" In *Existentialists and Mystics*, edited by Peter Conradi, 337–62. New York: Penguin Books, 1997: 358. On Murdoch's later engagement with Heidegger, see: Murdoch, Iris. "Sein Und Zeit:

Given Heidegger's Nazi history, it is unsurprising that these two philosophers would feel the need to distinguish their projects from his.[11] Clearly, both were appalled by his politics, and troubled by the possibility that his philosophy, however brilliant, might in some ways have led him to those politics. Each thus sought an ethical alternative that avoided falling into the evils of totalitarianism.[12] The "totalizing" nature of Heidegger's program is the central target of Levinas's rebuke.[13] He emphasizes that before we relate to the world as an "instrumental totality," we first experience it as embodied affective creatures, subject to and influenced by the world in ways that cannot be reduced to relationships of mastery. He refers to this primordial relation to the world as "sensibility," and we will see below that it is, perhaps surprisingly, key to the radical ethics for which he is most known. Levinas underscores the ways in which plural sources of otherness in the world unsettle and resist our unifying narratives. He further argues against Heidegger that the deepest source of meaning is not capital-H History, but the concrete needs of vulnerable others.

Murdoch, too, suggests that Heidegger's "heroic" ideal of authenticity overly valorizes "intelligence and force of will," resulting in what she describes as his "contempt for the ordinary human condition."[14] Her later manuscript critiqued his neglect of basic interpersonal interactions and obligations, the way he treats common morality as almost an afterthought.[15] Both Levinas and

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Pursuit of Being." In *Iris Murdoch, Philosopher*, edited by Justin Broackes, 93–109. New York: Oxford University Press, 2012.

[11] On his complex relationship with Heidegger, Levinas said: "Of course, I will never forget Heidegger's relation to Hitler. Even if this relation was only of a very short duration, it will be forever. But the works of Heidegger, the way in which he practiced phenomenology in *Being and Time*—I knew immediately that this was one of the greatest philosophers in history." In Levinas, Emmanuel. *Is It Righteous to Be?: Interviews with Emmanuel Levinas*. Edited by Jill Robbins. Stanford: Stanford University Press, 2001: 32.

[12] We should also note here that this virtuous motivation may also have led each of these thinkers to overstate some of their differences with Heidegger.

[13] This can be found as early as his 1951 critique of Heidegger, "Is Ontology Fundamental?" reprinted in Levinas, Emmanuel. *Emmanuel Levinas: Basic Philosophical Writings*. Edited by Adriaan Peperzak, Simon Critchley, and Robert Bernasconi. Bloomington, 1-10: Indiana University Press, 1996.

[14] Murdoch, "On 'God' and 'Good,'" 340.

[15] Heidegger did not only neglect ethical thinking; rather, in his "Letter on Humanism," he wrote contemptuously of ethics, minimizing its importance relative to questions of ontology and arguing that it does not even qualify as legitimate thought. ("Letter on Humanism." In *Basic Writings: From Being and Time (1927) to the Task of Thinking (1964)*, edited by David Farrell Krell, Revised & Expanded Edition., 213–66. San Francisco: Harper Collins, 1993: 219-220).

Murdoch insist that as we search for meaning and truth, we must resist the temptation to "zoom out" too far; our eyes must remain trained on the suffering of real, flesh-and-blood people. This is what Heidegger failed to do, to his disgrace. It is in our encounter with the *particular* other who stands before us, in need of our care, that we come into contact with the deepest truth and the highest good.

Murdoch and Levinas both agree with Heidegger that consciousness is conditioned by that which matters to us pre-reflectively. They argue, though, that it is only in the light of a Platonic "good beyond being" that things come to matter to us at all.[16] On their accounts, this transcendent good—its "magnetic" pull felt most strongly in the presence of another person—is a condition for the possibility of our desire as well as a standard against which we measure, critique, and correct our desires.[17] This is what Murdoch means by the title of her magnum opus, *Metaphysics as a Guide to Morals*.[18] She advocated for a secular "mysticism" from her syncretic "Buddhist-Christian" perspective, while Levinas saw his philosophical project as "translating" Jewish wisdom into secular terms (and in opposition to Heidegger's "paganism").[19] They both believed that everyday morality

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[16] Levinas, *Totality and Infinity*, 293. And Murdoch "On 'God' and 'Good,'" 356.

[17] Martha Nussbaum levels a critique against Murdoch, equally applicable to Levinas and echoing an earlier argument made by David Vlastos against Plato directly, that the magnetism in their account of the transcendent good pulls our attention away from particular individuals, treating them as mere means to a higher good: "One might now suspect that Murdoch's Platonism, like Plato's, sets her in an ambivalent relationship to the sight of the human, that her intense love of the good militates against a loving embrace of the particular in its everyday nonsymbolic realness. Insofar as the good itself is love's focus, there is bound to be much that is unsatisfying in a mere human being." ("Love and Vision: Iris Murdoch on Eros and the Individual." In *Iris Murdoch and the Search for Human Goodness*, edited by Maria Antonaccio and William Schweiker, 29–53. Chicago: University of Chicago Press, 1996: 47.) For Vlastos's argument, see: "The Individual as an Object of Love in Plato." In *Platonic Studies, 2nd Edition*, 3–34. Princeton: Princeton University Press, 1973. For a persuasive response to Nussbaum that greatly influenced my own interpretation of Murdoch, see: Hopwood, Mark. "'The Extremely Difficult Realization That Something Other than Oneself Is Real': Iris Murdoch on Love and Moral Agency." *European Journal of Philosophy* 26, no. 1 (2018): 477–501.

[18] Murdoch, *Metaphysics as a Guide to Morals*, 507.

[19] Levinas on the task of "translating" Jewish wisdom can be found in *Beyond the Verse: Talmudic Readings and Lectures*. Translated by Gary D. Mole. Bloomington: Indiana University Press, 1994: 200. Murdoch refers to herself as a "Buddhist Christian" in *Metaphysics as a Guide to Morals*, 419. She elsewhere writes "Morality has always been connected with religion and religion with mysticism. The disappearance of the middle term leaves morality in a situation which is certainly more difficult but essentially the same. The background to morals is properly some sort of mysticism, if by this is meant a non-dogmatic essentially unformulated faith in the reality of the Good, occasionally connected with experience" ("On 'God' and 'Good,'" 360).

is connected to questions of "ultimate concern" and the holy.[20] *Contra* Heidegger, it is the ethical disruption of our totalizing ontologies by something transcendent that grants us access to the truth. In the language of predictive processing, we might say that this correlates with the fundamental need for prediction error in order to update our mental models. More than anything else, encountering another person frees us from our settled categories and brings us into contact with that greater reality. It opens our eyes to "the extremely difficult realization that something other than oneself is real."[21]

This entanglement of ethics and epistemology, and the subversion of the so-called fact-value dichotomy, is central to the work of both thinkers, and is a theme we will repeatedly return to in the coming chapters. For Murdoch and Levinas, ethics makes possible and conditions higher-order consciousness itself. Consequently, we will see that not only is autonomy a relational phenomenon, as Heidegger teaches us, it is necessarily receptive, responsive, and responsible as well. Real freedom is freedom *from* the self and freedom *to* care about someone or something other than oneself.[22] We can now turn to the phenomenological (and pre-phenomenological) conditions for this freedom as experienced by the DBS patients, beginning with their accounts of the world "opening up" and what Levinas calls "sensibility."

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[20] Murdoch, *Metaphysics as a Guide to Morals*, 512.

[21] Murdoch, Iris. "The Sublime and the Good." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 205–20. New York: Penguin, 1997: 215.

[22] It is worth noting that Murdoch and Levinas both tend to avoid the word "autonomy," likely due to its Kantian connotations, preferring instead to use the language of "freedom." However, they each endorse qualified uses of the term—uses that will help with this project of deepening our own understanding of the concept. For instance, in *Metaphysics as a Guide to Morals*, Murdoch discusses the importance of "autonomy" when discussing modern conceptions of self-formation in contrast to more classical formulations (452). This prompted theologian and close reader of Murdoch, Stanley Hauerwas, to express his "surprise" that Murdoch underwrites such a use of "autonomy," given her criticism of the Kantian term elsewhere (Hauerwas, Stanley. "Murdochian Muddles: Can We Get through Them If God Does Not Exist?" In *Iris Murdoch and the Search for Human Goodness*, edited by Maria Antonaccio and William Schweiker, 190–208. Chicago: University of Chicago Press, 1996: 195). Similarly, Levinas draws on the language of "autonomy" in a way that contrasts his philosophy with a thin, voluntaristic understanding of the concept, describing what emerges as "a new autonomy." (*Is It Righteous To Be?,* 192-193). As mentioned previously, I have chosen to use this terminology due to its centrality in bioethics discourse and the fact that it recurred throughout patient interviews.

Senses…

Among the earliest effects of the DBS are heightened senses, greater emotional range, an openness to possibility, and feelings of connection to others and to the world. Susan's above recollection of her OR experience begins to illustrate some of these, as she sensed a way out of her "Pit of Despair." Others are exemplified in her account of a trip made shortly after the device was activated. One of the first things that Susan did in the days after turning on the DBS was to visit a farmer's market that was recommended to her by one of the study's psychiatrists. Her colorful, enthusiastic description speaks to the radical changes to her attentional experience. Because this extended excerpt encapsulates many of the themes shared across patient reports, I will refer back to it throughout the remainder of the chapter, while also juxtaposing similar exemplary experiences from other patients:

> Psychiatrist 2: Did you like the farmer's market?
>
> Susan: It's amazing! Yeah (*smiling*).
>
> Psychiatrist 2: What did you get?
>
> Susan: Let's see, I got a croissant and some ginger ale. I decided I need to go back soon and get some vegetables. And there was some really good Jamaican coffee… They have everything. I had been shopping in the grocery section of Target. My world opened up! Plus the food actually looks good to me. Huge gourds and melons, nine different kinds of grapes, beans, and peas—I see why you suggested it.
>
> Psychiatrist 2: So what made you go this week?
>
> Susan: Last week I drove by it for the first time, and I noticed that it's right near where I bring my dog to play, so I decided to come early and go to the farmer's market… I had a busy day (*smiling*).
>
> Psychiatrist 2: Is this something that you would do normally?
>
> Susan: No.
>
> Psychiatrist 2: What have you noticed since we turned on the device?

Susan: I feel different in a good way. I feel like I think I should. And each day I say it could be that it's just placebo effect and I'm wishing this, but I'll take it if that's the case… The world has opened up again. You know that metaphor I shared of being in the sea, where I'm treading water? It's like there was a dome around me, a glass opaque dome, and someone took the dome off. It's not that anything outside me actually changed; it's that I can see what's there now—and go swimming!

Psychiatrist 2: What is the first thing you noticed?

Susan: Well, when I left Friday, the first thing I noticed was that I felt I had a buzz, like too much coffee, and I thought that maybe it was because I was hungry. It had been a long day, and I was relieved that we were done, so I chalked that up to the novelty of the day… But it's been there each day, and it's not necessarily a good or bad thing; I just notice it.

Psychiatrist 2: What do you notice? Something positive being added or something negative going away?

Susan: Well, in terms of that buzz, it's different, just like I've had too much coffee. Outside of the buzz, though, I notice I'm less inwardly focused, fixated on the black inside. I don't notice it as much. I'm trying to just be in the moment and let whatever is happening happen, but I feel like I'm awake now. And it's good.

Psychiatrist 2: Is it difficult for you to stay in the moment?

Susan: No, no, it's easier. Just because the moment is okay.

Psychiatrist 2: I know it's only been 5 days…

Susan: I know, and you said don't expect anything specific, so I thought maybe I'm just… if it's placebo, I'll take it!

Psychiatrist 2: Me too! Don't worry (*laughs*), we're not doing a placebo-controlled trial; this is open-label… When were the last 5 days that you remember feeling consistently like this?

Susan: I don't remember. I know that when my depression came back in February 2012, I noticed it coming back. I don't remember noticing feeling good before that. I'm assuming that I did. This doesn't feel completely foreign, but it's different than it has been.

Psychiatrist 2: Is this like it was when you were not depressed?

Susan: Yeah! I think so… I was actually wondering today whether I've ever been not depressed. I don't know. I think I have.

Psychiatrist 2: What did you tell Laura [*Susan's partner*]?

Susan: I said, “I think I feel good.” I’m cautiously optimistic. It could just be that I’m relieved, but I said, “I feel good, and I’ll take it, and maybe it won’t last,” but then the next day it did. I feel good today, too.

Psychiatrist 2: What still needs to get better?

Susan: Um, I don’t know… I would like to not have that buzz.

Psychiatrist 2: Is it difficult to sleep?

Susan: It’s not difficult to sleep. It’s a little like I’m hovering. I’d like to just land a little bit. It’s not intense, but it’s noticeable.

Psychiatrist 2: Mhmm. What other places will you go explore?

Susan: The ocean—my friend is coming next week. I’d love to see the ocean, so we’re going to Savannah.

Psychiatrist 2: Oh! Have you been there?

Susan: Nope.

Psychiatrist 2: Have a beautiful time.

Susan: (*Smiles and nods*)

Psychiatrist 2: In the past, would you have been able to even think about going to Savannah? These are difficult questions to put hypothetically, but would you have gone two weeks ago?

Susan: It was a couple weeks ago [*shortly after the surgery to implant the DBS device*] that I decided I’d like to go, and I told my friend that it would be nice to go. I’m looking forward to it now… It’s not black-and-white; I was trying to think of an analogy for what it’s like. It’s like I’ve had this 2-ton anvil on my back where everything feels heavy and effortful, and it’s been there, and people ask, “How’s it feel?” and it’s heavy and weighted down, and I don’t like it—it’s hard; and you guys go take it off… It feels good! It’s almost too easy. I can’t claim that I’ve earned feeling better. And maybe it won’t last. But I’m okay with the uncertainty of it. Maybe I’ve been spinning my tires, and I’m doing a bit of a peel out now, but I’ll settle into a nice pace and go on my way.

Psychiatrist 2: Do you feel like you’re peeling out, like still accelerating to a cruising speed, like taking off on a plane before you can take off your seatbelt?

Susan: Yeah, there’s a little bit of that. I expect I’ll hit cruising altitude, and maybe it’ll just feel like less of an active change and more… normal.

As this conversation illustrates, the initial DBS effects reported by patients entail a change in their visceral, pre-reflective, basic relationship with the sensate world. Emerging slowly from the pain and inwardness associated with depression, patients find themselves not only capable but also driven to engage with the material world, their senses heightened either suddenly or subtly with time. They experience affordances in the environment not only as newly perceptible and practically relevant, but as exhilarating or appetizing—as we see in Susan's depiction of the variety and quality of the foods on display at the farmer's market. In Levinasian language: there is an enjoyment (*jouissance*) involved in openness to alterity, to that which is beyond the self. Let us now more closely explore a few specific senses as they reflect these phenomenological changes.

Perceiving the World

Enhanced vision was one of the most frequently cited initial effects reported by the DBS patients. Sometimes they described these changes in terms of literal visual acuity, sometimes in the language of interpretation, but most often with a comingling of the two. Susan noted that she can now "see what's there" beyond herself; her perceptual access to the world was restored. Relieved of depression's external barrier and internal pull, she finds herself not neutrally floating but actively enjoying the metaphorical waters. In nearly all cases where a patient reported "seeing better," the change was accompanied by an expression of pleasure in their ability to take in the world around them.[23] Most patients described their perception not as simply restored but as better attuned to complexity, capable of seeing detail they had never appreciated before. Lance, for instance, pointed out with wonder that he was now unexpectedly "noticing that leaves on the trees here in the South are different from those back up North." Others asserted that their sensory organs functioned no differently, but that their interpretations of incoming sensory data were now more "hopeful," and

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[23] The exceptions, discussed below and in future chapters, involved a temporary adjustment period, "getting used to" the sudden brightness of the world or the perception of real but painful or disappointing truths.

less "dark," as Zach put it. He contrasted a post-surgery clarity with his past depressive tendency to "minimize the good things":

> Before the operation, I felt like I was in a fog. I couldn't distinguish a tree from the forest, if you will… It's not like I'd look at a water bottle and say, "Wow, it's darker," obviously, but I would look at a newsreel and I'd be like, "Yeah, sure, there's a ceasefire, but you know it's gonna get worse again, and the whole planet's gonna explode." I would just catastrophize and look at everything so dark. Whereas, in the operating room, everything felt brighter, like I was seeing things differently. I was noticing things like, "Whoa," (*eyes wide*) and mind you I had a limited view because I was bolted in, but from what I could see I was just like, "Whoa," you know? Things just felt more vivid, less like my mind was stuck in that cloud. It was awesome—like if I wasn't bolted down, I could get up and walk around the room, like, "Hey, this is great!" I'm glad they bolted me down, though, because my head was open, and that would've been bad. Just saying… (*smiles*).

After our survey of predictive processing in Chapter 2, we now know that perceptive and interpretive capacities are not entirely distinguishable from each other. Ultimately, differing principally in emphasis, every patient mentioned altered visual experience of some kind as part of their increasingly enjoyable way of being in the world.

The pleasures of smell and taste recurred as a motif in patient reports as well, typically tied to a restored capacity for desire and motivation. Betty spent much of an early interview relishing in the delight of her "senses coming back" and the ways in which they inspired her to beautify her temporary home in Atlanta:

> Betty: I had a fantastic week!
>
> Psychiatrist 1: What's new?
>
> Betty: We went away to Highlands, North Carolina. Left Wednesday and stayed 'til Sunday. Joe [*her husband*] played golf, and we saw waterfalls and leaves and mountains. Went shopping! Lots of places to shop (*laughs*). And eat. Good food.
>
> Psychiatrist 1: Get anything good?
>
> Betty: Yeah. Chocolate cake. Rich chocolate cake.
>
> Psychiatrist 1: How would you have felt about chocolate cake 3 months ago?

Betty: I would probably have responded a little bit to the word “chocolate” but not to the cake itself.

Psychiatrist 1: What do you mean?

Betty: I didn’t actually want it. I had no desire for the one thing I’ve always had a desire for, which is chocolate.

Psychiatrist 1: How was the cake this weekend?

Betty: The taste! The chocolate icing where you just want to eat the icing, forget the cake. My appetite is good, probably better than it should be. And smell—I smell things, whereas before I didn’t smell. Sometimes that’s good, and sometimes it’s bad. But I can enjoy fragrance!

Psychiatrist 2: So you notice a change in your sense of smell?

Betty: Oh yeah. I had none during depression. No sense of smell. We went to the North Georgia outlet mall on our way back and went into Bath & Body Works. It has all kinds of fragrances, and I didn’t go overboard, but I bought a mister with the nice fragrance to go wherever I am because I like smelling it. And candles—we’ve had one in the apartment since we moved over here, but Joe lit it because he knew I could smell it now and like the smell (*smiles*).

Psychiatrist 2: Are you noticing any changes in vision—in what you notice and see?

Betty: Mhmm! Joe said I had “tunnel vision” when I was really depressed, and I could only see what was right in front of me. There were things I wanted to go back and take pictures of when we were driving down the mountains, so I’m seeing details, lots of details now.

Psychiatrist 2: Like what, for example?

Betty: Well, we went out in a little flat bottom boat on a lake on the golf course, and first you see the water and the leaves and then the houses that are on the lake, and I just want to see it all.

Psychiatrist 2: How would that have been different before?

Betty: Anywhere we drove Joe would say, “Well did you see that?” “No, I wasn’t looking.” I just wasn’t looking.

Psychiatrist 2: Anything in what you hear that’s different?

Betty: I’m really enjoying music. Not just enjoying it in the locations where music happens to be playing, but I purposely put music on in a room that I’m gonna be in.

Psychiatrist 2: What do you like to listen to?

> Betty: Oldies. Songs that were popular when Joe and I met and dated and got married—special songs we enjoyed during that time.
>
> Psychiatrist 2: What else have you been up to?
>
> Betty: Well, I bought a few things for the apartment. Up until now, I haven't really wanted to do anything at all to it. My daughter had come and put things on the walls, but now I've got my own plans about where I want to put things.
>
> Psychiatrist 2: What's the motivation for that?
>
> Betty: I've always loved decorating, and I want our temporary home to have things that I enjoy looking at. So that's my motivation. Joe's got the hammer, going around, and I don't really care if it's exact; I used to make him measure, but I just want things up. And our bedroom—he hung a big whiteboard that Martha [*their daughter*] had put my appointments on and other things I need to remember, like birthdays. I want to be able to look at it and have it on my mind, because it's confusing living back and forth between Georgia and Alabama. I feel like a bird making its nest. That's what it feels like—surrounding myself with things I enjoy.

Capable again of finding sights, sounds, and smells appealing, Betty filled her immediate environment with pleasing and useful affordances. In the language of 4E cognitive scientists and philosophers, she reshaped her "ecological niche."[24] Where once she felt apathy and numbness, now she experiences desires and preferences.

Lance also reflected on the relationship between his senses and desire, alternating between literal, interpretive, and neuroscientific framings of these initial changes:

> Does food taste different? No, it doesn't. It's just a change of willingness. It's weird. Two years ago, if I had spaghetti, it was, "I have got to eat this, or I am going to die." And the flavor was not something I was willing to measure even, so I didn't. It was like my brain was not even in tune with "Is the sauce good? Is the pasta al dente?" or whatever. And now I have resumed sensing taste and smell and stuff that I had been too depressed to do. I think my mind was kind of always going to where it had to just to keep me alive. You know, like it was just making my heart beat and all of that stuff. I knew I had to eat, but it was something that I didn't want to do. But now it's like my brain has gotten more RAM, so that I can taste food. That's a new thing for me in five years. I actually enjoy it. I have preferences, you know—"Do I want this or that?" Two years ago, I would have said, "I don't give a shit. Whatever it is that's going to get the calories in,

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[24] Downey, Greg, and Daniel H. Lende. "Evolution and the Brain." In *The Encultured Brain: An Introduction to Neuroanthropology*, edited by Daniel H. Lende and Greg Downey, 103–37. MIT Press, 2012: 118. See also: Bruineberg and Rietveld, "Self-Organization, Free Energy Minimization…," 2.

> because I don't want to die." And now I'm finding that I'm consciously choosing foods, and that I would prefer them to other foods, whereas two years ago I was not even in a place to know how to do that.

As we see in this example, DBS patients frequently went back and forth between conceptualizations or used mixed, even contradictory, language in describing their sensory experience. Yet again, the inability to cleanly categorize shifts in their perceptual, motivational, and interpretive capacities speaks to the inextricability of these elements of consciousness. In sum, though, the first effects of the DBS for most patients included perceiving more, in greater detail, and in a way that they found primarily enjoyable.[25] Like Lance, they reported feeling that they were now able to be "in tune" with different aspects of the world. With a wider range of affordances now experienced as available, salient, and pleasurable, patients' sense of autonomy began to grow beyond the pursuit of mere survival to incorporate a greater variety of preferences and possibilities.[26] Their capacity for desire was reignited.

Freedom of Movement

Awakened to a larger, more vibrant, and more inviting landscape of affordances, most patients also reported an enhanced fluency of movement within this landscape as another one of the striking initial DBS effects. Bodily participation in the world felt more natural, spontaneous, and unencumbered. As Susan indicated above, she no longer felt depression's "2-ton anvil" weighing her down, limiting her ability to move. Zach suggested that he felt mid-surgery like he could "get up and walk around" the operating room. Anticipating the possibility of such effects on the classic

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[25] Compare this also with the effects of psilocybin treatment for TRD, including, for instance, enhanced responsiveness to music: Wall, Matthew B., Cynthia Lam, Natalie Ertl, Mendel Kaelen, Leor Roseman, David J. Nutt, and Robin L. Carhart-Harris. "Increased Low-Frequency Brain Responses to Music after Psilocybin Therapy for Depression." *Journal of Affective Disorders* 333 (2023): 321–30.

[26] Compare this with the effects of DBS in the treatment of OCD as described in De Haan et al. "The Phenomenology of Deep Brain Stimulation-induced Changes in OCD…"

depressive symptom of "psychomotor retardation," the doctors collected video footage of each patient attempting a smile each week in hopes that there might be measurable differences in the movement of facial muscles that could serve as a marker of improvement.[27] Every patient indicated that they found smiling to be less effortful and more genuine as they progressed in their recovery. In her first post-surgery interview, Toni was caught off guard by the sudden change:

> Psychiatrist 1: Can I ask you to look directly into the camera and smile? All right, thank you. How did that feel?
>
> Toni: More natural. I wasn't forcing it nearly as much as I have in the past.
>
> Psychiatrist 1: But you still had to a little bit?
>
> Toni: A little bit, oh yeah, but I didn't even know it was going to feel that natural until you asked me to smile.

Several patients were similarly surprised to hear from others that they were smiling more and increasingly expressive in general, even before they were aware of any significant improvements in their mood.[28] For example, a few weeks after activating the device, as she expressed her worry about a lack of meaningful progress, Julie was notably more active in conversation, especially with regard to her gestures and facial expressions:

> Psychiatrist 1: Are you able to tell what you're doing with your face throughout this whole conversation? Are you aware of it?
>
> Julie: Umm?
>
> Psychiatrist 1: Sorry I put you on the spot.
>
> Julie: No, no, it's okay. I guess I'm moving it more? (*Smiles*)
>
> Psychiatrist 1: Historically, have people told you that? That you're particularly expressive?

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[27] Harati, Sahar, Andrea Crowell, Yijian Huang, Helen Mayberg, and Shamim Nemati. "Classifying Depression Severity in Recovery from Major Depressive Disorder via Dynamic Facial Features." *IEEE Journal of Biomedical and Health Informatics* 24, no. 3 (January 2020): 815–24.

[28] We will analyze this mismatch between observable behaviors and felt phenomenology in Chapter 5 in terms of how patients conceptualized and coped with it.

> Julie: I've had people say that to me, yeah.
>
> Psychiatrist 1: You are! (*Laughs*) You're moving your face a lot now. I wonder if it's really expressing something that you're feeling… if those things are connected for you.
>
> Julie: I think so.
>
> Psychiatrist 1: Because these are faces that I have not seen you make before.
>
> Julie: Wow, really?
>
> Psychiatrist 1: You're scrunching, and one eyebrow goes up—it's just moving!
>
> Julie: Does that indicate anything to you?
>
> Psychiatrist 1: I don't know, but I'm glad we have it.
>
> Julie: Okay, okay!

The difference was so stark, in fact, that the psychiatrists would later show Julie and her partner, Kate, a before-and-after video demonstrating the unmistakable transformation in her expressiveness compared to her nearly catatonic state before surgery.

Lance's wife, Megan, similarly explained that the most telling indicator of his internal state is his face—the genuineness of his smile and the "gleam and glitter" in his eyes. Recounting the events surrounding the DBS implantation, she said to him:

> They turned you on for a minute, and then right after the surgery you had life in your eyes.

Turning to the psychiatrists, she continued:

> His eyes are my favorite thing, and when he has life in his eyes I can tell immediately. When his eyes are just blank, dead, he's in bad shape. It has nothing to do with how he acts with other people; with his smile, if he's faking or not, I can always tell.

Whether or not a machine-learning algorithm would be capable of extracting a universal biosignature from the videos of patients smiling, increased expressiveness and bodily spontaneity plainly mirrored their claims that they felt less physically burdened by depression's "heaviness."

Interestingly, these bodily and behavioral effects typically preceded subjective reports of improved mood and were often first noticed by people other than the patients themselves. Chapter 6 will detail the important role partners and loved ones often played in drawing attention to observable changes and reinforcing certain narratives. In several cases, physical changes were first meaningfully perceptible in a patient's face—an image that holds a special place in Levinas's work, as we will see below.

Many patients posited that the capacity to move more easily corresponded to a freedom from rumination and from the need to consciously intend every micro-step of their actions. Betty suggested that this phenomenon was reflected in changes to her gait as well. She found that the improvement in her ability to walk was particularly pronounced, beginning as early as the day after surgery, and, at her recommendation, the psychiatrists also recorded regular videos of her navigating the hallways of the clinic.

> Betty: It's hard to describe how it felt walking before, but it was like it was not a natural thing. It was almost forced. I felt resistance when I was trying to walk. And now, walking the halls of our apartment complex, it's been natural.
>
> Psychiatrist 1: Where was the resistance? If you were to break down walking—pick up the foot, move it forward, put it down, pick up the other foot—at every point was there resistance? Only at the beginning? Only when moving forward?
>
> Betty: It was probably with every movement forward that I felt the resistance.
>
> Psychiatrist 1: Did you have to think about it, or did you just kind of do it?
>
> Betty: I remember thinking, "This should not be so hard."

Her husband, Joe, agreed:

> Joe: She doesn't walk like she did before surgery. Like she said, it used to be forced, where she didn't want to walk but she knew that she had to, to get to where she was going. She used to walk this way and that, and I'd have to grab her by the arm to keep her from running into people.
>
> Psychiatrist 1: Did she seem unsteady?

> Joe: No, she wasn't unsteady. But it was like she was forcing herself to walk, to put one foot in front of the other. That's the only way I can explain it.
>
> Psychiatrist 1: What's different now?
>
> Joe: She walks! It's not forced. She just puts one foot in front of the other like she had before she got into this depressive state. I was gonna bring this up to you even before she mentioned our hall walks—how much better she's walking now than before.
>
> Psychiatrist 1: Is it just a matter of speed?
>
> Joe: No, she does walk a little bit faster now. Our daughter used to get mad at her, because she walked so fast. And she is walking at a better clip now, you might say, and it's much more steady, but it's like walking is just natural for her now.
>
> Psychiatrist 1: What would happen before if someone else was walking in the other direction and stopped, and they were in your way? Is having to move around an obstacle different now?
>
> Joe: I think that it would be different. Today there were a couple of people behind us, and I could hear them walking, and we were walking side-by-side, and Betty just moved over some, so they could get by. Last week, before the surgery, I'd have to grab her by the arm and ease her over a little bit, so people could get by. I guess she's just more alert as to her surroundings now.

Toni, too, celebrated that after surgery she was able to take her first shower without needing to "think through each motion" and that, in general, she started "doing things without having to mentally prepare myself ahead of each step." When severely depressed, she found any and all movement to be a "struggle" that caused her considerable discomfort. Now, free to move without reflectively willing it, she finds active participation in the world to be enjoyable. Echoing Joe's conclusion above, both Betty and Toni attributed their more natural movement to a newfound awareness of their environment. Able to focus their attention outwardly, they more easily attune to the relevant affordances around them. Another patient, Lee, made this connection explicit:

> Lee: It's kind of weird—I feel lighter and more receptive.
>
> Psychiatrist 2: More receptive?
>
> Lee: Yeah, to things around me and to doing things.

Like Lee, many patients described their motivation and capacity to act as stemming first from a receptivity to that which is beyond the self, an openness to otherness. Their accounts indicate that a prior receptivity to the particulars of the environment is a necessary precursor to action—to freely enacting one's desires. To borrow parallel language from Iris Murdoch, underlying autonomy is attention. As Susan put it, with the DBS activated, patients can now see what's out there in the world "and go swimming!"

Emotional Range

Complementing their enhanced sensitivity to the wider world, DBS patients also exhibit a greater range of internal sensitivities. Where once they felt "numb," "robotic," or "frozen," activation of the device engenders emotional lability. Many of the above passages depicted heightened senses and more natural participation in the world in terms of hope, excitement, and enjoyment. It is crucial, however, to note that the DBS does not simply make people happier; rather, patients develop a capacity to experience the whole range of emotions in response to relevant stimuli. Patients commonly reported a sense of gratitude that they could feel negative emotions specifically, contending that this was an indispensable part of human existence. Being able to react appropriately was to them a defining feature of living, as opposed to "just surviving." Susan articulated this position when she declared: "There are now moment-to-moment changes in my mood. I can feel pleasant, unpleasant, nervous, comfortable, happy, worried—but it's all okay!" As she mentioned in the extended exchange above, her perspective is no longer just "black-and-white." More nuanced thoughts and emotions now better match up with her complex, dynamic reality.

One of the experiments conducted as part of the DBS trial involved tracking patients' reactions to emotional movie footage—scenes from *The Notebook* and *The Sound of Music*, for instance—over the course of the first six months. A self-professed movie buff, Lance found this to be an especially useful introspective technique for measuring his progress. In his first interview after the surgery, he described a dramatic deepening of his emotional response that made the viewing process more satisfying:

> Lance: It's like turning up the contrast. It went from a dull enjoyment to a more vivid enjoyment, if that makes any sense. I was a little more in tune with the plot changes, and it was a more dynamic type of entertainment, you know?
>
> Psychiatrist 1: Was there a different emotional response or feeling state?
>
> Lance: Prior to the surgery, I think the worst thing I had was anhedonia. I just didn't care about doing anything. So, in terms of the emotional response, I would say that my ability to connect to the characters' inner feelings was kind of new to me. It was something I would've had for sure 10 years ago. I could watch a movie like *Schindler's List* or something, and I would actually cry a little bit. But that wouldn't happen to me a month ago. No way. And that sense of connecting with the emotional undertones seemed to be restored more to the way I used to feel. I felt more emotional connectivity to the character's feelings than I would've. That's amped up a little bit.

Emotional variety and subtlety allow for not only greater harmony with one's environment, but also more profound connections with other people. Like Lance, other patients commonly reported that their enhanced emotional range corresponded with a deepened interpersonal understanding. This even manifested as an empathetic appreciation of characters' feelings on screen.

Betty's home life provided something of a natural experiment for analyzing emotional changes potentially effected by DBS. Her son had gotten married a few years before, during one of her lowest points, when she "was a zombie" and "didn't enjoy anything." Incidentally, her daughter's wedding was scheduled to take place one month after the activation of Betty's DBS device, presenting an opportunity for comparison. After the wedding, she returned to Atlanta and recounted her experience:

> Betty: I was feeling so many emotions—the pride I felt looking at the expressions on her boys' faces, because they adore their new stepfather, and just so much love. I wrote in my journal: "I felt surrounded by love, the love of relatives and close friends."
>
> Psychiatrist 1: Sounds like you felt really connected to that love.

> Betty: I did, I did. My thoughts went to how when she was a little girl she related so much to her daddy and now he was giving her away. Just overjoyed that I could feel those emotions again.
>
> Psychiatrist 1: Did you cry?
>
> Betty: I did. Not boo-hoo cry, but when that feeling wells up in you, it just comes naturally out of joy.
>
> Psychiatrist 1: So, different from your son's wedding?
>
> Betty: Oh yes, very different.

As we see in these examples, emotions are experienced as a means to connect with and respond to others. They provide a meaningful way of attuning to the social environment that is impeded by severe depression. Before her daughter's wedding, Betty "had not cried for a long time." Yet, in contrast to the alienation felt at her son's wedding, she reveled in a profound sense of openness to and harmony with her family, thanks in large part to her reestablished emotions. Just as her capacity for movement felt more natural, so, too, did her emotional responses. We will explore these feelings of connection in greater detail in Chapter 4.

Perhaps counterintuitively, patients often cited the restored ability to cry in response to sadness as an unexpected but meaningful indicator that they were no longer as depressed. For instance, in another interview, Betty argued that crying was an important aspect of processing emotions in a healthy way: "It's a good thing, because all these years I couldn't cry, and crying is a good release—if I'm not crying, then I'm not dealing with things." Reflecting on his post-surgery reactivity, Lance pointed to his response to the departure of his son after a brief visit to Atlanta:

> I can feel my bandwidth of emotional feeling has returned. There was such a profound anhedonia before the surgery that I was almost too numb, too depressed to cry. The DBS has given me back an ability to actually cry when something kind of tears my heart out a little bit. I had an episode of crying and feeling like my old self again that was just phenomenal… I don't think I'd cried in 2 or 3 years. I was so excited to see my son. I hadn't seen him for a while, and every time I see him and he leaves it's really sad to me, because I miss him a lot. I found myself just leaking out of my eyes, and I remember getting up and saying to my wife, "This is fucking

> fantastic! I'm so sad that Charlie's leaving—I'm crying, but I'm not depressed, and it's just awesome. I'd bottle this if I could." I'm so happy that I'm finally out of that sewer.

Given depression's vernacular conflation with low mood, one might be forgiven for not anticipating such celebration of sorrow. However, especially later in their recovery, patients made clear that they appreciated negative emotions as a medium for attuning to reality and for participating more fully in their relationships. As long as the response corresponded appropriately with the demands of a situation—if it was "about" something real—they were grateful even for emotions like sadness, grief, fear, and frustration.

Learning to relate to emotions as meaningful and intelligible involved something of a learning curve once the DBS began to take effect. Several patients reported an initial hypersensitivity—one that could be jarring. As she emerged from her most severe depression, Julie was astonished at her extreme propensity for tears, but at least found hope in the restored capacity:

> Psychiatrist 1: You said that when you first wake up there is a sense of being tearful?
>
> Julie: Oh yeah. It started last week. This is really stupid, but it happened after a TV show. This woman who was singing and just telling her story. Her voice—I loved it. And that's when the flood gates just opened.
>
> Psychiatrist 1: So, it was in response to something?
>
> Julie: I thought so. Until it just lingered. Then I had the song in my head that I obsessed about for three days. I could not get it out of my head. So that was all kind of happening, just like uncontrollable crying, just sobbing. And in reality, I wasn't—or, I didn't feel like I was—depressed. Although I was scared that the depression was coming back, you know? So, I was not quite sure what was happening.
>
> Psychiatrist 1: If it wasn't depression, what was it?
>
> Julie: Just extreme sadness.
>
> Psychiatrist 1: And how do you know that that's different from depression?
>
> Julie: Well, that's never happened to me before, where I'm just crying constantly.
>
> Psychiatrist 1: Has any level of tearfulness been a part of your depression historically?

> Julie: This seems related to sadness as opposed to depression. To me, what I see as my depression is no affect.
>
> Psychiatrist 1: And this is like overwhelming affect?
>
> Julie: Oh yeah. Yeah, it was amazing.

In another interview, she referred back to her relationship with her guitar to assess this newfound reactivity. Whereas before surgery the insensitivity attending depression kept her from connecting with her music, early in the DBS protocol she felt unable to play for the opposite reason—an overwhelming sensitivity:

> Psychiatrist 1: Does the intensity of your feelings change in this process?
>
> Julie: Right now, they're pretty intense. (*Eyes widen*) They're pretty intense, so yeah.
>
> Psychiatrist 1: If you feel an intense feeling, is it in response to an appropriate stimulus, something that would be expected to create an intense feeling?
>
> Julie: I think I actually feel more raw right now. The feelings are more intense. I know that's a definite change. Yeah. You know, there are times I want to go and pick up a guitar, but it's just like (*simulates hyperventilating*) I can't do it. So, that's a different reason that I can't pick it up now... Yeah, I'm definitely more raw. Exposed.

Julie's experience exemplifies a broader liminality following initial activation of the DBS device. Alongside her "raw" emotions, Julie discovered that the taste of certain desserts was now pleasurable in a way that "knocked [her] for a loop," necessitating that she indulge only in small servings at a time. Similarly, Lee shared that he had to start wearing his sunglasses outside for the first time in years "because things seem so bright." Such hypersensitivities were often disorienting.[29] Much like the "coffee buzz" that Susan described above, patients appreciated their

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[29] It is important to note as well the confusion added by the fact that some of this discomfort almost certainly resulted from the combination of DBS and patients' ongoing regimen of medications; the doctors involved in the study shared with patients that sometimes the stimulated brain becomes newly or increasingly receptive to medication effects. We will discuss this more in future chapters. In most cases, reducing specific medication dosages helped to relieve side effects like feelings of overheating or irritability.

restored perceptual and emotional capacities, but felt the need to get them under control as they aspired to a more stable state.[30]

Several patients compared their surprising emotional reactivity to the experience of adolescence and revised their treatment goals over time in terms of "growing up," as they learned to regulate their initially tumultuous mental function. Patients were faced with the challenge—hinted at in Julie's comments—of distinguishing newly available and relatively unfamiliar negative emotions from a relapse into their past depression. Not unlike the classic teenage experience, they had to work hard to integrate their wider range of emotions and order them appropriately. Furthermore, with the return of powerful and diverse desires, many patients struggled with the decision-making this entails. The process of recovery and the cultivation of autonomy, we will see, involves coming to understand and shape those capacities restored by the DBS. Making it through what the doctors call the "rough patch" is a long-term project, one we will explore in detail in Chapters 5 and 6.

…and Sensibility

Patients' accounts of more natural and enjoyable ways of being resonate with Levinas's claim that our fundamental relationship to the world is affective, a concept that he refers to as "sensibility." As briefly introduced above with regard to his critiques of Husserl and Heidegger, his primary phenomenological claim is that, prior to intentionality and practical interest, we are *sensitive*.[31] In his first major work, *Totality & Infinity*, he focuses on the example of enjoyment. We find it enjoyable when we satisfy those needs necessary for survival, but also often when we

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[30] In terms of predictive processing, these feelings of hypersensitivity and emotional reactivity make sense as a side effect of DBS if greater prediction error is being admitted in ways that patients are not yet accustomed to. See Barrett, *How Emotions Are Made*, 212.

[31] Levinas, *Totality and Infinity*, 136. Note that this is not temporally prior. Importantly, this pre-reflective state of sensibility is not actually phenomenologically available on Levinas's account; rather, it is a condition of the possibility of subjectivity.

participate in activities unrelated or even opposed to mere survival, such as watching a movie, skydiving, or even sacrificing ourselves for a higher good. Levinas emphasizes that we enjoy sources of nourishment not only as means to subsistence, but as ends in themselves:

> "We live from 'good soup,' air, light, spectacles, work, ideas, sleep, etc. … The things we live from are not tools, nor even implements, in the Heideggerian sense of the term… They are always in a certain measure—and even the hammers, needles, and machines are—objects of enjoyment, presenting themselves to 'taste.'"[32]

The human relationship with the material world—this "living from"—is not strictly utilitarian; instead, a given experience "delights or saddens," falling somewhere on a continuum of pleasure.[33] No longer fixated inwardly, for instance, we saw that Susan appreciates the beauty and flavor of food at the farmer's market, not only the fact that it will sustain her. It "looks good" to her, presenting itself to taste. Sensibility, for Levinas, is a form of pre-reflective, embodied sense-making. One might think of it as a basic form of cognition shared with other animals.[34]

Levinas describes sensibility as "experience preeminently"—the primordial structure of phenomenological experience that precedes intentionality and self-awareness and functions as the condition of their possibility.[35] Reflective thought represents only one narrow slice of our conscious experience: "One does not know, one lives sensible qualities: the green of these leaves, the red of this sunset."[36] In his later work, *Otherwise than Being*, Levinas is clearer that the category of sensibility is broad enough to include not only enjoyment but also suffering, as well as all the ways

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[32] Levinas, *Totality and Infinity*, 110.

[33] Levinas, *Totality and Infinity*, 112.

[34] He refers to it as "animal complacency" from which we are awoken in the encounter with another (Levinas, *Totality and Infinity*, 149).

[35] Levinas, *Totality and Infinity*, 109.

[36] Levinas, *Totality and Infinity*, 135.

in which we are "exposed" to the world.[37] In addition to the affective component of our cognition, sensibility also refers to our creaturely condition as *affected by* that which is other. "Sensibility," he argues, "…cannot be reduced to an experience that a subject would have of it, even if it makes possible such an experience."[38] This "passivity more passive than all passivity" is our *vulnerability*, the fact that we are not simply in control of our selves or the contents of our experience.[39]

As sensitive beings, it is our essential affectivity "wherein the egoism of the I pulsates."[40] Enjoyment, Levinas explains, is the beginning of interiority, and through it the self achieves individuation, separation from the world as a distinct entity. Before the order of reflective consciousness, the ego is constituted in its sensibility, basking in that which the environment affords:[41]

> The self-sufficiency of enjoying measures the egoism or the ipseity of the Ego and the same. Enjoyment is a withdrawal into oneself, an involution. What is termed an affective state does not have the dull monotony of a state, but is a vibrant exaltation in which dawns the self.[42]

Of particular note here is the fact that the self does not create, cause, or contain enjoyment; rather, the directionality is reversed—the ego is a "contraction" that is supported by enjoyment.[43] The subject condenses into being through affective interaction with the world.

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[37] Levinas, Emmanuel. *Otherwise Than Being, or, Beyond Essence*. 1974. Reprint, Pittsburgh: Duquesne University Press, 2009: 63.

[38] Levinas, *Otherwise Than Being*…, 54.

[39] Levinas, *Otherwise Than Being*…, 14.

[40] Levinas, *Totality and Infinity*, 135.

[41] One might also think of this as the type of consciousness experienced by infants before they achieve higher-order thought.

[42] Levinas, *Totality and Infinity*, 118.

[43] Levinas almost certainly based this image on the Kabbalistic notion of "*tzimtzum*." See Meskin, Jacob. "The Role of Lurianic Kabbalah in the Early Philosophy of Emmanuel Levinas." *Levinas Studies* 2 (2007): 49–78.

Another vital implication of this account is that sensibility overflows any attempt at objectification. It has a "dynamism" that exceeds the "representational content" of any consciousness that would seek to reify it.[44] For Levinas, mental representation is the unilateral imposition of previously held categories upon that which is other: "the 'act' of representation discovers, properly speaking, nothing before itself."[45] Sensibility, on the other hand, involves a bidirectional relationship wherein the self simultaneously "determines the other while being determined by it."[46] The subject is also affected. The particular reality of the objects we enjoy updates, refines, and makes possible in the first place our categories of understanding. Levinas invokes Plato on the matter:

> As Plato noted, besides the eye and the thing, vision presupposes the light. The eye does not see the light, but the object in the light. Vision is therefore a relation with a 'something' established within a relation with what is not a 'something'… To comprehend the particular being is to apprehend it out of an illuminated site it does not fill.[47]

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[44] Levinas, *Totality and Infinity*, 187. On the significance of this "excess," see Seeman, Don. "Otherwise than Meaning: On the Generosity of Ritual." *Social Analysis* 48, no. 2 (2004): 55–71.

[45] Levinas, *Totality and Infinity*, 125.

[46] Levinas, *Totality and Infinity*, 128.

[47] Levinas, *Totality and Infinity*, 189. Note the parallels also with Murdoch's statement (in "On 'God' and 'Good,'" 357) on the role of light in the Cave metaphor: "Plato pictured the good man as eventually able to look at the sun. I have never been sure what to make of this part of the myth. While it seems proper to represent the Good as a center or focus of attention, yet it cannot quite be thought of as a 'visible' one in that it cannot be experienced or represented or defined. We can certainly know more or less where the sun is; it is not so easy to imagine what it would be like to look at it. Perhaps indeed only the good man knows what this is like; or perhaps to look at the sun is to be gloriously dazzled and to see nothing. What does seem to make perfect sense in the Platonic myth is the idea of the Good as the source of light which reveals to us all things as they really are. All just vision, even in the strictest problems of the intellect, and *a fortiori* when suffering or wickedness have to be perceived, is a moral matter."

Our very capacity to grasp the world emerges out of a prior openness to alterity which exceeds and conditions it. The ability to learn and grow, to update our mental models, depends on receptivity to prediction error. Subjectivity requires being *subject to* that with which one is in contact.

According to Levinas's earlier account in *Totality & Infinity,* the precipitation of a self out of sensibility occurs prior to an encounter with other people. Fundamentally relating to the world as a source of either contentment or agony—"like a hungry stomach"—one is "innocently egoist and alone."[48] He refers to this way of being in the world as a naïve "hedonist" morality.[49] In enjoyment, everything in the world is met by the ego as "for myself," to be assimilated into "the same."[50] The ego is singularly motivated to satisfy desires and preferences, "beyond instinct, beneath reason," not yet aware of the needs of others.[51] He then describes the presence of another person as interruptive—unsettling this primordial thoughtlessness, inducing the self into consciousness, and prompting reflection about one's responsibilities beyond preference satisfaction. Given that Levinas is most known for his radical ethics, the egoism of enjoyment might seem out of place. In fact, however, it critically scaffolds his ethical argument. As he writes in *Otherwise than Being*, "Only a subject that eats can be for-the-other."[52] The meaning of sacrifice—"tearing away of bread from the mouth that tastes it, to give it to the other"—depends on the fact that one not only needs but even wants and enjoys what they have.[53] In this later work, he breaks from his earlier temporal framing of sensibility and reveals that the encounter with another should instead be understood more as a necessary condition for the possibility of human experience at all.[54] The reality is that we are never

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[48] Levinas, *Totality and Infinity*, 134.
[49] Levinas, *Totality and Infinity*, 134.
[50] Levinas, *Totality and Infinity*, 134.
[51] Levinas, *Totality and Infinity*, 138.
[52] Levinas, *Otherwise Than Being*..., 74.
[53] Levinas, *Otherwise Than Being*..., 64.
[54] Bernasconi argues that one should read Levinas both transcendentally and empirically, because he intends to blur the distinction between them and subvert the dichotomy itself. See Bernasconi, Robert. "'Rereading Totality and Infinity.'" In *The Question of the Other*, edited by Arleen B. Dallery and Charles Scott, 23–34. Albany: SUNY Press, 1989.

truly alone, free of responsibility. We are exposed to others and their needs from the start. We will return to the significance of this shift in his philosophy in the next chapter.

For our purposes, we can coarsely summarize Levinas's account of sensibility thusly: we have borders, but they are permeable. Our discrete and substantial self depends on its openness to being affected by alterity. We are exposed to the world, vulnerable, needy, and subject, and it is at the level of this affectivity that the encounter with another takes place. Ethics, for Levinas, is intelligible only in light of our corporeal, affective creatureliness. In *Totality & Infinity*, the other calls me to account for my existence and enjoyment, directing my attention away from egoistic contentment and towards ethical obligation and purpose. In *Otherwise than Being*, responsibility for the other invests my subjectivity originarily. My attention is always already conditioned by a passive relationship with the other to whom I owe a response. Consistently throughout Levinas's oeuvre, sensibility describes the precondition for responsiveness to the other and for the exercise of choice to make any sense. Our autonomy emerges out of the constraints of our embodied nature.

Stimulating Sensibility

Levinas's notion of sensibility draws our attention to the dialectic between the borders of the self and their dependence upon that which is other than the self. This conceptual framing can help us deepen our understanding of the testimonial reports provided by DBS patients as they recovered from treatment-resistant depression. As I mentioned at this chapter's outset, depression is often experienced as a feeling of imprisonment, of being trapped alone and unable to properly connect with the world. Similarly, patients largely define their recovery in terms of autonomy, the desire and freedom to enact meaningful possibilities. Having surveyed some of patients' initial experiences with the activation of the device, we are now better positioned to appreciate what they mean by this. Recalling the phenomenology of "survival mode," in which attention is directed overwhelmingly inward, we might characterize depression in terms of reduced affectivity, or overly rigid borders of the self. Limited in their ability to attend outwardly or to be deeply affected by others, patients feel stuck in their ego: "with depression, everything becomes so self-centered, it's sickening," Julie laments. Several patients used almost Levinasian language to describe this experience, as when Betty explained that in depression, "nothing helps to take my mind off myself." What we described in Chapter 2 as the "reification" of the self in depression corresponds to an inability to properly attune to anything beyond the self. Patients describe a diminished landscape of affordances and possibilities because their illness renders them insensitive.

While Levinas ultimately contended that there is no phenomenological access to the sensibility's pre-reflective ego, it would seem that, in some ways, increasingly severe depression asymptotically approaches that state where attention has not yet been directed outward. However, given that patients feel depression's centripetal pull—"a black hole in the soul," in Lance's words—as thoughtful adults with felt obligations, they cannot in the end fully revert into a primordial state of enjoyment. They instead suffer anguish, alienation, and in many cases feelings of moral failure. Unable to function meaningfully in the world or provide for the needs of those around them, some of them experience forms of what Matthew Ratcliffe calls "existential guilt."[55] By this he means that guilt colors their overall way of being in the world when depressed; it is not due to a specific incident. For example, before her DBS is activated, Betty explains that her total conscious experience is colored by "self-loathing" grounded in "guilt over not being able to interact or be a part of my family and feeling that it's my fault." The imprisonment caused by a lack of sensitivity is devastating. Without a means to escape the self, Levinas explains, the weight of being is suffocating, oppressive.[56]

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[55] Ratcliffe, *Experiences of Depression*, 143.

[56] We will explore in Chapter 4 Levinas's account of being as oppressive and the need for escape or transcendence. It is beyond the scope of this project, but one might also compare this type of incapacity with Murdoch's notion of "Void."

It is worth noting that this near-reversion to the ego in "survival mode" also seems to approximate a caricature of Heideggerian instrumentalism.[57] With Heidegger in his sights, Levinas contends that "Food can be interpreted as an implement only in a world of exploitation," where basic aspects of human experience are denied or unavailable.[58] Sometimes explicitly invoking the context of "struggling to stay alive," utilitarian calculation featured prominently in patients' stories of depression. In Lance's account above of eating while depressed, he relates to food in an utterly functional way—"get the calories in." Zach described his depressed cognition in similarly transactional terms:

> My family would ask me to do something, and I'd be like, "Well, I really don't feel like it, and if I'm gonna do something, what can they do for me later?" It was definitely more of a trade-off type of thing back then… like a fight for survival: if I do something for them then they'll do something for me, which will help me survive a little bit longer."

Elements of the material world and interactions with others were often reduced to factors of subsistence, either threatening or conducing to mere survival. Indeed, there was a direct correlation between utilitarian, survivalist language and the severity of patients' depression, with a shift away from such concepts as they progressed in their recovery. This phenomenon of escaping from what several patients called "black-and-white" thinking is the subject of Chapter 5.

As we might expect in light of a Levinasian account of sensibility, patients did not experience this tendency toward instrumentalization, or other of depression's cognitive biases, as orthogonal to problems of depressed mood. "Survival mode" is manifestly unpleasant. Levinas argues that "To despair of life makes sense only because originally life is happiness," meaning there is no phenomenology, no human experience at all, without affectivity.[59] Happiness, on his account, is made up "not of an absence of needs," but of their satisfaction; "Suffering," then, "is a failing of

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[57] It is again worth emphasizing that one can debate the extent to which Levinas overstates some of his differences with Heidegger and whether or not he does Heidegger's philosophy justice when critiquing it.

[58] Levinas, *Totality and Infinity*, 134.

[59] Levinas, *Totality and Infinity*, 115.

happiness."[60] TRD patients' profound suffering results in large part from an inability of the body to attune to the world. Relating to the world in an utterly instrumental way means that one is failing to meet basic human needs beyond mere survival. They are "trapped on the bottom rung of Maslow's hierarchy," as one patient put it.[61] In predictive processing accounts, we experience pleasure when our predictions go well (or better than expected), reflecting a good grip on reality.[62] However, with the centripetal pull of the ego rendering people with depression insensitive to alterity, they are incapable of assimilating prediction error, updating their mental models, or relating to the world or other people in more complex ways.

Without Levinas's account of sensibility we might be confused hearing Toni's statement that when depressed she feels "numb and void of emotion, but that void brings great pain." Almost paradoxically, it seems, being numb to the world hurts. As the next chapter will explore, depression impairs patients' ability to consider, let alone meet, higher-order human needs. Yet, with the DBS active, receptivity to alterity is restored and they have the opportunity to transcend the borders of their body and begin to relate to the world in increasingly complex and fulfilling ways. We saw the first manifestations of these changes in this chapter. In the next we will see that, in addition to experiencing more simple desires and preferences, their capacity for autonomy also expands to address questions of value, meaning, purpose, and ultimate significance—"metaphysical desire."[63] No longer mistaking two-dimensional shadows for the whole of reality, recovering patients emerge from the cave of the self and learn to see greater color and depth in the light of the sun.

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[60] Levinas, *Totality and Infinity*, 115.

[61] This is a reference to Abraham Maslow's "Hierarchy of Needs," a framework developed in his 1943 paper "A Theory of Human Motivation." See Maslow, Abraham H. "A Theory of Human Motivation." *Psychological Review* 50, no. 4 (1943): 370–96.

[62] Miller, Mark, Julian Kiverstein, and Erik Rietveld. "The Predictive Dynamics of Happiness and Well-Being." *Emotion Review* 14, no. 1 (2021): 15–30.

[63] Levinas, *Totality and Infinity*, 33.

Chapter 4: "Desire to Connect" – Response and Responsibility

> As the depression developed, it's almost like a wall was being put up. I didn't want to be around people. I felt like people couldn't understand me. So, I started disconnecting quite a bit from the people in my life. I preferred to be alone. I grew some resentments as well, unfair judgments towards my siblings and my parents. When I describe my perspective as "unfair" and "unjust," it was mostly just jealousy—of a lot of stuff. My sister went to college and got her degree, my brother's out working, and I was like, "Why me? Why was I the one who had to be chosen to have this?" So, any time I was asked to do anything, it came with a lot of push-back, and people didn't want to ask me for help with anything, because it became a chore for them. It was probably very tough living with me. I'm grateful that they didn't just give up, because then I wouldn't be here.
>
> But you know during the DBS surgery my whole family was there with their support and love. Even before then, when I was going through other treatments, I started being more open to them, and I got a lot of empathy from them, which helped me with those resentments and made me aware of my role in the relationships. Right after the DBS surgery, my willingness to be of service and help around the house grew a lot, just over those first few months. So, that made our relationships a lot better. We were talking more. I was talking more with everyone—my siblings, especially—and showing them more of the love and support that they had been giving me for all these years. That continued to increase, and now it's like I have a pretty phenomenal relationship with my family. I'm able to help them not just with physical activity, but even in conversations. I don't know why, but my sister comes to me for a lot of life advice now, and I'm like, "You're the one with the master's degree!" But she'll ask me for social advice, saying, "You're so good with people," and I'm like "Well it's because I run on batteries! I have an unfair advantage" (*laughs*). But it's so, so cool that she comes to me for that; it's such a gift. And it's the same with my parents and my brother—we get along so much better.
>
> Like I said before, it used to be more of a transactional thing, that "fight for survival," and now I know that when I do something for other people, I feel good. That was definitely another major psychic change I went through after DBS. From the surgery until now, it's like I see things differently—if I help them that *is* my survival. Like, if I do something for them, I don't need anything in return; I already feel good.
>
> – Zach

In the previous chapter, we examined DBS patients' heightened sensitivity and its effects on their perception of the sensate world and of their internal affective milieu. Patients emphasize that shortly after the device begins to take effect they see the world with more color, contrast, and depth. In this chapter, we will explore another way in which they started to "see things differently," as Zach mentioned above. Unfailingly described as the most meaningful effect of the treatment, patients reported an increased sense of connection with other people. The social world opened up for them as well, as personal interactions also took on added depth and nuance. Zach was no longer stuck looking inward, ruminating on questions like "Why me?" and thinking in primarily transactional terms. Rather, freedom from depression for Zach and the other patients began to manifest as renewed openness to others and spontaneous ethical responsiveness. Patients frequently referred to this capacity for connection as a guiding source of direction and purpose as they reflected on the meaning of their growing experience of possibilities, considered its implications for their identity, and revised their definitions of treatment success. Zach captured this when he stated that serving others "*is* my survival." As we will see, interpersonal ethics colors the phenomenology of recovery for patients throughout their DBS experience. Just as receptivity to the material environment enabled more natural participation within it, social receptivity engenders increased responsiveness to others, feelings of responsibility, and higher order reflection about what matters most.

I mentioned in the previous chapter that, in Levinas's early writing, he depicted the encounter with another person as interruptive, drawing one's attention beyond the borders of the naïvely hedonist ego. While he did not intend this account to be taken as phenomenologically descriptive—there is no pre-encounter state—the experience of recovery from severe depression does, in important ways, approximate this escape from the self. This is especially visible in the course of treatment with DBS, with its more "real-time," sometimes even immediately felt effects. No longer focusing inward or interpreting experience through a "transactional" lens, as Zach put it, patients are suddenly free to consider questions related to higher values. As part of their recovery, they ask questions like "What really matters?" "What should my desires be?" and "What am I to do with my life?" These questions are defining of their sense of autonomy. The answers to these questions that they found most compelling in the end always concerned their relationships with others and their responsibilities toward them. DBS patients came to appreciate, as we will now examine, that autonomy is only meaningful and intelligible in light of a prior heteronomy, attending to the needs of others.

Response…

Most patients characterized their inability to connect with other people as the "absolute worst symptom" of depression, the source of their most profound suffering. In one of her first interviews, one month before implantation of the DBS device, Susan related this perspective:

> If the DBS is going to end up working, I Imagine I would have access to an emotional connection to other people—both ways: being able to feel warmth towards people and experience what I know is warmth coming to me. But right now, it doesn't penetrate. It's like something's broken. Like, I know it should make me feel reassured or close to someone when they try to be kind or compassionate. But it's like it hits a wall. That is what I think is the hardest of everything.

The "opaque dome" that she earlier depicted as inhibiting sensory access to the world in depression also obstructs sociality. However, once the DBS effects were first felt, she described the contrast between her restored sensitivity and her past depressive tendencies:

> Susan: I wake up and think about what I might do in an eager kind of way. I see possibilities. There's a sense that the world is brighter, more alive. I go for my walks, and it's almost like the difference between a dark, rainy day and a sunshiny, breezy day. I see more, I hear more, and I feel happy to see pretty things. And I find myself thinking about other people and wanting to connect.
>
> Psychiatrist 1: Are you able to?
>
> Susan: Yeah. I was thinking today about several weeks ago when I was feeling really, really low, my mom called and said she was thinking of driving down with my dad to see me, and I said, "No, stay home." Now, if they were to call… Actually, now I'm thinking of calling them and saying, "Hey, if you have some time, come down." My desire to connect is what has changed.

For all patients interviewed, such openness to others generates a motive force. This directionality transforms life from a static scalar to a dynamic vector. Allowing for participation in the social world, the "desire to connect" also thus relieves patients of their existential isolation. Levinas and Murdoch both describe this desire in Platonic terms as the magnetic pull of transcendence. Felt in the encounter with another, it opens our eyes to reality and orients us to the "good beyond being." DBS patients similarly share that this interpersonal desire ultimately underlies how they conceptualize their evolving treatment goals and the longer-term search for meaning that becomes possible upon their release from the prison of the ego. At first, though, the restored capacity for connection manifests simply as social synchronization—readily reacting to a facial expression, maintaining a conversation, remembering someone's name, or noticing and responding to the needs of a stranger.

Conversation

In the early days and weeks with their DBS device, many patients found themselves to be surprisingly chatty. As Zach shared in this chapter's opening excerpt, he quickly found himself "talking more to everyone" and taking opportunities to reciprocate his family's love and support. Toni also described her enhanced ability to participate in conversation:

> When I've gone out previously, with my mother or my brother, I usually don't really participate in the conversation. I'm just there, spaced out, not really able to tune in to what's going on around me. But now, my voice is stronger, and I can participate in conversation easier. I noticed that. Those are interesting changes.

Less likely to get stuck ruminating or overthinking their responses, patients "tune in" more naturally in dialogic give-and-take. In an interview a few weeks later, Toni elaborated:

> I can really tell by how much I'm communicating with Calvin [*her partner*] or my mom. I might not even notice it myself until I stop and think, "Oh, I'm really engaged in this conversation and laughing." It's more enjoyable, and I'm more lively in conversation. I might even initiate conversation now. That's another sign of improvement.

This newfound spontaneity paralleled the greater ease with which she was able to move and smile, as discussed in the previous chapter. With regard to motor coordination, she described being more receptive and aware of her environment, allowing her to more smoothly and actively navigate it. A similar phenomenon seems to occur in the language space as well. As patients become more perceptive of the affordances of a given conversation, they find verbal exchanges to be more fluid and enjoyable. Julie repeatedly brought up the growing "motivational component" of social connection:

> I'm interested. I care now. I'm more patient with people, and I listen. I've gotten back my active listening skills, and I inquire more. I really like to connect.

Openness to otherness enables more effective, effortless, and enjoyable interaction.

Many patients and their loved ones understood these differences in communication patterns to bear significant implications for their personal identity. Betty's husband, Joe—a charming but not especially loquacious gentleman—was taken aback by her sudden remarkable enthusiasm for conversation in the days after surgery:

> She'll get on the phone with a friend, and they'll laugh and talk for an hour. She wants to talk on the phone now! Before, her phone would ring, and she'd say, "I can't talk to them now, I can't talk." Now, the phone rings, and she's got it every time—even if it's a telemarketer, she'll answer the phone (*laughs*). She'll text with friends of hers, get on social media, comment on things… Before this, that just would not happen. It's like that's a different person sitting there; she's back to being the person that I married 45 years ago.

According to this interpretation, Betty is in meaningful ways *not* who she was a month before but *is* again who she was decades ago. Likewise, Lee recognized his desire to participate in conversation as a return to his pre-depression "goofy" self:

> Lee: This weekend we went to my sister's house for my niece's graduation.
>
> Psychiatrist 1: Oh, yeah? How was that?

> Lee: It was nice. There were a lot of people there, probably about 15 or 20 people. I noticed that I was fine being around everybody and throwing a joke out there, making fun of somebody, or, you know, just goofing around a little bit.
>
> Psychiatrist 1: Yeah? Is that how it used to be?
>
> Lee: Yeah. I'm a goof.
>
> Psychiatrist 1: How was that to be goofy with your family?
>
> Lee: It was fun. I mean, they were laughing, and I was laughing. I felt much better than I had.

While many, like Lee, endorsed this renewed gregariousness, others found themselves questioning the authenticity of their experience. Susan, who normally describes herself as an introvert, noticed that she was becoming more outgoing in unexpected ways:

> I had a couple of Jehovah's Witnesses come to my door. We talked for a bit (*laughs*), and as they left, I thought, "I should've invited them to come in." I don't really care about what they have to say, but I don't know, I have more of an interest in exploring and talking to people. So, that was new.

Another time, she stated, with her typical laconic wit, "I want to talk now. That's different." At first, she heartily welcomed the difference. It was obviously better than her past feelings of estrangement. With time, however, she sought something of a golden mean instead:

> Susan: I'm a little hyped up and chatty. I'd like for that not to be all the time. I said to my friend, "If I say something inappropriate, will you tell me?" I haven't, or at least nobody's told me I have, thus far. It just feels different to me to be spontaneous.
>
> Psychiatrist 2: What spontaneous things have you done?
>
> Susan: Just in my conversation, I don't prepare every sentence, it just comes out.
>
> Psychiatrist 2: That's how it was before?
>
> Susan: I felt like I had to think about everything before I said it. Part of that was the effort of communicating when depressed, and some of it was trying to make sure that anything that I said was okay.
>
> Psychiatrist 2: There seems to be less latency. If I ask you something, do you respond faster?

> Susan: Yeah. It does come more freely, but I think I’d like to have a little more of my filter back.

Later, noting that with the DBS in place she is “more spontaneous in conversation than I ever was before,” she contemplates the possibility that “maybe that’s how I am at my core… It’s okay, but it’s different.” Just how sociable a person she wants to be—and whether or not increased sociability represents her “authentic” or “true” self—remained an open question throughout the recovery process. This is not so different from the sudden disorientation that resulted from heightened senses in some cases. We will discuss such questions of identity more below, and in Chapter 6 we will more closely examine the longitudinal process by which patients retrain their “filter,” as Susan put it, managing these restored capabilities in an authentic and responsible way.

Humor

Zach’s quickness to offer a joke—“I run on batteries!”—and Lee’s renewed “goofiness” reflect another development shared by several patients in the early days after the DBS is turned on—the reemergence of their sense of humor. There was a distinct uptick in the frequency of laughter shared with the psychiatrists conducting the interviews. Lee even proposed that his sense of humor functioned as a useful “buzzword” for monitoring his recovery week to week, given the centrality of playfulness to his sense of identity and wellbeing:

> Yesterday I was cracking jokes, and people were laughing, and we were all hanging out. It was really enjoyable. I noticed that, you know? That made me happy—to notice that I'm doing that stuff again. I never would have been able to do all that when I had depression so bad. But yesterday it was just easy. And, you know, I was thankful.

He would regularly illustrate his improvement with reference to things like his increasing enjoyment in lighthearted “trash-talk” with his nephew on Facebook or his commitment to the role of princess when playing pretend with his young daughter.

In the days after the initial surgery, Lance's wife, Megan, described to the psychiatrists a comparable stark change:

> Megan: His sense of humor came back this weekend. We had our daughter and her husband come over to visit, and Lance was making fun of himself and laughing, which was something I hadn't seen him do in ages.
>
> Lance: I made believe I had a lobotomy and acted like I was out of it, and my daughter was dying laughing (*smiles*).
>
> Megan: The swelling in his head made his ears stick out, and his eyes were really bad. I had been very stoic up to that point, but my daughter looked at me, and the two of us just burst out laughing. He didn't get upset; he went along with it, and that was wonderful. It was that his sense of humor had returned. He was joking with everyone, and it was great. That was a big change, because I don't see the dark depression. (*Turning to Lance*:) I could tell by the way you were interacting that this was something that was reaching outward, and I could share it with you.
>
> Lance: I think that's new. I have back what I haven't had for a long time.

Weeks later, he further analyzed the evolution of his sense of humor and its loss over time to depression:

> I was thinking about this a lot over the weekend. I think if I'd had a more healthy and positive outlook on life, where I didn't feel like I had to swim the fastest or be the best student or all that stuff I put on myself, I probably over the long haul would've had a more normal sense of humor and happiness and stuff. Because I remembered back to before I put all that on myself—back around middle school—I remember laughing so hard that it hurt. I just used to think that things were really funny. And then I started getting really serious about going to a really good school and doing well, and then I got a job with a terrible demanding boss who was a prick to me, and I was there for years… What I'm saying is that there was a shift in what it meant to succeed or whatever, but I think before that all started to culminate, I was happier. I was able to laugh.

As we saw in Chapter 2, psychiatric illness always has a history; there is a developmental arc worth exploring as the brain reinforces certain neural activation patterns ("what fires together wires together"). Lance's reflection here reveals a narrowing of his attention over time that likely contributed to depression's cognitive rut and his eventual inability to enjoy things as he once did. A restored sense of humor—or of a specific type of humor—as patients recover can be understood as another measure of sensitivity to the world.

Phenomenological reflections from several patients and their loved ones mention not only an increase but also a change in their humor, specifically noting a greater context-sensitivity. In a joint interview, Julie's partner, Kate, pointed this out:

> Kate: She was making jokes that were current.
>
> Julie: Current jokes? (*smiles*)
>
> Kate: Yeah, it was weird!
>
> Psychiatrist 2: As opposed to 1990s jokes?
>
> Julie: (*laughs*)
>
> Kate: No, I mean like relevant. Like during the Super Bowl you were joking about dabbing, and I was like, "That is crazy!" She was making jokes that were not just self-deprecating little comments but actual funny jokes. I don't know, it was just different.
>
> Julie: The quality of my jokes went up? (*smiles*)
>
> Kate: (*laughs*)
>
> Psychiatrist 1: Are you referring to a situational connectedness? Like it landed differently because it wasn't just a line—is that what you mean by "relevant"?
>
> Kate: Yes!
>
> Julie: Yeah, I see that.

Narrow "self-deprecating" forms of humor might have been available to her when depressed, but as she felt better, Julie saw her humor become progressively more responsive to the particulars of her environment. Zach underwent a similar change. He described using humor earlier in life as a defense mechanism to shield himself from judgment, uncertainty, and worries about self-worth. With the DBS, however, his comedic sensibility was more interactive and circumstantial:

> I’ve been told recently, “Hey, you should try stand-up; you’re really funny.” But I’m more situationally funny. I don’t know that I could write a joke and bring the audience into that joke. I’d be willing to try it, which is another big difference. But I think I’m just better at reacting to a situation and making people laugh in the moment.

For these patients, joking seems to have become less about the need for control and more about sharing an experience with others.

Ethical Impulse

In addition to the heightening of their general responsiveness to others, patients also regularly described feeling more ethically alert with activation of the DBS. Just as they reported feeling motivated and capable of initiating conversation, many also experienced an intuitive desire to be of service and helpful to others. Zach offered a narrative that exemplified this impulse:

> Zach: I pulled into QT the other day, and there was a woman out by the side who worked there, and she was trying to get this trash bag out, but it was so full that it was kind of suctioned in the can. So, I just got out of my car and said, “You need a hand?” I was hoping she wasn’t going to scream and pepper-spray me (*laughs*), but she said, “No I got it. It’s just stuck.” I said, “Are you sure?” and she was like, “Well, if you don’t mind…” She was in her uniform, so I’m sure she didn’t want to get in trouble, but I was just like, “Yeah, I don’t mind.” So, I walked over there and helped her get the trash out. I pulled up at that QT not planning on anything like that—I was actually going in there to get some cookies, because they are just delicious—but I saw this opportunity. I could’ve just been like, “It’s gonna be weird; they’re gonna ask what’s wrong with me.” But all those thoughts in my head went out the window real quick when I just opened my mouth and said, “Can I help? What can I do?” And she just said, “I really appreciate that. It made my day.” So, I registered that—like, “Hmm, cool.” I’m finding that the more I can do for others, the better I feel. Obviously, I have to help myself too, and it’s not like I’m super selfless or anything, but any time I can be, I will be.
>
> KWD: How do you feel you would’ve reacted to that situation while depressed?
>
> Zach: Oh, I wouldn’t have even noticed it. I had such tunnel vision on just the basics. I probably wouldn’t have been going for cookies—I’d have been going for cigarettes. Thank God I don’t do that anymore.

Zach here points out that his ability to respond well to the demands of the situation depended entirely on the widening of his attention beyond self-consoling habits, a Murdochian theme I will develop in Chapter 5. Seeing someone in need of assistance inspired him to overcome past cognitive and behavioral compulsions. When depressed, he "wouldn't have even noticed," but now he both perceives and feels motivated to assist another in need.

Lance also associated his revamped ethical drive with his heightened senses and affective receptivity. In the second interview after turning on his device, he shared:

> When I take the dog for a walk now, I'm enjoying it more and feeling less like it's something I have to do. I'm also probably a little more aware of my surroundings—the smell of the spring and the woody smell of the leaves coming out. I think I was not even processing it before, and now it occurs to me that spring has a smell, and I smell things being alive again. I would say it's possible that I'm a little more in touch with my ambient surroundings. And you know, ironically, this morning there was litter all over the sidewalk and road, and there was a part of me that, if I wasn't in a hurry to get here, I wanted to go grab a trash bag and pick it up, just because. I don't know. It's something I don't think I would've contemplated before, but now I don't know. It was like, "Why would somebody think it's okay to do this?" It was obvious that somebody had just emptied their trash on a nice, clean, respectable sidewalk. It almost looked intentional; it was that bad. And I wanted to, you know, I guess just do the right thing and get rid of it.

Noticing the litter strewn on the sidewalk, Lance felt the urge to think in ethical terms that he suggested would not have occurred to him while depressed and to act in light of that thought process. Three weeks later, he would point to his spontaneous desire to be of service as a behavioral indicator of progress, worth acknowledging even if he did not yet feel free of depression:

> Today I emptied the dishwasher, folded clothes, and did a bunch of stuff. And as we were leaving my wife just said, "You seem better today." I told her, "You know, usually in the morning I feel like crap, and I don't feel like crap right now." I'm not quite a happy camper, but you know… She noticed that, I guess.

After another several weeks, Lance described the progression from not feeling "like crap" to a fuller experience of "the whole bandwidth of emotions," which he depicted as inherently evaluative, grounded in care:

> Psychiatrist 1: Last week you had been telling me about having this sense of widening emotions. How is that going?
>
> Lance: Good. Good, because it's unlike the pure depression. And it feels like it's stabilizing. I'm adjusting to that sense. It's like my senses got blunted in depression and now you increased the bandwidth of the five senses and also of happiness and frustration and all the things you don't care about when you are that depressed. That whole corpus of palpable feelings of right and wrong is definitely coming back and stabilizing. The whole range of emotions, like anger and irritability—I can feel them because I care now.

Much like his reaction to the sidewalk litter, Lance highlights the reemergence of his ethical intuition—"palpable feelings of right and wrong"—and connects it to the fact that he can pay attention to things and that they can matter to him again. This exchange is taken from part of a conversation in which Lance was processing the ease with which he now found himself angry or irritated, often in response to perceived slights. While in the past, his typical response to certain forms of conflict involved shutting down, putting up barriers, and numbing himself, he is here grappling with the challenge of forming new response patterns and better interpreting his nuanced emotional reactions. In Chapter 2, we surveyed the literature on interoception and predictive processing, which suggests that emotions reflect a basic assessment of how our bodies are handling a given situation. Lance here seems to agree that his emotions are an interface between perception and motivation, worth interpreting in view of their normative implications. Feeling frustration, for instance, might spur him to correct something about his situation. Part of his recovery, as we will examine further in the next chapter, involved learning to understand the meaning of his emotions and what they imply about how he should exercise his autonomy.

Lance was not alone in conceptualizing his urge to take on responsibility as a marker of progress. Every patient—some more frequently than others—referred to it as a sign that they were escaping from the excess self-concern of depression. Some measured the time they spent taking care of their children or pets, while others methodically tracked the steps taken searching for a job. For Julie, it was the ability to pay bills, with the goal of relieving her partner of certain household duties. Susan gradually expanded her professional workload, a central source of meaning in her life. However, while they each endorsed the idea that these were signs of improvement, they were also careful to highlight the risk of moralizing recovery. Susan clarified the distinction:

> It wasn't that I was choosing to not take on responsibility. I was struggling to stay alive. That's not saying, "You know, I don't think I'll join a committee right now." It's instead, "I can't be on a committee, because I can hardly leave the house." Staying alive was all I could do. So it wasn't really a matter of priorities and choices so much as it was just that it's not possible to do those things other than superficially sometimes. My priority was to not die. I mean, seriously, a great deal of my life was not ending it, avoiding giving up. In terms of Maslow's hierarchy, my priorities have shifted from staying alive to now doing things that are possible when you're not focused on that alone.

In their final follow-up interview, Julie and Kate offered additional nuance regarding the positive feedback loops linking recovery and responsibility:

> Julie: In the very first phase, people could see that I was doing more, but I didn't feel better. Then the second phase involved doing more and starting to feel better. And I just now thought of it like this, but starting to feel better motivated me to want to be more a part of the relationship and to take on more responsibility at home.
>
> KWD: How would you describe the causality there? Did taking on responsibility also then make you feel better over time? Or did it just follow?
>
> Kate: I mean, we need to remember that to a certain degree she couldn't have done anything—she couldn't even take a shower or get dressed without encouragement. So there's no circumstance under which we could've said, "Okay, Julie, get up out of bed and pay the bills now, and you'll feel okay." That would never have happened. But, once you get a bit of momentum feeling better, only then can you get to doing some of these things.
>
> Julie: Right, yeah. Like when I was really depressed, people would say, "Well, just go for a walk" or, "Just watch a happy movie." It's like they don't even know what they're talking about—it's not that! But now, it kind of is that. Now, I'm able to get myself to go for a walk, and I do feel better. But it's because I can get myself to do it in the first place. And there is some reward to doing things like paying the bills and doing volunteer work. So that helps my self-esteem and keeps things moving forward.

What we have dubbed "survival mode" is sometimes experienced as an ethical failing from the inside. Hence the feelings of shame and guilt that often accompany it. However, these accounts suggest that, as outsiders looking in, we must be careful not to blame the victims of depression or claim that their illness represents an abdication of responsibility. As we have demonstrated throughout this project, severe depression is often characterized by the loss of meaningful autonomy, the inability to act on one's desires, ethically or otherwise. Just as Susan signaled with her reference to Maslow's hierarchy of needs, certain basic conditions must be met before an individual can turn their attention outward and even begin to respond to many of the affordances of their environment. Once they are freed from the prison of depression, however, the phenomenology described by patients is ethically valenced from first to last.

Reciprocal Relationships

Julie indicated that feeling better motivated her "to want to be more a part of the relationship" with Kate. This was a common consequence of the rekindled ethical impulse. With the DBS working, patients felt capable and driven to be more substantial contributors to their relationships. Consider Lance's elaboration on his "black hole" metaphor for depression:

> You're so folded in on yourself—this is another part of the black hole—that you've lost the ability to engage. It's not that you don't want to. You wish you could participate in the world, but you're not gonna talk with anyone because it's just gonna take from them... Now, I'm able to give back.

Depression not only pulled his own attention inward but also demanded the attention of loved ones around him. It made him feel like a drain on their energy. Without it, though, he's free to "give back." Regarding the relationship with her partner, Susan summarized this dynamic succinctly:

> It's no longer that I'm depressed and she's dealing with it; it's that we're both able to be more present with each other. It's more of an equal relationship now.

With regard to her relationships more generally, she elsewhere expounded:

> My relationships have been less focused on me and more focused on others. Friends and family were often understandably concerned about me, and their focus was on just supporting me. So

> my ability to focus on somebody else and be part of a two-way interaction with people made those relationships better. Now I can listen to other people and offer feedback, support, and just engage with them in a way that's not one-directional. I think people are also more willing to struggle in my presence where they may not have been willing before—to not burden me with their own issues. Now people are more willing to say, "I'm struggling, and I need something from you," so I can be a friend back. Or a sister or a daughter.

Whereas depression rendered patients' experience closed-off and static, almost object-like, they now felt more like subjects, open to increasingly complex roles in their relationships. A fundamental component of their developing sense of autonomy involved establishing bidirectionality in their relationships.

In addition to this reciprocity, DBS patients also universally felt a sense of responsibility for their relationships. Beyond feeling like equal reciprocal partners, they also emphasized context-specific normative asymmetries. These included ways in which they saw themselves as either indebted to others or uniquely empowered to serve. Lee repeatedly expressed a sense of obligation to his loved ones—above all, his wife Darcy—who also deserve to have their needs met:

> Darcy is my motivation, because she has done so much for so long. As I get better, I'm trying to take on more to take the pressure off of her.

The desire to serve as a contributing member of one's relationships was the predominant theme as patients contemplated their ongoing progress and their hopes for the future. Coincidentally, several patients had people close to them experience medical emergencies during the first months of their DBS protocol. After years inhabiting the "sick role," these patients had demands for their care thrust upon them.[1] In each case, this prompted them to reflect on their performance functioning as caregiver in light of the device's effects. In only her second week with the DBS active, Toni had to rush her partner, Calvin, to the emergency room to treat complications of his diabetes, including an infection and stroke:

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[1] Parsons, Talcott. *The Social System*. 1951. Reprint, New York: Taylor & Francis, 2013: 296.

> Toni: So, it's weird because when I came here last week, I was having a pretty hard time. And the next day I started feeling much better. And that day is when Calvin had to go to the emergency room. So it's like everything kind of happened at a good time, I guess.
>
> Psychiatrist 2: How do you imagine your response would have been previously, compared to how it is now?
>
> Toni: It would have been a lot more difficult for me to pull myself together enough to accompany him and to help him. It just would have been so much harder. I probably would be in tears, not able to handle it, maybe having a meltdown at the hospital right along with him. It just would not have been nice. I had a lot of emotional pain still, but my energy level was different, so it was less of a challenge dealing with the situation.

In the following weeks, she would take charge of managing his medications and diet, "charting everything and helping him remember what he needs to do." Calvin later noted that her taking on responsibilities in this way was "one of the main reasons it feels like things are beginning to change."

Julie faced a similar challenge when her partner unexpectedly needed spinal surgery. Kate just happened to have scheduled a week off of work to visit Julie in Atlanta, so the timing was doubly serendipitous. Given that she had been a nurse back home in Kentucky, Julie found returning to her caregiver role to be a powerful experience:

> It was amazing to be there. The timing, and everything, was just freaking amazing. That Kate had to have this surgery, and that I was there. I don't know, I'm just glad I was there. It was kind of surreal being home. That hit me once we came back home and she was discharged from the hospital—I went to lie down, and I just, like, started bawling. I was just crying. I needed the release. And then it was okay.
>
> It felt weird being home. I saw my parents, and my nephew, and my sisters, and each time I would get anxious before they came over. It was like, "No, no, no, I don't want to see them." But then once they came, it was great. It was really good. And it gave me hope. It was like giving me a little taste of what being home's going to be like, and I think that was good for me.

Julie worried that she wouldn't be able to handle the demands of the situation, including simply interacting with family, and she was tempted by past depressive reactions such as isolating herself.

Yet, motivated by the responsibility to care for her partner, she found that she was not only capable of rising to the challenge but that the experience was fulfilling and inspiring.[2]

Lest we assume that bidirectional relationships are inherently pleasant and straightforward, it is worth mentioning here that not every attempt at reciprocation was well-received. With increasingly frequent and complex interactions comes a greater possibility of conflict. Lance, for instance, felt abruptly "woken up" to the differences in the relationship with his son, compared to their pre-depression dynamic. The whole family had traveled to California, where Lance's son, Charlie, intended to propose to his girlfriend. Much the perfectionist like his father, Charlie had a somewhat elaborate plan. Unfortunately, not every minor piece fell quite into place, and Charlie reacted strongly. Seeing his distraught son, Lance tried to offer comfort and advice but was rebuffed. He was then caught off guard by how sensitive he felt in reaction to his son's "ugliness":

> I think he was taking out his frustration on me, but I also realize that, with this depression I've had, it's like I went to sleep when he was a young twenty-year-old, and now I woke up and he's a thirty-one-year-old man. When I was trying to give him advice, he was not kind, and it hurt my feelings a lot, and it just kind of set me off balance. I don't think I am as resilient as I'd like to be, but it was something that would be hard on any parent—to realize that you've missed so much and also that your little pal who used to idolize you is now telling you off. It was a lot to realize at once.
>
> The depression has been so engulfing of my awareness, my life, my everything, it just abducted me. It stole my life. Just trying to get through a minute at a time turned into a day at a time turned into a year at a time. So from 2002 to this year when you people have implanted this device in me and I'm feeling like there are signs that I might be pulling out of it, I also am realizing that I had depression so long and so severely that I missed out on a lot, and it's sad to me.
>
> Now I feel like my feelings and my awareness of all that have really started to return, which is why I said I'm "awake" now. I am able to plug back in and take things in and engage with other people, including my kids. This whole experience has made me realize that, since 2002, I haven't been able to do any of that, and it's sad to realize that I missed all those little nuances. All of a

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[2] In her follow-up interview, years later, she would again point to caring for her elderly in-laws as an exemplary expression of her autonomy.

> sudden, in catching up, my feelings are hurt. If someone had injected me with something and put me to sleep for twelve years, and I woke up, I would have to grieve in the same way. I lost twelve precious years to depression.
>
> I actually had an epiphany about the future—I've got to kind of relearn where I am versus where I was when this started, you know? I am in a whole different situation. I was an important person in three big companies, and now that's over. And I guess I need to reconcile the fact that I have two adults for children now that don't always need dad's advice unless asked for. It hurts a little bit to realize some things that I used to be numb to.

Even at their best, relationships come with complications and stressors. Maintaining those relationships requires negotiation that takes into account people's evolving needs, desires, and priorities. The kind of care that Lance's son needs at thirty-one differs significantly from that required in his teenage years. While in this chapter we have seen snapshots that mark the beginning of this negotiation process, Chapters 5 and 6 will investigate what this looks like over time.

Ethical Reflection

Thus far, we have been discussing DBS patients' increased social responsiveness and heightened sense of responsibility to other people, including the impulse to actively contribute to their relationships. We now turn to a more metacognitive element of this phenomenological experience. As many DBS patients describe it, another aspect of their freedom from depression consists of an ability to think deeply about whether their reactions and desires are what they ought to be. In other words, they are now freer to contemplate their values and how they might embody them. Newly open to the possibility of meaningful change in their lives, patients assume a more active and aspirational role in their self-formation. Several of them expressly framed this issue as a matter of cultivating their autonomy, the ability to make choices and enact them. As Betty put it, "I've got an appetite now, but if you ask me what I want, I can't decide." Patients increasingly desire enjoyable experiences and meaningful interactions, but to satisfy their desires, they have to make decisions, big and small. Many of these decisions require conscious introspection about one's priorities and hierarchy of values, and patients often share that this introspective experience is vastly different with the DBS exerting its effects. Some patients conceptualized this type of higher-order thought as a luxury that was generally unavailable when stuck in "survival mode."[3] Others characterized their reflective capacity not as newly available but as profoundly reshaped in the wake of DBS. In either case, a primary element of patients' recovery involved thinking deeply about who they ought to be, how they ought to think, and what they ought to do with their lives.

A few weeks after Charlie's engagement and Lance's subsequent epiphany, he laid out the existential challenge and opportunity that comes with the capacity for reflection about these "huge questions":

> I am now willing and able to contemplate the huge questions, whereas before the surgery I think all of my energy was devoted to surviving, doing the things that I needed to do just to get by. I was kind of a zombie, just doing what I knew I had to do but not enjoying anything at all. And I think whatever the surgery's done thus far, it's started to prove to me that it may in fact be likely that I'm gonna have a mind that lets me examine what I am willing to do and want to do for the first time since I fell victim to this incapacitating disease. The surgery has gotten me to a place where I can actually ask those questions and explore the options. I could not have done that before the surgery; that was not even a possibility. I had no freedom to think of what I would like to do, because there was not one thing that I would like to do. Nor did I have the energy or willingness to even contemplate them. I theorize that the DBS is starting to affect the ability of my brain to have a capacity and a willingness—very importantly, a willingness—to even look at that question. This operation is starting to give me real hope that I'm gonna be able to reengage.

Patients very frequently invoked the notion of merely subsisting as a "zombie" or "on autopilot," with no real sense of agency, as they contrasted their past depressive experience with recovery. Like Lance, Zach also described emerging from such a state using the language of hope and purpose. Faced with a decision in the past, he would mechanistically resort to fatalism or ruminate about

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[3] Of note, metacognition and higher-order reflection are some of the first cognitive functions impaired under conditions of stress. See for example Reyes, Gabriel, Jaime R. Silva, Karina Jaramillo, Lucio Rehbein, and Jérôme Sackur. "Self-Knowledge Dim-Out: Stress Impairs Metacognitive Accuracy." *PLOS One* 10, no. 8 (2015).

worst-case scenarios. Now, open to greater possibility, he grapples with the novel questions of what his future might look like and how to best be of use:

> Before, I was just trying to survive, and I couldn't think through these things. Yeah, I'd be overwhelmed with fear, stuck going through scenarios in my head of what I would say and how I would say it and how I'd get rejected, and I'd have arguments with imaginary people in my head. That was all before I had my morning coffee (*laughs*). And none of that was real! I couldn't actually take steps to get stuff done. Now it's more like, career-wise, do I want to speak to people about my experience and hope to benefit others? Or I started taking classes in math to see if school was an option. I passed with an A-, so that was pretty good—way better than my high school math performance. I feel now like a "world's your oyster" type of deal, you know? Like I could be an influencer (*laughs*). Well, maybe not that kind of energy, but I have options, and my task now is to narrow them down to see what might be a good fit.

For Zach and Lance, refractory depression precluded certain forms of cognition, narrowing their attention largely to basic bodily needs. They describe their ethical and existential quest for meaning, purpose, and direction as newly available to them with recovery.

Offering a slightly different angle on the topic, Susan resisted the suggestion that her capacity for reflection was ever lost in depression, arguing instead that it was overwhelmingly preoccupied with "survival mode" themes. No longer stuck in compulsive rumination and feelings of guilt, she feels that she has more "mental space" for aspirational thinking:

> Psychiatrist 1: How have your thoughts of guilt and feeling responsible for your depression changed in the past eleven weeks?
>
> Susan: All in all, they're much less since the DBS has been on. I still go there occasionally, but I don't stay as long. It was pretty much a constant state of self-evaluation before. My perception of the world shifts so dramatically when I'm in that place. What I believe is different now is that I'm more able to just turn that off and come back to "It's okay."
>
> Psychiatrist 1: Can you tell me more about the shift in your perception of the world? Does time change in one state versus the other?
>
> Susan: Yes. When I'm really depressed, time is just a promise of more of the same. So, it's an enemy. I don't know if there is a change in my literal perception of the passing of time, but I'm more focused on my internal state, and then it just feels eternal. When I'm feeling better, I think more about the future, and then it's a positive thing, so time is a gift and not an enemy.

> But there’s also an existential thing that’s going on. It’s different from when I’m depressed. I think that what I've been wrestling with most this past month is, “Okay, if I’m going to stick around in this life, what's it going to mean and what's it all about? What am I going to do with the time I have on this earth?” And that’s been weighing on me in terms of time feeling almost like a responsibility now. I don’t know. I think everybody probably wrestles with that.
>
> Psychiatrist 2: How has that fluctuated in the course of your depressive illness? Is it influenced by how depressed you are?
>
> Susan: When I get to thinking that way and I’m depressed, it leads to feeling suicidal. When I get that way and I’m not depressed, sometimes it's like, “Wow, what a gift of life,” but usually it's like, “What am I going to do with it? What am I going to make of it?” I don’t know if my ability to think is influenced by the depression or instead what I do with it is different, you know?
>
> Psychiatrist 2: So, when you’re feeling better, you’re able to ask a question like “What's the meaning of life?”
>
> Susan: Yep, that's it. “What’s the meaning of life?” Yeah. Feel free to insert the answer to that into my brain.

While Lance and Zach depicted their initial recovery in terms of the return of ethical subjecthood, no longer reduced to their bodies as static objects, Susan emphasized more of a shift in subjectivity. The early stages of her recovery felt like a transition away from hopeless, helpless, endless guilt and toward a more active and empowered experience of possibility. In both cases, the phenomenology of recovery was increasingly dynamic and hopeful, allowing for teleological questions to be felt as newly pressing. Even if they never arrive at the “meaning of life,” patients progressively discover more meaning *in* life.

Returning to Betty’s preparation for her daughter’s wedding, two weeks after surgery she had an experience that neatly illustrates this phenomenon with a concrete example:

> Betty: I wake up with no dread, looking forward to the day, feeling free of depression. I’m not obsessing about myself. I’m more into what’s going on around me—things and people. You know, wanting to talk to people, getting out, going in stores… Before, I didn’t even want to step foot into a store. A store just meant stuff, too many choices. I just didn’t want to go in. But now I go, usually for a certain thing, kind of on a mission. Like we were looking for a shirt to get for our grandson, so we went to the mall.

> Psychiatrist 1: You said you feel free of depression—what's gone now? Is there anything in its place?
>
> Betty: The dread is gone. I used to dread everything. And in its place is hope. Lots of possibilities, like what I can read or do—time isn't just dragging anymore, the day is passing like it should.
>
> Psychiatrist 1: How are you spending your time now? What's your day like?
>
> Betty: Every day's been a little different. I've been spending time on Facebook or texting friends.
>
> Psychiatrist 1: Okay, so sitting here now today, what still needs to get better? What things are not yet where they should be?
>
> Betty: Um, decision-making. I think that the decision-making is going to take a while, because I have not made choices for a long time.
>
> Psychiatrist 1: How does that play out for you? What's the impediment?
>
> Betty: Here's a good example: Our daughter is getting married, and she's gonna wear my mother's pearl necklace, so I wanted to get her a pearl bracelet to go with it. I started looking online and got more and more confused, because I found out it's not that simple. There are different types of pearls, and I wanted these to match. So now I need to find a reputable jewelry store, because I wouldn't know the difference between the types and what's real and not real. Initially I wanted to deal with it like I would in depression and just shut down and block it out, but there's a new frustration and feeling that I wish I had more knowledge about it. And the feeling of doing something for her is giving me great satisfaction, whereas my goal earlier was just to be at the wedding. Now I want to be joining in her joy and hopefully giving her some joy. But to accomplish that means I've got to make some choices.

Betty's experience of DBS was unique in that she felt radically improved, "free of depression," after the surgery, a far more pronounced initial response than is typical. The device had been turned on as part of the intraoperative procedure, but for the next month it remained off. Nonetheless, in her first interviews following implantation, she declared herself to be fully cured. However, even with her seemingly miraculous enhancement of mood and motivation, she still recognized that there were long-term concerns in need of address. She had to shape, with practice and intention, her decision-making skills. Here, she begins to experience a source of direction—the desire to bring joy to her daughter on her wedding day—and the smaller steps to realize that goal are giving her a hard time. Once again capable of perceiving diverse affordances as salient, patients must establish new patterns of response to them in light of their values, prioritizing certain desires and overcoming others. Betty's long-term efforts to cultivate this restored capacity for autonomy required extensive, sometimes heated negotiation with loved ones, especially her husband, as we will explore in Chapter 6. With the DBS in place, she pursued certain desires in ways that proved disruptive to their shared routine. Even in this limit case, where the DBS initially functioned most "like a light switch," as Betty put it, the new motivation to act according to various impulses must be managed wisely. This requires some degree of higher-order ethical thought, in coordination with others and informed by the demands of one's circumstances. More on what this looks like in practice in the coming chapters.

Identity and Authenticity

DBS patients' attempts to responsibly manage their new motivations always involved reference to life narratives, as they sought to make specific choices intelligible and in line with overarching sources of direction. They understood the cultivation of autonomy to be a project of self- or identity-formation, navigating the gap between who they are and who they ought to be. For example, Susan captured the ethical and existential quest that underlies recovery as follows:

> This is going to sound cheesy, but I feel like I'm growing through this in a way that I couldn't before… It's good to feel not-depressed, but there's also something profound about it. I think it's also just related to who I am. Like, who am I if I'm not depressed? There's an opportunity to kind of create something new.

She later added:

> I don't feel bad. But I don't know what it is that I do feel. And that's okay, but there's like a blank void where the depression was, and a whole richness of life that's out there that I feel like I can experience now. It's like both empty and really, really full at the same time. And I'm just kind of figuring out where I am in all that. I'm trying to be patient about what I ought to be doing, because I'm not sure what it is.

After escaping from the cognitive rut of "survival mode," this question of "what I ought to be doing" becomes central to the process of recovery for DBS patients. It signifies a shift that patients experience in thinking about their therapeutic goals. While many of them start the process desperate for the relief of suffering, they soon discover that *freedom from* suffering subsequently entails *freedom to* pursue higher aspirations, to define themselves with reference to a source (or sources) of purpose and meaning. Either they find themselves asking what choices they should make in light of who they are, or they begin to question who they are in light of their new impulses. With most patients, the two questions impinged on one another iteratively, in something of a hermeneutic circle. Thinking through these questions, patients often vacillated between insisting that their "core identity" had not been changed by DBS and considering ways in which they were "a different person" thanks to the device. These conceptual shifts were rarely couched in metaphysical, strictly logical, or even necessarily consistent terms.[4] Rather, they typically arose as part of the practical need to cope with concrete situations and specific moments on their recovery journey.

Like Susan, patients commonly addressed these existential questions with reference to their "authentic" or "true" self. Again, this notion of "self" was not necessarily treated in the sense of a metaphysical entity, but as a phenomenological experience of being a stable center of experience. Whether that self was understood to be authentic depended on its feeling in tune with the world and with a sense of direction that made experience intelligible and meaningful. Oftentimes, patients assessed this authenticity by drawing upon their personal narratives and history. We have seen several examples already: Betty and her husband expressed their gratitude that she was back to being her old sociable self, and Lee monitored his progress in terms of his restored playfulness. We

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[4] It is also important to note that this included freely moving between terms like "authentic self" and "identity," without feeling the need for strict definitions. For this reason, I also treat such terms as basically synonymous, despite some of the bioethics literature emphasizing the importance of drawing distinctions between them, as discussed in the Introduction.

also discussed the discordance of Susan's chattiness relative to her past self. In the abovementioned process of "waking up" to his new reality, Lance suffered a crisis of identity as he reflected on the years lost to his illness. Despite numerous indicators of improvement, including a wider emotional range and a greater capacity for physical activity, he still claimed to be depressed because he could not muster the motivation to participate in certain of his old hobbies.

> Lance: I don't really care about golfing or skiing or boating. I just don't want to do them like I used to. They seem more like a chore than enjoyment. I've never really thought about this until now, but growing up poor, I never really got to do these things, and so as an adult I never really got good enough at them to just let go and enjoy them. I think I've had, unfortunately, a misspent investment in what I thought made me happy versus what really does. I haven't figured out what really does yet, I don't think. I mean simple things like, "Do I want to go spend time with my son next week?" Very much. Very much. Yeah, that's just a natural thing I used to enjoy, even if a year ago I wouldn't have. Teaching my grandkid football? Yes. I like coaching him. But it's funny, I used to like to drive the snowmobile and the motorcycle, and I don't care about that. I used to like golf, even though I sucked at it. And, again, it's odd to me, but I'm always up for going to a movie now. I really enjoy movies, and I like to go.
>
> Psychiatrist 1: As we've been talking, it sounds to me like some of the things that you do not want to do are things that you're not sure that you actually ever liked.
>
> Lance: Good point. I didn't even think of that before today. I guess I'm troubled—and I don't want to be, like, boasting—but people used to really like it when I would come along to all those things. I used to be kind of a badass, and people expected me to be fun. But I just don't want to do that stuff anymore, and looking back, I recoil a little at the thought of trying to be that way again.
>
> Psychiatrist 2: Making you a badass isn't necessarily one of our treatment goals (*laughs*).
>
> Lance: (*Laughs*) But I'm troubled because I want to be a badass again! But also, I don't know… maybe the only part of golf that I actually liked was spending time with my son.

As Lance began to find pleasure in activity, he discovered that many of the hobbies that he previously had used to distinguish himself, like golf and skiing, remained surprisingly unappealing, and he was faced with the question of why that would be the case. Over the course of this interview, he struggled with his identity as he considered the possibility that his participation only ever amounted to a value-signaling and approval-seeking performance. He worried that he might have convinced himself at the time that he enjoyed being a "badass" in front of other people even though that identity did not actually conform to his deepest held values. With guidance from the psychiatrists, he would then consider the possibility that in the future he might enjoy golfing in different circumstances that allowed him to truly "let go," playing with loved ones and without the need to maintain a persona. Ultimately, he concluded, it was relationships with family that were most significant, enjoyable, and genuinely motivating. The steps he took in subsequent weeks and months further cemented his commitment to these relationships over past "superficial" pursuits, as I will detail in Chapter 5. He accepted the opportunity to reinvent himself in a way that he considered "healthier" and more reflective of his highest priorities and his true self. He decided that "family man" suited him better than "badass" when it came to answering his "huge questions."

Other patients looked more to the future as they considered the ongoing authoring of their personal narratives of identity. This was especially true of the younger members of the cohort, who had fewer pre-depression reference points in their past. Zach suggested that a pragmatic and aspirational approach to identity directly informs his decision-making:

> Zach: For me to take an action and believe that it reflects the real me or not comes down to the question of "How do I want to live?" You know, if I do this the way I used to, then I'm gonna get the results that I used to get, and I don't want to get those results anymore. If I'm feeling like I want to sit in my room and not talk to people and not engage in life—and I still have those feelings sometimes—I kind of play the tape forward and think about how, whenever I do that, I don't feel good or feel better; I actually feel worse and beat myself up over it. So I think about maybe choosing instead to meditate for 30 minutes or even 10 minutes or take a 30-minute nap and be honest about it and set a reminder to reach out to someone afterward to get out of my head or maybe do something around the house, anything really, and that usually helps. Before I perform an action, I just go, "Is this what I want to do? Is this how I want to live?"
>
> KWD: It sort of sounds like you're saying the "real you" is the you that you aspire to be?
>
> Zach: Absolutely.

Zach explained that thinking in terms of practical cause-and-effect aimed at the cultivation of virtuous character and healthy relationships allowed him to use an ideal self as a standard against which to evaluate his everyday choices.[5] He too conceptualized his identity in ethical terms, as a source of orientation and accountability. Like Lance, he also shared that loving relationships are the primary arena where he comes in contact with his values, the needs of others informing his personal decisions. As he stated in the excerpt that opened this chapter, in contrast with his priorities when subject to "survival mode," being there for others now "*is* [his] survival." He went on in that interview to add that the vocabulary, ritual, and general practice of religion help him to learn about and embody those ethical values. His Catholic faith functions as a complementary resource for understanding himself and his aspirations. In Chapter 6, we will focus more on the role of such practices in developing one's beliefs and shaping one's autonomy.

To close this discussion of ethics and identity, we turn now to a specific trajectory defined by some patients' evolving conceptualizations of self. As we saw above, early in the protocol, Susan confronted, with hopeful anticipation, the question of who she is without depression and what she should be doing with her life. She was understandably disoriented, given the liminal state of her identity at that point. Months later, she would engage more playfully with this liminality as she grew to appreciate the relevance of certain concepts from the Buddhist tradition:

> Psychiatrist 2: Did DBS change you?
>
> Susan: There is no me (*laughs*). There's no self, really. I'm always changing, and I don't know that there's a constant me. I think DBS has changed my life in that I'm living, and I want to live now.

In her follow-up interview, after eight years of successful DBS, her affinity for Buddhist values continued to crop up, but she insisted now on a more settled perspective on her identity:

> I'm the same person. Who I am has not changed. I would say that my ability to live in the world and outside myself has changed. But I have not changed in terms of who I am. Depression itself limited my ability to connect with people around me, with the world, and to engage with people in a way that let me be who I am now. DBS has not changed that, but the absence of depression

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[5] For a philosophical account of such "proleptic" reasoning and "aspirational agency," see Callard, Agnes. *Aspiration: The Agency of Becoming*. New York: Oxford University Press, 2018: 221.

> certainly has, and I fully attribute the absence of depression to DBS. So that ability to engage with people has really, I think, helped me grow as a human being in a way that may have been stalled because of depression… My sense of purpose has always been to not cause harm to other people and to maybe make a positive difference in the world. I'm not a religious person, but I relate to the Buddhist philosophy in terms of meaning and purpose in life.

Julie followed a very similar path. At first, she described emerging from depression as thawing out from a frozen state into a more kinetic, but nebulous and unfamiliar, confusion. Recovery for her, then, required deciding what aspects of her identity needed to re-solidify. In an early exchange with the psychiatrists, she expressed the fears that go along with "identity formation," as she contemplated the perennial question of art and suffering:

> Julie: Depression has been familiar for me for so long. It's like my old drinking buddy that I'm so used to. And with that changing, it changes everything, and it's kind of scary.
>
> Psychiatrist 1: Is some part of the fear about who you are as a not-depressed person?
>
> Julie: Oh yeah! I think it goes all the way down to, like, everything. Even to the music I play (*laughs*). But I can see where I can pull things out that were a part of my character with the depression and separate them and say, "That's not who I am." But, you know, I don't have to be depressed to play a certain kind of music. And being empathetic and compassionate towards other people doesn't require that low feeling—to be able to listen and hear them.
>
> Psychiatrist 1: Meaning you can express sadness or understand pain without being the sadness or the pain?
>
> Julie: Yes. Yeah. And I think that that's part of the wisdom that I'm learning I may have had all along without fully trusting it. So I think it's going to be a very long good-bye with this treatment with all the positive things in my character growing and solidifying and just nudging away the depression. Being so bad that I was in the hospital is familiar—I never will forget it—but it doesn't feel as close anymore, like it's an imminent possibility. DBS made this possible, giving me that sensation that I can't describe where the world is just more open, and I think my daily practices are helping to make it more real and solid.

In a later interview, with Kate's affirmation, she would focus more on the continuity of her identity, invoking the more mystical concepts of "inner core," "spiritual self," and "deepest soul":

> Julie: My inner core has not changed… it was always there, but the depression definitely affected how I am in the world. Giving to others has been my sense of purpose always, but depression kept me from realizing it, from connecting with people at all. I'm in touch now with my core, my inner spiritual self, enough to know in my deepest soul that I need to be of service.
>
> Kate: I totally agree with every word you said. You never changed as a person; it's just the interface with the world that changed.

Some patients looked more to their past, while others imagined a better future in the process of thinking through questions of identity and what they ought to be doing with their lives. Some conceptualized their recovery with a focus on how much they have changed for the better, while others emphasized that their recovery reflected the restored ability to enact longstanding, unchanged values. Ultimately, though, nobody restricted themselves to just one or another of these framings. Each patient, depending on the context, engaged at least somewhat with all of them. Regardless of which they tended to prefer, though, a distinct pattern did arise, cutting across all of these narratives. Patients (and loved ones) described their defining characteristics—those that most represent their essential, "true," "authentic" identity—in ethical terms.[6] According to these interviews, patients' sense of self depends most fundamentally on how they relate and respond to other people.[7] As they evaluate the effects of DBS, deciding 1) whether or not it has changed them as a person and 2) whether or not to characterize its effects as a successful therapeutic outcome, patients universally refer to their way of responsibly sharing the world with others. Just as the inability to connect with others was widely described as the "absolute worst symptom" of depression, so too is the restored ability to connect with others experienced as the most important sign of recovery. It is what provides patients with direction and purpose. As patients update their

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[6] This finding has been replicated experimentally: Strohminger, Nina, and Shaun Nichols. "The Essential Moral Self." *Cognition* 131, no. 1 (2014): 159–71.

[7] This phenomenon has recently surfaced in predictive processing discussions as well. Anil Seth writes: "the higher reaches of selfhood… might necessarily require a social context. If you exist in a world without any other minds—more specifically, without any other *relevant* minds—there would be no need for your brain to predict the mental states of others, and therefore no need for it to infer that its own experiences and actions belong to any self at all." (*Being You*, 175.)

definitions of what wellbeing and autonomy should look like, they do so always with an eye to ethics.

…and Responsibility

Keeping these thematic findings in mind, we can again turn to resonances in the writing of Emmanuel Levinas to help us learn from the DBS patients' phenomenological experiences. In the last chapter, we saw that Levinas's notion of "sensibility" was useful for understanding patients' fundamentally affective relationship with the world. We are now prepared to examine the heart of his ethical phenomenology, the encounter between self and other. The parallels between his evolving concept of "transcendence" and DBS patients' accounts of recovery are particularly striking. This is one of the concepts that scholars most associate with his radical ethics of "infinite responsibility," often treating it in isolation from his more traditionally phenomenological analysis of sensibility.[8] However, his "fundamental re-founding of phenomenology" in ethics is necessarily grounded in this prior affectivity.[9] It is only intelligible for sensitive, embodied creatures: "Egoism, enjoyment, sensibility, and the whole dimension of interiority—the articulations of separation—are necessary for… the relation with the Other which opens forth from the separated and finite being."[10] The individuation of the self in sensibility is the condition for the encounter with the other (and, through them, with the transcendent).[11] In short, one must be appropriately sensitive in order to see another's face or hear their cry.

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[8] Levinas, *Totality and Infinity*, 245. Many scholars narrow their discussions of transcendence in Levinas to his account of "the face" when, in fact, the concept is further developed not only later in *Totality and Infinity* but also and especially in *Otherwise Than Being*. For a thorough account of this development, see Giannopoulos, Peter J. "'Levinas's Philosophy of Transcendence.'" In *The Oxford Handbook of Levinas*, edited by Michael L. Morgan, 219–42. New York: Oxford University Press, 2018.

[9] Hand, Seán. *Emmanuel Levinas*. New York: Routledge, 2009: 34.

[10] Levinas, *Totality and Infinity*, 148. Note that throughout his work Levinas is not entirely consistent about when or why he chooses to capitalize the word "other." For the sake of readability, I will not capitalize the word unless it is within a quotation.

[11] Levinas writes, "I approach the infinite insofar as I forget myself for my neighbor who looks at me." in Levinas, Emmanuel. *Collected Philosophical Papers*. Translated by Alphonso Lingis. 1987. Reprint, Pittsburgh: Duquesne

Levinas's discussion of sensibility in *Totality & Infinity* methodologically resembles Husserl's phenomenological reduction to the ego, the substantive difference being that we encounter the world not primordially through intentionality of it but through vulnerability to it. Such an alternative starting point underscores the level at which normativity is first experienced—pre-reflective sentiment. Cognition, for Levinas, always takes place within a web of normative pushes and pulls, rather than preceding or generating them. Moreover, as early as his dissertation, he wrote that the Husserlian type of theoretical reduction "can only be a first step towards phenomenology. We must also discover 'others' and the intersubjective world."[12] Other people are the greatest source of pre-phenomenological normative demands to which we find ourselves subject. Grasping this reality depends upon a receptivity that he views Husserl's account as lacking. While the strategy of classical phenomenology is to investigate one's own experience for resources to understand how others' experiences might be the same, Levinas insists that, to the contrary, learning can only take place across difference. The self cannot transcend subjectivist epistemology or hedonist morality on its own. The "closedness of the separated being must be ambiguous enough," Levinas explains, that it both preserves one's stability as a discrete and continuous self and remains open to the influence of what he calls "heteronomy"—that something beyond "that incites to another destiny than this animal complacency in oneself."[13] As sensible beings with porous borders, we are susceptible to an encounter with the face of another person who calls us to account for ourselves and opens our eyes to reality and to our responsibility.

Examining the contours of Levinas' evolving concept of "transcendence" will help us see what exactly he means by this. Transcendence is treated in two main ways in Levinas's oeuvre. We

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University Press, 1998: 72. In a more explicitly religious context, he writes that "through my relation to the Other, I am in touch with God" in Levinas, Emmanuel. "'A Religion for Adults.'" In *Difficult Freedom: Essays on Judaism*, translated by Seán Hand, 11–23. 1957. Reprint, Baltimore: Johns Hopkins University Press, 1990.

[12] Levinas, Emmanuel. *The Theory of Intuition in Husserl's Phenomenology*. 1963. Reprint, Evanston: Northwestern University Press, 1995: 150.

[13] Levinas, *Totality and Infinity*, 148-149.

might call the earlier treatment *transcendence-of-immanence* and the later *transcendence-in-immanence*.[14] Beginning with the former, found especially in his youthful writings and more directly responding to his philosophical predecessors, Levinas's account of transcendence largely emphasizes freedom *from* the self or ego.[15] His earliest original essay, *On Escape*, for instance, shows Levinas beginning to struggle against Heidegger's totalizing ontology by examining the ways in which being, or embodied existence, is oppressive, amounting to what he labels the "enchainment" of the I to itself.[16] Being is itself experienced as "an imprisonment from which one must get out."[17] In a phenomenological analysis of nausea, he describes an experience of "pure being" that sounds nearly identical to DBS patients' experiences of refractory depression:

> [N]ausea posits itself not only as something absolute, but as the very act of self-positing: it is the affirmation itself of being. It refers only to itself, is closed to all the rest, without windows onto other things. Nausea carries its center of attraction within itself. And the ground of this position consists in impotence before its own reality, which nevertheless constitutes that reality itself. Therefore, one might say, nausea reveals to us the presence of being in all its impotence, which constitutes this presence as such. It is the impotence of pure being… our powerlessness to take leave of that presence.[18]

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[14] Labeling them in this way is based on Bettina Bergo's terminology from her entry on Levinas in the Stanford Encyclopedia of Philosophy: Bergo, Bettina. "Emmanuel Levinas." Edited by Edward N. Zalta. *Stanford Encyclopedia of Philosophy*, 2019.

[15] Levinas rapidly shifts between the language of escape from "being," "self," and "ego," in ways that can be confusing; he seems at times to be describing one and the same phenomenon and other times overlapping categories.

[16] Levinas, Emmanuel. *On Escape*. Translated by Bettina Bergo. Stanford: Stanford University Press, 2003: 55.

[17] Levinas, *On Escape*, 55.

[18] Levinas, *On Escape*, 68.

While sensibility at its best is experienced as dynamic enjoyment, it can instead be felt as static and suffocating when there is diminished sensitivity to that which is beyond the borders of the self.[19] Trapped in the self, whether due to "nausea" or severe depression, one is impotent to effect any kind of meaningful change. Humans need adequate access to an exteriority "beyond being" to achieve critical distance for reflection and to demand better than the immanent status quo.[20] We rely on receptivity in order to learn, grow, and attune to the world. We need to be able to escape the self.

This *transcendence-of-immanence* is occasioned by the presence of another person, thematized by Levinas in terms of an encounter with the other's face. Recall that it is at the level of sensibility that this encounter occurs. Like the pre-encounter ego, though, "the vision of the face is not an experience," he explains; it is not an object of intentionality or perception.[21] While the encounter "can surely be dominated by perception," the face "cannot be reduced to that."[22] To reify it as an object of intentionality, according to Levinas, would be to confine it to one's prior

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[19] See also, from his middle writings, Levinas's phenomenology of "insomnia" in *Existence and Existents* where he similarly describes the oppressiveness of being and the reduction of capable subject into near object, unable to rescue itself from itself (Translated by Alphonso Lingis. 1947. Reprint, The Hague: Martinus Nijhoff, 1978: 65-66). For further development of the theme of isolation in the self in his later writings, see Levinas's essay "Useless Suffering" in *Entre Nous*, translated by Michael B. Smith and Barbara Harshav, 91–102. New York: Columbia University Press, 1998.

[20] A few pages later, in what can clearly be read as a swipe at Heidegger, Levinas scales his claim up to the level of politics, writing that, "Every civilization that accepts being—with the tragic despair it contains and the crimes it justifies—merits the name 'barbarian.'" (*On Escape*, 73.)

[21] Levinas, Emmanuel. "Ethics and Spirit." In *Difficult Freedom: Essays on Judaism*, translated by Seán Hand, 3–10. 1957. Reprint, Baltimore: Johns Hopkins University Press, 1990: 10. Indeed, in *Totality and Infinity*, he writes "the whole body—a hand or a curve of the shoulder—can express as the face" (262).

[22] Levinas, Emmanuel. *Ethics and Infinity: Conversations with Philippe Nemo*. Translated by Richard A. Cohen. Pittsburgh: Duquesne University Press, 1985: 86. Just as we saw the pre-encounter ego is not phenomenologically accessible, this is another way in which his thinking is "quasi-phenomenological," relying on transcendental arguments to describe the conditions for phenomenological experience. Michael L. Morgan defines these elements of Levinas's work as "quasi-phenomenological" in Morgan, Michael L. *Discovering Levinas*. New York: Cambridge University Press, 2007: 154. Similarly, Simon Critchley writes "Levinas's big idea about the ethical relation to the other person is not phenomenological, because the other is not given as a matter for thought or reflection… Therefore, Levinas maintains a methodological but not a substantive commitment to Husserlian phenomenology" in Critchley, Simon. "Introduction." In *The Cambridge Companion to Levinas*, edited by Simon Critchley and Robert Bernasconi, 1–32. New York: Cambridge University Press, 2002: 8.

categories, imposing one's mental models, rather than letting it produce a change in oneself.[23] Rather, the face speaks: "to see a face is already to hear 'you shall not kill.'"[24] The other's presence is felt first as a command to attend to the needs of someone other than oneself:

> I think that the beginning of language is in the face. In a certain way, in its silence, it calls you. Your reaction to the face is a response. Not just a response, but a responsibility. These two words [*réponse, responsabilité*] are closely related. Language does not begin with the signs that one gives, with words. Language is above all the fact of being addressed.[25]

The primary relation to the other is "language" or "expression"—being spoken to in a way that overflows prior concepts and images and calls the ego into question.[26] In being addressed, the other person's alterity, "infinitely transcendent, infinitely foreign," wakes us up to reality beyond ourselves.[27] This relation means also, therefore, to be taught: "Teaching is not a species of a genus called domination, a hegemony at work within a totality, but is the presence of infinity breaking the closed circle of totality."[28] The unassimilable other frees us from ourselves, as we "*receive* from the

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[23] Levinas, *Totality and Infinity*, 297. See also Levinas, *Totality and Infinity*, 46: "Thematization and conceptualization, which moreover are inseparable, are not peace with the other but suppression or possession of the other."

[24] Levinas, "Ethics and Spirit," 8. Note that the other person does not *say* "you shall not kill"; the other person's presence conveys that that message by pulling us out of the first-person perspective into the second-person perspective, answerable, accused. The face of the other awakens us to the order of meaning.

[25] Levinas, Emmanuel. "The Paradox of Morality: An Interview with Emmanuel Levinas." In *The Provocation of Levinas: Rethinking the Other*, edited by Robert Bernasconi and David Wood, 168–80. New York: Routledge, 1988: 169-170.

[26] Levinas, *Totality and Infinity*, 297. Language, for Levinas, demonstrates the ethical conditions for subjectivity and intersubjectivity: "Should language be thought uniquely as the communication of an idea or as information, and not also—and perhaps above all—as the fact of encountering the other as other, that is to say, already as response to him? Is not the first word *bonjour*? As simple as *bonjour*. *Bonjour* as benediction and my being available for the other man. It doesn't mean: what a beautiful day. Rather: I wish you peace, I wish you a good day, expression of one who worries for the other. It underlies all the rest of communication, underlies all discourse" (*Is It Righteous to Be?*, 47.) Elsewhere he writes, "the essence of language is friendship and hospitality" (*Totality and Infinity*, 305.).

[27] Levinas, *Totality and Infinity*, 194.

[28] Levinas, *Totality and Infinity*, 171.

Other beyond the capacity of the I."[29] Not simply rearranging concepts and categories that we already contain, the encounter gifts us something novel. Levinas calls this "the production of meaning."[30] Elsewhere, he also describes it as "the beginning of intelligibility."[31] Thus, when he invokes "the face," Levinas refers not to physiognomy, but to "the epiphany of what can thus present itself directly, and therefore also exteriorly, to an I."[32] Only in relation to otherness are we in a position to transcend, update, and develop our mental models, making them more responsive to the complexities of a pluralistic world.[33] As he writes, "truth is made possible by relation with the Other."[34] The origins of "objectivity" lie in this relationality.[35]

Relationality, the epiphany of the face, introduces not only new categories for understanding but also a new layer of normativity, beyond the base motivations to consume and enjoy. According to Levinas, we are pulled out of ourselves and into higher-order reflection by the other's presence and needs. Transcending what currently "is," the question of "ought" arises. If the initial precipitation of a separate self occurs in sensibility, then the encounter with another person represents a "radical breakup" of this self in subjectivity.[36] Never adhering too strictly to his terminological distinctions, Levinas describes the rupture as developing between "the me" (*le moi*) and "the self" (*le soi*).[37] The ethical encounter, he writes, "detaches the me from its self," providing a

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[29] Levinas, *Totality and Infinity*, 51.
[30] Levinas, *Totality and Infinity*, 66. This is in contrast to Plato's notion of "anamnesis," a notable divergence from Plato's influence.
[31] Levinas, Emmanuel. "Philosophy, Justice, and Love." In *Entre Nous*, translated by Michael B. Smith and Barbara Harshav, 103–21. New York: Columbia University Press, 1998: 103.
[32] Levinas, *Collected Philosophical Papers*, 55. Consider also that Levinas writes that "the whole body--a hand or a curve of the shoulder--can express as the face" (*Totality and Infinity*, 262).
[33] Hilary Putnam writes, "In Levinas's phenomenology, not to have entered the ethical life, not to have been 'obsessed' by 'the height of the other,' is to be trapped within one's own ego. Without ethics one cannot even enter into the world, in this picture" (Putnam, Hilary. *Jewish Philosophy as a Guide to Life: Rosenzweig, Buber, Levinas, Wittgenstein*. Bloomington: Indiana University Press, 2008: 96.)
[34] Levinas, *Totality and Infinity*, 72.
[35] Levinas, *Totality and Infinity*, 210. On ethics and epistemology in Levinas, see: Crowell, Steven. "Why Is Ethics First Philosophy? Levinas in Phenomenological Context." *European Journal of Philosophy* 23, no. 3 (2015): 564–88.
[36] Levinas, Emmanuel. *Existence and Existents*, 85.
[37] It is beyond the scope of this project to delineate the exact distinction between these two terms as they appear in Levinas's work. What matters here is simply the fact of duality—that a gap exists due to the presence of another and that the subject is faced with the challenge of navigating that gap in terms of accountability and responsibility.

way out of the oppressive totality of being.[38] This form of transcendence (referred to with the neologism "excendence" in his earliest works) destabilizes the settled, familiar, thoughtless self and induces attention to and consciousness of one's "infinite responsibility" for the other.[39] We do not choose this responsibility; we find ourselves chosen, "elected."[40] One cannot avoid responding.[41] Less tightly riveted to ourselves, we are then capable of stepping back and evaluating the extent to which we are as we ought to be: "It is only in approaching the Other that I attend to myself."[42] Recognizing the other's hunger, the question becomes: Do I continue to enjoy my bread, or should I give it to the person before me?[43] Reason, too, for Levinas, has its origins in the demand for ethical response, especially as I am forced to weigh the claims of multiple others (not only the other before me, but also "the third"), an exercise in what he refers to as "justice."[44] Having been drawn out of the naïve hedonism of sensibility, transcendence provides us with an autonomy based in the navigation of that gap between who I am and who I ought to be, between ontology and ethics, between the need for a continuous stable self and the need for openness to otherness. The presence of the other orients us toward the good.[45]

For a full treatment of this distinction see Bernasconi, Robert. "'Subjectivity Must Be Defended': Substitution, Entanglement, and the Prehistory of the Me in Levinas." In *The Oxford Handbook of Levinas*, edited by Michael L. Morgan, 259–78. New York: Oxford University Press, 2019.

[38] Levinas, *Existence and Existents*, 90.

[39] Levinas, *Totality and Infinity*, 245.

[40] Levinas, *Totality and Infinity*, 245.

[41] Even to not respond is itself a choice, a response.

[42] Levinas, *Totality and Infinity*, 178. Likewise, Levinas writes that through the encounter, "I see myself *obligated* with respect to the Other" ("A Religion for Adults," 21-22). Note that some DBS patients exemplified this capacity to detach from the self by relating in the course of treatment to their body, brain, and/or soul as other or non-self.

[43] Levinas, *Totality and Infinity*, 75.

[44] Levinas, *Totality and Infinity*, 213. The claims of the third, requiring justice, pulls us even further, from the second-person POV to the third-person POV. Higher-order reasoning (comparing, contrasting, categorizing) is only possible because of the second-person ethical encounter in which comparison and categorization is not possible.

[45] He writes, "The goodness of the Good—the Good which never sleeps or nods—inclines the movement it calls forth, to turn it from the Good and orient it toward the other (*autrui*), and only thus toward the Good… He does not fill me up with goods but compels me to goodness, which is better than goods received." in "God and Philosophy." In *Emmanuel Levinas: Basic Philosophical Writings*, edited by Adriaan Peperzak, Simon Critchley, and Robert Bernasconi, 129–48. Bloomington: Indiana University Press, 1996: 141.

In his later, more revolutionary works, the concept of transcendence is leveraged to fundamentally reimagine subjectivity itself. Moving beyond the temporal framing in which the other disrupts my enjoyment and draws my attention, Levinas now more clearly posits that this disruption has always already occurred, "the trace of an immemorial past."[46] Not entirely discontinuous with his earlier account, transcendence attains a less ontological and more thoroughly ethical meaning as we see how the self is suffused with transcendence from the start—"I am bound to others before being tied to my body."[47] Here, one is compared to a lung that depends upon air from the outside, inspiration of the other "continually splitting up" the substantive self with each breath.[48] This cycle is also compared to the systole and diastole of a heart, with ethical demands "overflowing my being" and repeatedly subverting not only my mental categories but even my identity.[49] *Transcendence-in-immanence* here "can be compared to the continual sallies of an 'I' which loses itself and then diligently reconnects the metaphoric ends of its torn fabric," as Levinas scholar Bettina Bergo clarifies.[50] The later Levinas theorizes subjectivity in a way that distinguishes him from most of the Western tradition, with its emphasis on relations of knowledge and mastery issuing from a unified individual.[51] For Levinas, I am only "in myself" through others.[52]

Elaborating on this later account of transcendence, Levinas ties it to the concept of "substitution," which refers to the way that the self is constituted as a being-for-the-other.[53]

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[46] Levinas, Emmanuel. *Humanism of the Other*. Translated by Nidra Poller. Chicago: University of Illinois Press, 2006: 54. This shift in emphasis is already present in *Totality and Infinity*, with Levinas's discussion of "fecundity" in the section aptly titled "Beyond the Face."

[47] Levinas, *Otherwise Than Being*, 76.

[48] Levinas, *Otherwise Than Being*, 107.

[49] Levinas, *Otherwise Than Being*, 109.

[50] Bergo, Bettina. *Levinas between Ethics and Politics: For the Beauty That Adorns the Earth*. Dordrecht: Springer, 1999: 152.

[51] See Bernasconi, Robert. "What Is the Question to Which 'Substitution' Is the Answer?" In *The Cambridge Companion to Levinas*, edited by Simon Critchley and Robert Bernasconi, 234–51. New York: Cambridge University Press, 2002: 237-238.

[52] Levinas, *Otherwise Than Being*, 112.

[53] Admittedly, Levinas scholar Robert Bernasconi also suggests that "There are times when one wonders if the question to which 'Substitution' is the answer is not 'what is the most obscure philosophical concept of the twentieth century?'" ("What is the Question…," 238.)

Identity—the "uniqueness of the I"—is not an ontological feature of the body or the mind but an ethical category, "the fact that no one can answer for me."[54] Whereas transcendence-of-immanence primarily referred to *freedom from* being, transcendence-in-immanence corresponds to our positive *freedom to*. It reflects a source of direction grounded in one's obligation to others that makes subjectivity possible and intelligible. This is also why the language used to characterize sensibility changed over Levinas's life, as we saw in the last chapter, from enjoyment and contentment to exposure, proximity, and vulnerability: "passivity more passive than all patience, passivity of the accusative form… all this is the self, a defecting or defeat of the ego's identity."[55] In this later formulation, I only exist in the first place as affected and elected by the other. "To be a 'self,'" he writes, "is to be responsible before having done anything."[56] Ethical relationality becomes for Levinas the defining condition of human experience on which all elements of consciousness are scaffolded.[57] My abilities to perceive, choose, and act all emerge out of a prior heteronomy, "commanded at the outset."[58] The key claim of Levinas's ethical phenomenology is that subjectivity simply is responsibility[59]:

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[54] Levinas, Emmanuel. "Meaning and Sense." In *Emmanuel Levinas: Basic Philosophical Writings*, edited by Adriaan Peperzak, Simon Critchley, and Robert Bernasconi, 33–64. Bloomington: Indiana University Press, 1996: 55.

[55] Levinas, *Otherwise Than Being*, 15.

[56] Levinas, Emmanuel. "Substitution." In *Emmanuel Levinas: Basic Philosophical Writings*, edited by Adriaan Peperzak, Simon Critchley, and Robert Bernasconi, 79–96. Bloomington: Indiana University Press, 1996: 94. This essay would go on to be the culminating chapter of *Otherwise Than Being*.

[57] "Moral consciousness is thus not a modality of psychological consciousness, but its condition," he writes in "Signature." In *Difficult Freedom: Essays on Judaism*, translated by Seán Hand, 291–95. 1957. Reprint, Baltimore: Johns Hopkins University Press, 1990: 293.

[58] Levinas, "Philosophy Justice and Love," 111. In a chapter on Levinas, philosopher Susan Bredlau, writes: "This, then, is the ultimate weight of the phenomenological description of the experience of others: it is phenomenology that precisely gives us the resources to look beyond the simple, 'melodic' terms of our familiar descriptions of the world to see the nonreflective ethical commitments that are definitive of the formative intersubjective bonds that are the implicit meaning of all of our perceptual life." (*The Other in Perception: A Phenomenological Account of Our Experience of Other Persons*. Albany: SUNY Press, 2018: 96).

[59] Levinas, *Ethics and Infinity*, 95. See also Michael L. Morgan's chapter on "Subjectivity and the Self" in *Discovering Levinas*.

> The subjectivity of the subject, as being subject to everything, is a pre-originary susceptibility, before all freedom and outside of every present. It is accused in uneasiness or the unconditionality of the accusative, in the 'here I am' (*me voici*) which is obedience to the glory of the Infinite that orders me to the other. 'Each of us is guilty before everyone for everyone, and I more than the others,' writes Dostoyevsky in Brothers Karamazov.[60]

In the end, subjectivity means being "subject to," its purpose being to respond well to the demands of our shared reality.

"A New Autonomy"

Having explored Levinas's notion of "transcendence" as well as DBS patients' phenomenological experiences of transcending their egos, we have now arrived at a new understanding of autonomy. As we have seen, severe depression can be described as a lack of receptivity to alterity, manifesting as a feeling of being trapped in "being," "riveted" to the self, with no way to escape one's ego.[61] Lacking the ability to be meaningfully affected by that which is beyond their psychic prison cells, TRD patients' perception, higher-order thought, and sense of purpose are impaired, stuck in "survival mode." This is the opposite of freedom. Autonomy, from a Levinasian perspective, involves being freed from the *conatus*—the drive for mere survival—to think and act in terms of "ought." "Substitution," Levinas writes, "frees the subject from *ennui*, that is, from the enchainment to itself, where the ego suffocates in itself."[62] Freedom, then, is not something that one has; rather, it exists only in relationship—one is freed *by* another.[63] Whereas most moral philosophy conceives of freedom as a condition for responsibility, Levinas inverts the

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[60] Levinas, *Otherwise Than Being*, 156. Note here that "here I am" is a reference to the Hebrew word "*hineni*" spoken by the biblical Abraham in response to God's calling.

[61] Levinas, *On Escape*, 66.

[62] Levinas, *Otherwise Than Being*, 124.

[63] Levinas, *Totality and Infinity*, 206.

relationship. The normative demands placed on us by others are what inspire and orient our consciousness.[64] Levinas scholar Adriaan Peperzak explains that "The autonomy of the human individual is not denied but shown to be demanded by the heteronomy of the metaphysical (or 'ethical') relationship. This constitutes the ego as responsible subject."[65] Autonomy is not a power wielded but a gift received.

With the device taking effect and a wider range of possibilities suddenly available and desirable, DBS patients universally described their social relationships as the primary source of direction for navigating their desires. Their rapidly expanding experience of autonomy illustrated in real time the transition from self-concerned survivalism to other-concerned purpose. Furthermore, as responsible subjects, the identities that they understood to be "authentic" largely emerged out of the narratives that they shared with other people, the ways in which they could now and in the future uniquely contribute to them. As Levinas writes, "The word *I* means *here I am*, answering for everything and everyone."[66] The DBS patients' experiences can be understood to reflect another way in which Levinas's ethical phenomenology corrected his philosophical predecessors. While many patients understandably grieved the time they lost to depression, it was not ultimately seen as a process of coming to terms with the possibility of their own finitude, of "being-toward-death," as Heidegger would have it. Treatment-resistant depression had offered them a lifetime of opportunities to confront their mortality. Rather, the escape from "survival mode" meant that patients now faced the death, suffering, and vulnerability of others. They were now free to care about something other than themselves. Susan may not have discovered the "meaning of life," and the psychiatrists certainly could not upload it into her brain, but she and other DBS patients voiced the intuition that meaning *in* life comes from how we use our time

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[64] Levinas writes that the other "does not limit the freedom of the same; calling it to responsibility, it founds it and justifies it." (*Totality and Infinity*, 197.)

[65] Peperzak, Adriaan T. "Judaism and Philosophy in Levinas." *International Journal for Philosophy of Religion* 40, no. 3 (1996): 125–45: 143.

[66] Levinas, *Otherwise Than Being*, 114.

responsibly in service of others. Philosopher and scholar of Jewish Studies, Michael Morgan, writes in his introduction to Levinas's thought:

> The self as responsibility and substitution is the transcendental condition for meaningful human life, for the ordinary and the everyday as the fabric of social, intersubjective, and interactive human experience. Ethics is the metaphysics of meaningful human existence… my being responsible is what ultimately gives point to my being me at all.[67]

In place of a thin conceptualization of autonomy as self-assertion or even a thicker one of autonomy as situated or relational, Levinas offers us a framing of autonomy as responsible.[68] To be made conscious of our election, "[t]o be aware of it, to be able to say 'I,' is to be born to a new autonomy."[69]

The transition from "survival mode" to ethical responsiveness is not a shift from selfishness to saintliness. Activating the DBS does not in itself make patients happy, healthy, or virtuous people. Rather, alongside the more vivid landscape of sensory affordances, it also expands the landscape of "ethical affordances."[70] In practice, the escape from the ego generates an opportunity. Past ego-protective tendencies and thought patterns remain tempting, but freed from their depressive rut, patients can work hard to capitalize on their opportunity and retrain their habitus in healthier ways. This involves letting their renewed ethical sensitivities guide their developing capacities for perception, desire, reflection, and action. In the next two chapters, we will turn from Levinas and

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[67] Morgan, *Discovering Levinas*, 159.

[68] On the thin conception of autonomy, he writes, "the philosophy which aims to ensure the freedom, or the identity, of beings, presupposes that freedom is sure of its right, is justified without recourse to anything further, is complacent in itself, like Narcissus." (*Collected Philosophical Papers*, 49.)

[69] Levinas, *Is It Righteous To Be?*, 192-193.

[70] Keane, Webb. *Ethical Life: Its Natural and Social Histories*. Princeton: Princeton University Press, 2016: 27.

the pre-phenomenological conditions for autonomy to the thought of Iris Murdoch, who expertly analyzes the ways in which that capacity for autonomy must be cultivated over time.

Chapter 5: "Open Minded" – Attention and Attunement

> Psychiatrist 1: So how have you been?
>
> Lance: Terrible. I don't know what happened, but I was feeling like I had come into remission. I was feeling good. And now I don't know. My son and I had a pretty bad falling out that we've since patched up, I'm frustrated about a project that I've been working on for years that kind of fell through at work, my dog of 14 years died a week ago. For some reason, after saying to myself "I made it," I don't know what happened.
>
> Psychiatrist 1: That's a lot of things to be upset about. I'm sorry for your loss. How was it when you lost your dog?
>
> Lance: Absolutely horrible. She's been there with me so solidly through everything (*chokes up*).
>
> Psychiatrist 1: It looks like you're able to feel sad about that.
>
> Lance: Oh yeah, it's killing me. I've had some good dogs, but she was, um, really different. When I was incapacitated after ECT, she somehow just knew what I needed (*crying*), and never left me. She just wouldn't. She was a special dog. But I was depressed before that happened. I'm sad about that.
>
> Psychiatrist 2: Is there a difference between the sadness, grief, and depression?
>
> Lance: Oh, God, yes. It's as far away as black is from white.
>
> Psychiatrist 2: How can you tell the difference between being sad about your dog's death and depression?
>
> Lance: Depression is a visceral depth. It goes beyond my body and into my soul and my everything. It's just an inexplicable, untriggered, horrible feeling. And sadness is a normal emotion in the emotional spectrum of a healthy mind. It's still, at the end of the day, normal. Depression is completely different. It's not an emotion. It's a crippling of willingness, of a person's willingness to be. You know, even those words aren't saying it, because it's not like, "I'm unwilling." It's like "I can't." It's an absolute cancer on your soul. It's like a bloodsucker that you can't get off you. It's just so persistent. It's the crippling of being able to enjoy anything.
>
> Psychiatrist 2: How would you compare this last couple of months to before you had DBS?
>
> Lance: It's not as bad. It's similar, but it hasn't gone to the depth that it was before DBS.
>
> Psychiatrist 2: The floor is higher?
>
> Lance: Very well put. DBS has established a floor, albeit a miserably low one, but nonetheless a floor where it had previously been bottomless. That's the best way to put it—at least there's a floor. Before surgery, I was almost too numb to cry, too depressed to cry. That's another way to describe the floor—the floor has given me back an ability to actually cry. And losing my dog

> now… It's almost combined with the depression in a way that's hard to describe. My whole awareness and brain feel kind of strange, because that has definitely mixed with the depression.
>
> So, I'm almost contradicting myself in some regard—it's kind of put my depression in a perspective I've never sensed before, and I'm a little confused about it. You know, I used to be able to just tell that I was depressed. It was obvious. But there's a smoke in the room now, and I can't really see it that well. The depression's kind of got a milky quality that it didn't used to have. It used to have a very sharp, uh, sensation. And the sensation is still really bad, but it's kind of milky now, mixing my sadness now in with it. I feel pretty lost. It's just strange. I'm sure that the loss of my dog has changed the sharpness of the depression—not making it any easier, but almost blunting it. It's like a movie monster that's not in full focus.
>
> Psychiatrist 1: This seems new, this ability for the external to in some way make diffuse or blunted that core feeling.
>
> Lance: I don't know. I know where you're going with this—that this might be a sign that I'm actually better, and that may well be true. But even so, the depression I'm feeling is still not acceptable to go on with. So, I see your point that maybe I'm better enough that emotion pierced the bubble of depression that I'd claimed was so separate.
>
> Psychiatrist 1: I appreciate the compliment of the argument you made on my behalf. It was a lovely point. I wasn't going to argue against anything you said, though. I was just going to point out that this might be understood as a positive sign—not that it feels good—but that something is changing and something more could change.
>
> Lance: Yeah, maybe. I suppose.

Up to this point, we have focused primarily on the initial short-term effects felt by DBS patients, as increasingly diverse affordances, sensory and ethical, are perceived as salient. Patients described heightened senses, wider emotional range, increased responsiveness to others, and an enhanced sense of responsibility and meaning. In the last two chapters, we analyzed these changes in conversation with the thought of Emmanuel Levinas and his difficult but generative concepts of "sensibility" and "transcendence." We turn now to the longer-term project of cultivating these newly restored capabilities. Many patients come to describe the initial DBS effects in terms of potential that needs actualizing or capacities that require training. Recall Betty's comments: "I've got an appetite now, but if you ask me what I want, I can't decide," and "I think that the decision-making is going to take a while, because I have not made choices for a long time." We have also heard from patients that they could feel disoriented by their sudden sensitivity—overwhelmed by the brightness of the sun, the sweetness of a dessert, or the intensity of their emotional reactions. As we have come across multiple times now, this is part of what patients refer to when they conclude that DBS is "not a light switch." Even though the device typically induces rapid changes to patients' sense of agency—sometimes immediately felt—patients quickly realize that, like any complex skill, the exercise of autonomy requires practice. Patients have to educate their desire. The prerequisite sensitivity may be restored, but there remain many additional steps to the processes underlying the formation of healthy cognitive patterns and the enactment of treatment goals.

An essential one of these processes is epistemological. In the excerpt above, from an interview conducted over a year after his DBS surgery, Lance can be seen questioning his definition of depression. Where once it was a distinct and undeniable phenomenon, obviously distinguishable from sadness, he is here experiencing feelings run together and the conceptual boundaries between them blur. Emotions like grief or frustration share features with his past negative experiences of depression, and he instinctively categorizes them as evidence of a relapse. However, the psychiatrists draw his attention to phenomenological differences as well as relevant environmental factors worth noting, and his insistence softens. With time and accumulated experience of a wider range of emotions, all of the DBS patients revisit their definitions of depression, wellbeing, autonomy, and other related concepts, moving beyond the often simplifying categories that had served them as coping mechanisms in their illness. A greater number of experiential concepts become available and a greater depth of understanding achievable. Just as the roles in their relationships evolved beyond the unidirectional dynamic of "caregiver" and "recipient," their conceptual vocabulary also grows to incorporate subtleties that afford precision in their attempts to better attune to the complexities of the world.

Iris Murdoch is an invaluable guide to those aspects of consciousness that precede and give rise to understanding, choice, and action. Of particular use for our purposes is her philosophy of language. While Levinas elucidated our fundamentally affective relationship with the world and revealed the vital importance of ethical responsiveness as a precondition for reflective consciousness, Murdoch looks more closely at the forces that form (and deform) our subjectivity over time. She opens our eyes to the concepts, metaphors, and narratives that render us more or less open to the reality of others and their needs. Like Levinas, her thought knowingly entangles epistemology and ethics. Rejecting the "fact-value dichotomy," she explains both that knowledge is inherently motivated by practical concerns and that "clear vision is a result of moral imagination and moral effort."[1] Moreover, given her focus on the imbricated layers of everyday consciousness, one could argue that her approach is, in some ways, more traditionally phenomenological than that of Levinas, despite his philosophical lineage.[2] Levinas describes not an experience but the way in which one is born always already responsible for other persons, the pre-phenomenological conditions for consciousness. For Levinas, subjectivity simply is responsibility. Murdoch, as we will see, agrees that consciousness is internally structured with reference to the transcendent good and to our responsibilities for particular others. However, she more explicitly addresses the practical implications of this reality, emphasizing the difficulties inherent in our "endless task" of cultivating ethical attention.[3] While Levinas provides us with "transcendental" arguments demonstrating the necessary criteria for certain human capacities to be possible and make sense, Murdoch shows us how to effectively capitalize on those capacities in light of their origins and aims. I hope to show, in

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[1] Murdoch, Iris. "The Idea of Perfection." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 299–336. New York: Penguin, 1997: 329. On Murdoch's rejection of the traditional fact-value dichotomy, see: Diamond, Cora. "'We Are Perpetually Moralists': Iris Murdoch, Fact, and Value." In *Iris Murdoch and the Search for Human Goodness*, edited by Maria Antonaccio and William Schweiker, 79–109. Chicago: University of Chicago Press, 1996. For a book-length treatment of the topic, by a philosopher inspired deeply by both Murdoch and Levinas, see: Putnam, Hilary. *The Collapse of the Fact/Value Dichotomy and Other Essays*. Cambridge: Harvard University Press, 2002.

[2] At the very least, it is more directly grounded in moral psychology, echoing and responding to her friend G.E.M. Anscombe's famous demand for such work in her critique of moral philosophy, "Modern Moral Philosophy" in *Philosophy* 33, no. 124 (1958): 1–19. Murdoch, too, asserts that an adequate moral philosophy also requires a "working philosophical psychology" ("On 'God' and 'Good,'" 337).

[3] Murdoch, "The Idea of Perfection," 321.

this chapter and the next, that her central concepts of "attention" and "unselfing" help us appreciate what follows normatively and experientially from Levinas's more metaphysical starting point. While his account resonated with the shorter-term experiences of DBS patients as they emerge from the cave of their depression and become more outwardly attentive, Murdoch's moral phenomenology grants insight into patients' longer-term challenges as they aspire to reshape their consciousness and themselves.

Attention

In contrast to Levinas, Iris Murdoch focused a great deal of her writing on art, literature, and the ethical power of aesthetics.[4] Indeed, she is more commonly known as a novelist than as a philosopher. Yet, in certain crucial ways, her arguments on behalf of the value of art mirror and extend Levinas's ethical phenomenology. In an interview originally broadcast in 1977 on the BBC, Murdoch claims that good art is liberating in that it stirs us to think otherwise than our current dull fantasies and awakens us to that which is beyond ourselves.[5] "Most of the time," she states, "we fail to see the big wide real world at all because we are blinded by obsession, anxiety, envy, resentment, fear. We make a small personal world in which we remain enclosed."[6] The enemy of freedom is,

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[4] On Levinas's tense relationship with art, see: Cohen, Richard A. "Levinas on Art and Aestheticism: Getting 'Reality and Its Shadow' Right." *Levinas Studies* 11 (2016): 149–94. See also: Robbins, Jill. *Altered Reading: Levinas and Literature*. Chicago: University of Chicago Press, 1999. Levinas even worried about the limitations of visual metaphors of knowing, preferring what he saw as less violent and more receptive auditory and linguistic framings: "Inasmuch as the access to beings concerns vision, it dominates those beings, exercises a power over them. A thing is *given*, offers itself to me. In gaining access to it, I maintain myself within the same." (*Totality and Infinity*, 194). Interestingly, Murdoch responded to an almost identical point made by another Jewish philosopher, Martin Buber, who also argued against privileging the visual over other senses. She wrote: "The visual is an image of distance and non-possession… Speaking of morality in terms of cognition, the imagery of vision, which is everywhere in our speech, seems natural… By looking at something, by *stopping* to look at it, we do not selfishly appropriate it, we understand it and let it be… Looking can be a kind of intelligent reverence." (*Metaphysics as a Guide to Morals*, 461-462).

[5] Murdoch, Iris. "Literature and Philosophy: A Conversation with Bryan Magee." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 3–30. New York: Penguin, 1997. The interview can be viewed on YouTube at: https://www.youtube.com/watch?v=pBG10XnxQaI.

[6] Murdoch, "Literature and Philosophy," 14.

according to Murdoch, "the fat relentless ego."[7] The ego, as it promotes its subconscious goals of self-preservation and gratification, predisposes us to "building up convincingly coherent but false pictures of the world, complete with systematic vocabulary."[8] Elsewhere, she explains that such "personal fantasy"—"self-aggrandising and consoling wishes and dreams"—pulls our focus inward and "prevents one from seeing what is there outside one[self]."[9] On her account, these illusions tend to be totalizing, simplifying, and ever tempting coping mechanisms that arise almost mechanistically and filter our perception and cognition in a way that distances us from reality.[10] Murdoch's work shows us how surprisingly easy it is to get stuck interpreting the world through distortions of our own making. Her theory of language suggests that we instead need concepts, images, and narratives that better attune to the world beyond us and that these are only achieved through a developed capacity to call our current categories into question, refining and updating them.[11] Our beliefs and the stories we tell ourselves shape our experience, for better and for worse.

One likely already begins to see the similarities with not only Levinas's thought but also the experiences of our DBS patients and the depressive distortions characteristic of what we earlier dubbed "survival mode." The temptation to devise fantasies that feed and defend the ego is naturally present in all of us, but severe depression appears to be an extreme example of what

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[7] Murdoch, "On 'God' and 'Good,'" 342.
[8] Murdoch, "The Idea of Perfection," 329.
[9] Murdoch, "On 'God' and 'Good,'" 348.
[10] "Yet modern psychology has provided us with what might be called a doctrine of original sin, a doctrine which most philosophers either deny (Sartre), ignore (Oxford and Cambridge), or attempt to render innocuous (Hampshire). When I speak in this context of modern psychology, I mean primarily the work of Freud. I am not a 'Freudian' and the truth of this or that particular view of Freud does not here concern me, but it seems clear that Freud made an important discovery… One may say that what he presents us with is a realistic and detailed picture of the fallen man… He sees the psyche as an egocentric system of quasi-mechanical energy, largely determined by its own individual history, whose natural attachments are sexual, ambiguous, and hard for the subject to understand or control. Introspection reveals only the deep tissue of ambivalent motive, and fantasy is a stronger force than reason. Objectivity and unselfishness are not natural to human beings." (Murdoch, "On 'God' and 'Good,'" 341).
[11] For an excellent, thorough analysis of Murdoch's theory of language, see: Forsberg, Niklas. *Language Lost and Found: On Iris Murdoch and the Limits of Philosophical Discourse.* New York: Bloomsbury, 2013.

Murdoch calls “neurosis,” appropriating the term from Freud.[12] In an interview conducted six months after her DBS surgery, Julie offered the metaphor of a “padded cell” as a depiction of the process of escaping those ego-protective thought patterns that had gone awry in depression:

> Psychiatrist 1: What happened with that sense of suffering that you described in the past?
>
> Julie: I remember it. It’s like Stockholm Syndrome. I have this vision of a padded cell with no windows. It’s dark and soft. The door was always locked, and I’d made it my home. It’s where I lived for so long. And now, because of what I’m doing with the DBS, the door unlocked, and I’ve chosen to open it. I’ve stepped out, and I think the suffering that is out there is different than the suffering that I’m familiar with, which is all in the room. And I still see my behavior sometimes going back in the room, just to make sure it’s still there. But I see now that there’s color and beauty and sights and sounds that I never experienced while I was in the room. But it is still scary.
>
> Psychiatrist 1: What’s scary?
>
> Julie: My identity is forming. And I will bring some of who I was in that room with me but not that kind of suffering, because that doesn’t need to go with me. The kind of suffering that’s out there is sadness and grief and loss and those kinds of things that are normal responses. And the suffering that’s back in the room is not normal.
>
> Psychiatrist 1: How is it different? How is that suffering not sadness and grief and loss? What is it?
>
> Julie: It’s self-mutilating. It’s like there’s no outside stimuli so you have to, you know, stick yourself with a pointy object to feel the pain and know you are alive. It’s awful. It’s like a horror movie, you know? And it’s such strange behavior. It’s like, “Why would I ever want to go back to that room?” Because it’s what I know. So, there is almost a level of comfort in going back in that room, because I know it so well. But there’s another part of me now that says, “But you hate that room back there. You hated that. Let’s go explore and see what else is out here.” It’s hard to do when you are not sure about who you are as a person without all that. But I’m getting there. I think the CBT really helps with that a lot.
>
> Psychiatrist 1: In the moments when you feel yourself standing outside of the room, is your sense of it as vivid as when you are in it? Like, can you bring it to mind, or does it feel somehow apart?
>
> Julie: The longer I’m out of the room, the more it feels distant.

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[12] Murdoch, “The Sublime and the Good,” 216. She explains that “The enemies of art and of morals, the enemies that is of love, are the same: social convention and neurosis.” In severe cases such as TRD, though, a Freudian might suggest that the condition has reached the point where it begins to shade into a form of psychosis, given how debilitating it is and the fact that patients have lost touch with reality.

> Psychiatrist 1: Is the reverse true?
>
> Julie: I'm not sure, because I haven't been back in the room for a long period of time, at least a few weeks. And when I do step in, it's kind of like, "yuck."
>
> Psychiatrist 1: Do you have a sense that stepping in is volitional?
>
> Julie: I think it's been more reactional. But I'm learning with time that that's not necessarily my safe space.
>
> Psychiatrist 1: So, what do you think will happen when Kate gets here on Thursday? Think you'll break out the guitar?
>
> Julie: Yeah. I'm looking forward to spending time with her. My thoughts about the future make me smile now. That's different. This—outside of the padded room—is getting more real.

There are many similarities between this exchange and Lance's above, even down to the horror movie motif. Most importantly, though, both illustrate old categories blurring as new ones take their place. Less rigidly attached to her mental models, uncertainty shifts for Julie from being a threat to an opportunity; no longer as scared of the world "out there," she looks to the future with a sense of possibility. By spending more and more time outside of depression's "padded room," she is able to enact a healthier and more hopeful way of life, to make it real. In the last chapter, I highlighted the parallels between "survival mode" and Levinas's phenomenology of nausea. In this chapter, we will explore the ways in which it represents a limit case of "neurosis," which Murdoch defines as "a mechanical repetitive imprisoning of the mind" motivated by fear of reality and its unpredictability.[13] On her account, "neurosis" and "convention" (popular social scripts, roles, and assumptions) are the primary sources of false, totalizing narratives.[14] Murdoch scholar Maria Antonaccio explains that these are "actually two sides of the same coin": "In one case, the self

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[13] Murdoch, *Metaphysics as a Guide to Morals*, 139.

[14] "The enemies of art and of morals, the enemies that is of love, are the same: social convention and neurosis. One may fail to see the individual… because we are ourselves sunk in a social whole which we allow uncritically to determine our reactions, or because we see each other exclusively as so determined. Or we may fail to see the individual because we are completely enclosed in a fantasy world of our own into which we try to draw things from the outside, not grasping their reality and independence, making them into dream objects of our own." (Murdoch, "The Sublime and the Good," 216).

becomes the whole of reality; in the other, the self is eclipsed or shrunk in relation to the social totality."[15] Murdoch's philosophical thought then offers us the antidote, an ongoing strategy for achieving critical distance from these narratives and better grasping reality.

To counter the ego's cognitive biases, she promotes the practice of "attention," a concept borrowed from mystic, philosopher, and activist Simone Weil. Murdoch defines it as the ability to perceive particular others justly and accurately, and she sees this as "the characteristic and proper mark of the active moral agent."[16] Attention, which is demanding, difficult, and good, is to be distinguished from mere "looking," which she describes as neutral at best, but typically subject to the ego's distortions. Similar to Levinas's view of "representation," looking involves the imposition of extant categories without significantly updating one's mental models. Attention, on the other hand, has a fundamentally receptive component to it such that the subject is influenced by, and learns from, that which is exterior.[17] Like good art, attention paid to particular others interrupts our illusions and complicates our categories by opening our eyes, so that we can improve our grip on reality.[18] Importantly, attention has an active element too.[19] It involves a desire for the particular other not grounded in possession, mastery, or the fulfillment of a lack.[20] Murdoch invokes the Platonic notion of *eros*, our desire for the transcendent good, which she describes as reality's "force

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[15] Antonaccio, Maria. *Picturing the Human*. New York: Oxford University Press, 2000: 101-102.

[16] Murdoch, "The Idea of Perfection," 327.

[17] Weil refers to this as "waiting." Her theory of attention is directly inspired by her mystical metaphysics, grounded in the Kabbalistic notion of "*tzimtzum*" or God's self-contraction or concealment from the created world. Similarly, only by withdrawing our selves do we achieve union with reality, align our autonomy with God's reality, and become vessels through which God's will is enacted. See: Weil, Simone. *Waiting for God*. 1951. Reprint, New York: Harper Collins, 2009. Recall also from Chapter 3 (footnote 43) that Levinas was clearly inspired by the notion of "*tzimtzum*" as well for thinking through the relationship between the self and the world.

[18] Compare this also with Levinas's early notion of transcendence as escape from the ego discussed in the previous chapter. For a similar philosophical argument on the value of destabilizing one's concepts and updating them out of a commitment to the good, see Jonathan Lear's *A Case for Irony*. Cambridge: Harvard University Press, 2011. Further building his case, Lear in a later book reminds us of Plato's emphasis on "the importance of the disruptive, disorienting experience as that from which philosophical activity emerges." (*Wisdom Won from Illness: Essays in Philosophy and Psychoanalysis*. Cambridge: Harvard University Press, 2017: 68).

[19] Murdoch explicitly critiques too strict of a dualism when it comes to active versus passive. See "The Darkness of Practical Reason." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 193–202. New York: Penguin, 1997: 196.

[20] This is very similar to what Levinas calls "metaphysical desire" (*Totality and Infinity*, 34).

of magnetism and attraction which joins us to the world."[21] Continuing in a Platonic vein, Murdoch regularly draws also on his allegory of the Cave to suggest that human life "is a spiritual pilgrimage" that is "inspired by the disturbing magnetism of *truth*, involving *ipso facto* a purification of energy and desire in light of a vision of what is *good*."[22] Cultivating attention means emerging from the enclosed and familiar Cave of the self, learning to really see what is true and good.[23] As we shall explore in detail in this chapter and the next, this aspirational conception of moral realism is often implied (and sometimes articulated explicitly) in the accounts of DBS patients as they work toward recovery and mental health.

For DBS patients and Murdoch alike, the practice of attention engenders attunement. It allows us to grasp over time what really *is* and what we therefore *ought* to do. Like much of the phenomenological tradition, this framework involves transcending traditional philosophical dualisms, such as the active-passive division mentioned above. Murdoch takes particular aim at the fact-value dichotomy. Ethics and epistemology cannot be disentangled, she argues, because to grasp the truth requires a "just and loving gaze," while the exercise of virtue requires accurate vision.[24] Consciousness itself, for Murdoch, is not morally neutral but inherently evaluative and internally structured with respect to value.[25] To quote an exemplary passage at length:

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[21] Murdoch, *Metaphysics as a Guide to Morals*, 496.

[22] Murdoch, *Metaphysics as a Guide to Morals*, 14. She later writes of the ethical-epistemological pilgrimage that "Plato's pilgrim is able, at various stages in his journey, his escape from the Cave, to construe the difference between the apparent and the real…" (Murdoch, *Metaphysics as a Guide to Morals*, 62).

[23] Recall also neuroscientist Anil Seth's reference to Plato's Cave featured in Chapter 2, where he described predictive processing as the updating of mental models and predictions as they come in contact with reality. Here we see that Murdoch clarifies that this framework should be understood in terms of its normative or ethical implications as well.

[24] Murdoch, "The Idea of Perfection," 327. She elsewhere writes: "…the world we see already contains our values and we may not be aware of the slow delicate processes of imagination and will which have put those values there." ("The Darkness of Practical Reason," 200).

[25] Murdoch, *Metaphysics as a Guide to Morals*, 314-315. Compare this with predictive processing accounts and enactivist philosophy suggesting that all cognition is motivated and oriented in light of a sense of what one ought to do.

> It is in the capacity to love, that is to *see*, that the liberation of the soul from fantasy consists. The freedom which is a proper human goal is the freedom from fantasy, that is the realism of compassion. What I have called fantasy, the proliferation of blinding self-centered aims and images, is itself a powerful system of energy, and most of what is often called 'will' or 'willing' belongs to this system. What counteracts the system is attention to reality inspired by, consisting of, love… Freedom is not strictly the exercise of will, but rather the experience of accurate vision which, when this becomes appropriate, occasions action… By the time the moment of choice has arrived, the quality of attention has probably determined the nature of the act.[26]

Reminiscent of Levinas's evolving notion of "transcendence," our *telos* as humans is to escape the centripetal pull of our egos—to step outside of the "padded room"—and aspire to ethical responsiveness to others, a more centrifugal orientation, as it were.

This passage has revolutionary implications for how we understand autonomy, upending many of the assumptions found in mainstream bioethics scholarship. Freedom is not the exercise of will; rather, occasioned by an encounter with otherness, it includes both *freedom from* one's self-concerned fantasies and *freedom to* respond to the demands of a situation, "something very much more like 'obedience.'"[27] For Murdoch, freedom consists not in the proliferation of choices, but in the trained attunement to reality such that virtuous choices become obvious, even automatic: "If I attend properly I will have no choices and this is the ultimate condition to be aimed at."[28] Much as in Levinas's scheme, autonomy is invested by a prior heteronomy, given direction, substance, and meaning. Long before the act of choosing, one's primary locus of control, according to Murdoch, is

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[26] Murdoch, "On 'God' and 'Good,'" 354.

[27] Murdoch, "The Idea of Perfection," 331. See also Simone Weil on attention leading to an "automatic" response: "Only one stops and turns his attention… The actions that follow are just the automatic effect of this moment of attention." (*Waiting for God*, 90).

[28] Murdoch, "The Idea of Perfection," 331.

in the effortful cultivation of attention and ethical consciousness.[29] Beyond simply "opening one's eyes" to reality, one must also engage in "moral discipline."[30] That is the hard part.

Of what does this discipline consist? For Murdoch, a vital component is learning to achieve more accurate description.[31] Reality is complex. To best grasp it, we need nuanced mental models. On her account, consonant with the findings of predictive processing researchers, the way we perceive the world is shaped by the concepts, images, and narratives that we know and use.[32] In a sense, concepts themselves are mental affordances, rendering aspects of our environment salient (or obscured).[33] Therefore, she criticizes philosophical tendencies that have "reduced our vocabulary and simplified and impoverished our view of the inner life," arguing that "what we require is a renewed sense of the difficulty and complexity of the moral life."[34] We need a vocabulary that reaches beyond matters of "good" versus "bad," "right" versus "wrong," or

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[29] Compare this with phenomenologist Matthew Ratcliffe's framing of diminished freedom in depression as characterized by a diminished ability to perceive possibilities as available or salient, as discussed in Ch 2.

[30] Murdoch, "The Idea of Perfection," 330.

[31] Murdoch at one point also compares the work involved in attention to that required for learning a language: "If I am learning Russian, I am confronted by an authoritative structure which commands my respect. The task is difficult and the goal is distant and perhaps never entirely attainable. My work is a progressive revelation of something which exists independently of me. Attention is rewarded by a knowledge of reality. Love of Russian leads me away from myself towards something alien to me, something which my consciousness cannot take over, swallow up, deny or make unreal. The honesty and humility required of the student—not to pretend to know what one does not know—is the preparation for the honesty and humility of the scholar who does not even feel tempted to suppress the fact which damns his theory… Studying is normally an exercise of virtue as well as of talent and shows us a fundamental way in which virtue is related to the real world." ("The Sovereignty of Good over Other Concepts," 373).

[32] "Metaphors are not merely peripheral decorations or even useful models, they are fundamental forms of our awareness of our condition." (Murdoch, "The Sovereignty of Good over Other Concepts," 363); she similarly wrote: "It is in terms of the inner complexity of such concepts that we may display really deep differences of moral vision" in Murdoch, Iris. "Metaphysics and Ethics." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 59–75. New York: Penguin Books, 1997: 73.

[33] Tom McClelland has proposed a framework for treating concepts as "mental affordances": McClelland, Tom. "The Mental Affordance Hypothesis." *Mind* 129, no. 514 (2020): 401–27. Bruineberg and van den Herik offer a useful critique of this hypothesis, endorsing the notion of concepts as mental affordances, but clarifying the need not to unintentionally import Cartesian dualism: Bruineberg, J. P., and J. C. van den Herik. "Embodying Mental Affordances." *Inquiry*, 2021, 1–21. Charles Taylor also provides a philosophical analysis of concepts as affordances in terms of interpersonal meaning-making in his book *The Language Animal: The Full Shape of the Human Linguistic Capacity* (Cambridge: Harvard University Press, 2016: 153).

[34] Murdoch, Iris. "Against Dryness." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 287–96. New York: Penguin, 1997: 293.

"permissible" versus "forbidden" such that we can appreciate the subtleties of everyday life and the demands of particular concrete contexts.[35] She continues that:

> We need more concepts in terms of which to picture the substance of our being; it is through an enriching and deepening of concepts that moral progress takes place. Simone Weil said that morality was a matter of attention, not will. We need a new vocabulary of attention.[36]

In other words, the cultivation and exercise of autonomy require a commitment to not only assimilating new terms but also to disrupting and updating current concepts.[37] Levinas showed us that being drawn out of self-concern by the other is the grounds for reflective thought and the origin of objectivity. It is how we are "taught." Murdoch's framework of attention then helps us understand how to assimilate what we are taught in the course of moral formation. She clarifies what the development of ethical consciousness is like "from the inside."

In her seminal essay, "The Idea of Perfection," she illustrates this process with a story about two characters, M and D. M is a mother-in-law who initially harbors a negative judgment of her new daughter-in-law, D, based on certain superficial qualities like her "unpolished" appearance and "juvenile" tendencies.[38] She feels "that her son has married beneath him."[39] As the narrative unfolds, however, M considers the possibility that she has been "prejudiced and narrow-minded,"

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[35] Murdoch, "Metaphysics and Ethics," 72.

[36] Murdoch, "Against Dryness," 293.

[37] "My view might be put by saying: moral terms must be treated as concrete universals. And if someone at this point were to say, well, why stop at moral concepts, why not claim that all universals are concrete, I would reply, why not indeed? Why not consider red as an ideal end-point, as a concept infinitely to be learned, as an individual object of love? A painter might say, 'You don't know what "red" means.' This would be, by a counter-attack, to bring the idea of value, which has been driven by science and logic into a corner, back to cover the whole field of knowledge… Perhaps all concepts could be considered in this way: all I am now arguing is that some concepts must be." (Murdoch, "The Idea of Perfection," 322–3).

[38] Murdoch, "The Idea of Perfection," 312.

[39] Murdoch, "The Idea of Perfection," 312.

"snobbish," and "jealous," and she commits to reevaluating her assessment. With effort, M comes to see D in a new light: "not vulgar but refreshingly simple, not undignified but spontaneous, not noisy but gay, not tiresomely juvenile but delightfully youthful, and so on."[40] Transcending her initial biases and self-centered preoccupations, M undergoes a transformation of consciousness. She learns to recognize D's inherent goodness and develops a genuine love for her as a particular person rather than as an extension of her own ego. Again, this is an intertwined ethical and epistemological challenge: "What M is *ex hypothesi* attempting to do is not just to see D accurately but to see her justly or lovingly."[41] Love, for Murdoch, is the ability to direct attention toward another.[42] This story reveals that perceiving truthfully requires escaping from the simplifying temptations of our own ego-protective fantasies and toward ever deeper appreciation of individuals as they are in all their complexity, not merely as we want them to be.

This task almost always requires support from others, but ultimately it is specific to each of us and the relationships of which we are a part: "if M says that D is 'common,' although the term does not belong to a technical vocabulary, this use of it can only be fully understood if we know not only D but M."[43] We each have distorting narratives to which we are susceptible and that fail to do justice to the reality of particular others. Overcoming these biases is the hard work of attention. Ethics, for Murdoch, is not about following universal rules or principles, but about training one's perception, cognition, and responsiveness—a highly individualized, context-specific task. She defines "metaphysics" as the creation of pictures of the deepest and largest structures of reality.[44] But, as those pictures guide moral progress, one does not transcend to higher and ever more

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[40] Murdoch, "The Idea of Perfection," 313.

[41] Murdoch, "The Idea of Perfection," 317. Note that for Murdoch there is no value-neutral way of intelligibly describing reality. Love frees us to accurately perceive and describe.

[42] "The direction of attention is, contrary to nature, outward, away from self which reduces all to a false unity, towards the great surprising variety of the world, and the ability so to direct attention is love." (Murdoch, "On 'God' and 'Good,'" 354).

[43] Murdoch, "The Idea of Perfection," 325.

[44] Murdoch, *Metaphysics as a Guide to Morals*, 507.

detached levels of description or theory; rather, one achieves a more textured, fine-grained appreciation of concrete particulars, including other people and their needs in specific situations. Novelist as she was, Murdoch advocates that this need for thick description and "secondary moral words" should motivate us to engage deeply with art and literature;[45] as should be evident from this dissertation, I believe that the same logic applies to experience-near empirical research, including phenomenology. DBS patients work very hard to update their mental models and conceptual lexicons so that they can better map the terrain under their feet. My hope is that by attending closely to their accounts, we too will deepen our own understanding in a way that helps us as both scholars and caregivers.

"Deepening of Concepts"

This chapter's opening excerpt features Lance wrestling with the distinction between depression and sadness as their definitions morph in response to his experience of recovery. Throughout every DBS patient's journey, there are patterns of linguistic changes that reflect their changing subjective experience. The evolution of each patient's lexicon of relevant concepts is not only a marker of progress made, but also itself contributes to their recovery. As Murdoch posits, images and narratives can function as types of affordances that invite patients to cope with their experiences in better, worse, or even just different ways. Some narratives reinforce feelings of confinement or hopelessness and turn attention inward, while others are empowering or liberating and encourage outward attention. In previous chapters, we looked closely at DBS patients' sometimes jarring experiences with the initial effects of the device, primarily including renewed sensitivities to the world and enhanced motivation to partake of the world and contribute to it. However, managing these sensitivities, drives, and desires and putting them to use requires another higher-order set of cognitive skills. We will now examine the phenomenology of this

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[45] Murdoch, "The Idea of Perfection," 317.

aspirational self-formation, of constructing and embodying narratives that conduce to a desired sense of autonomy.

As we follow patients' aspirations, we will see that there are recurring themes in their efforts to revise the narratives through which they understand what is real and what is possible. Recall from our brief survey of the literature on the phenomenology of depression in Chapter 2 that severe depression is often experienced as the reification of the body and mind. Those suffering from depression become increasingly sealed off from the world and reduced to a static state in which no meaningful change is felt to be possible. A parallel phenomenon seems to occur with patients' mental models specifically. Certain simplifying, ego-protective conceptualizations functioned for them as coping mechanisms. For instance, in Chapter 3, we discussed the predilection for utilitarian or "survivalist" interpretations of interactions with the world and with other people. These narratives and categories are reinforced over time and fail to be substantially updated in response to new external information.[46] With the DBS active, patients are more receptive again to prediction error and they can finally replace these cognitive biases with healthier thought patterns and models. The process, though, is far from instantaneous. It requires reflection, effort, and assistance.

"Depression" versus "Wellbeing"

One of the cognitive biases that stood out most prominently during testimonial analysis is a strong tendency toward dichotomous or "black-and-white" thinking among the DBS patients when depressed.[47] This often manifested as a strict binary view of depression and wellbeing, treating them as rigid, clearly distinct categories. For instance, in an interview two weeks before implantation of his DBS, Lance explained that the difference between depression and health can be

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[46] This tendency is made all the worse by the depressive tendency to not act in ways that provide novel experiences in the first place. This is discussed more in the Conclusion.

[47] In psychology, this tendency toward dichotomous thinking is known as "splitting."

described as "marking time versus celebrating time," a theme that he would return to frequently, arguing that life with depression was "pure torture" compared to life without depression which "would be like I used to be, where I loved every minute of life." He would even go so far as to define the successful outcome of DBS treatment as being "invulnerable to low mood." In the early days after activating the DBS, too, his definitions remained absolute and unyielding—two weeks after turning on the device, he stated:

> I'm very in touch with being depressed and not being depressed. And with me it's kind of an on/off switch, a very remarkable difference. There's not a lot of shades of gray with me when it comes to responding to treatments.

Recollecting past experiences with antidepressants, he felt that a drug was either wholly effective or not at all, with stark transitions between illness and feeling "wonderful." Lance would also routinely analogize his brain to a symphony with an instrument "going rogue" when describing its depressive "dysfunction." According to his metaphor, either the symphony is harmonizing flawlessly, or its performance is "ruined":

> It's odd to me that if there's a Creator out there that they would make it so that if a neural pathway doesn't work, the default is horrible depression—that your mind needs to be a perfect symphony all the time or you'll get depressed.

Sounding a similar note, in her first recorded interview, one month before surgery, Betty claimed:

> I'm either there, or I'm not. I'm either okay, or I'm not. There's not much middle ground. Right now, I'm just constantly inward. The word "agonizing" is a strong adjective, but that's how it feels. You know, it feels like hell.

In Betty's case, this binary perspective was then further reinforced by her unusually dramatic response to the DBS. As previously mentioned, she felt "cured" instantly of her depression after the initial surgery and testing protocols. However, we will see in the next chapter that even when her reports of subjective wellbeing were high, this did not obviously coincide with what others would describe as recovery. Additionally, like most patients, she would go on to experience the period of decline referred to as the "rough patch," and her trajectory began to resemble the more typical course. The psychiatrists took that as an opportunity to introduce the possibility that her recovery might be more complicated than she assumed:

> Psychiatrist 2: If you were to start feeling better, how do you think you would notice?
>
> Betty: With all these years of having depression come and go, you know, taking medication then getting better, I can just feel when the medication is working. It's not like a slow incline. It's like, "Well, I'm back."
>
> Psychiatrist 2: It's always just a snap, with no gradual curve? Just on/off?
>
> Betty: That's right.
>
> Psychiatrist 2: What if I told you DBS is not like that? Although it was at the beginning for you, we always see gradual, slow, baby step progression. What would you then gauge as a result?
>
> Betty: Hmm… wanting to be in communication with other people, because when I'm like this, I don't want anybody to see me. I feel like I'm just… pitiful. So that would be a way that I would know.

Informed by their past experiences with illness and various treatment modalities, Lance and Betty, like many other patients, begin their recovery with a view of depression and health as polar opposites with the assumption that the DBS treatment will cure them with the flip of a switch:

> Lance: It's very unsettling, because I think in life there's a paradigm that when a device is put in and turned on, you're going to be better—that's been my experience in the past, that's been why I see my depression as an on/off switch thing. So I thought that that would be mimicked by the DBS, and I'm disappointed that it's not that way. I guess I need to read more and glean that this is going to take time and settle my worries down. I'm going to have to be patient.

Having lived in "survival mode" for so long, it makes sense that they would draw at first upon those ego-protective conceptualizations. When their experience doesn't match their primed expectations, though, coping can be profoundly difficult. There is a learning curve involved in coming to appreciate that recovery does not follow the course of their technologizing assumptions and that wellbeing comprises more than subjective feelings of happiness. Simplifying categories no longer felt to be valid or viable, their definitions of "recovery," "health," and "happiness" suddenly become radically uncertain. For many patients, thinking deeply about what it is that they should be aiming for at all becomes an essential element of their recovery journey.

Acted Upon

Another common conceptual tension that patients navigated was more explicitly about their sense of autonomy and the extent to which they were or were not in control of themselves. Obviously, their thinking about this topic closely relates to how they conceptualize depression and recovery. Several patients started upon their paths to recovery with a consistent tendency to describe themselves in the passive language of being acted upon—by nearly everything, from their depression to the DBS device, fate, other people, and countless other features of their environment. With regard to depression specifically, they typically justified this perspective based on the seemingly "random," "unprovoked," or "inexplicable" nature of their depressed mood, the fact that it appears to affect them with no precipitating triggers. As Betty stated in an interview three weeks before her DBS surgery:

> You know, some people have situational depression, which I understand. But in my case, I have no reason to feel sad, to feel no pleasure. I mean, I've got a loving husband. I've got children. If you look at it intellectually, well, why am I feeling this way? I mean, I know—it is a disease. I know that. It's not something I can just talk myself out of.

Many patients even treated their depression as an independent external agent afflicting them, labeling it a "bloodsucker" or "parasite." Lance described his depression as having "a mind of its own," explaining that "it just comes and goes on its own, unrelated to anything I do at all." In fact, he regularly brought up his morning routine of waking up and "waiting to see if the depression is attacking today." Toni offered a similar account in an interview three weeks before the placement of her device:

> It's so random and unpredictable that I don't know what to attribute it to, except that there's a broken signal in there somewhere. It's independent of anything and just seems to do what it

> wants to do. I guess I'm kind of personifying it, but it does seem like it's this entity, you know? It's there and just decides when it wants to torture me.

Terms like "broken signal," "brain disease," and "chemical imbalance" were commonly used by patients to biologize their condition and position themselves as victims of a malady over which they have very little or no control. Occasionally, patients (and sometimes the psychiatrists) would compare their condition to that of a cancer patient or someone with a broken limb.[48] Biologizing language was also often accompanied by striking examples of patients portraying not only their disease but also their brain or even their material body as non-self, separable from their identity, e.g. "my brain is tricking me." There were numerous descriptions of a "rebelling" brain acting upon the self. Interestingly, some patients would weight neurological explanations as more "real" than even chemical ones (and certainly more than psychological ones). One month before surgery, Julie shared:

> I just feel like, being here in the study, finally someone gets that this is actually like a neurological disease and not just a chemical imbalance.

Patients often turned to the psychiatrists in search of scientific evidence that might validate their illness as a "physical" or "measurable" object. Susan, in an attempt to cope with a negative spell, explained, "I would like hard data on what's going on in my brain." Likewise, after voicing her fear about a sudden deterioration in her mood, Betty expressed a similar inclination:

> Psychiatrist 1: Is there any way that you imagine I can help with that fear?
>
> Betty: Nothing is showing up as far as data on brain waves? Nothing that's really measuring this dip is there?
>
> Psychiatrist 1: Not that we've been able to explore yet. There's a big gap in time in terms of things we collect and being able to explore it in any meaningful way. How do you think that might help you?

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[48] This is an increasingly popular strategy among "anti-stigma" advocates who wish to emphasize that having a mental illness is not anyone's fault. See for example the "Bring Change to Mind" campaign at: www.bringchange2mind.org/learn.

> Betty: I don’t know. I just want to know how that dip looks, um, physically.

Characterizing their role as passive, afflicted by an external entity—biological, anthropomorphic, or otherwise—typically functioned as an explanation for why patients were incapable of actively changing their circumstances.[49] For example, returning to Lance’s story, two weeks after the device was activated:

> Psychiatrist 2: Thinking about your binary experience of depression as opposed to more of a scale of gradations—the on/off or all-or-nothing nature of it—does that have any meaning to you? Do you draw from that some kind of conclusion?
>
> Lance: I draw from that a conclusion that something in my brain is not right. When the neurons fire, if you’re normal, it should be a perfect symphony happening. And, for some reason, the clarinet guy left or is just playing on his own and ruined the symphony, and I’ve just got depression instead of everything being good.

Note that his tendency to fit things into a binary framework is not only a matter of description; it leads to normative conclusions for him. The fact that he conceives of his depression as an on/off phenomenon implies that it is a neurological problem over which he has no control. From his perspective, agency is not a pertinent concept. Months later, amidst a dip in his mood, he stated this position directly:

> Psychiatrist 2: What is going to get you feeling better?
>
> Lance: DBS needs to get me feeling better.
>
> Psychiatrist 2: How is that?
>
> Lance: Well, I don’t know. You tell me. I have no control over it.

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[49] In her book exploring psychiatry in America, anthropologist T.M. Luhrmann describes this logic as being used to relieve sufferers of moral accountability, writing “the body is always morally innocent.” (*Of Two Minds: An Anthropologist Looks at American Psychiatry*. New York: Vintage Books, 2001: 8). There is also a long history of anthropologists describing cultural accounts of mental illness that revolve around spirit possession, demonology, and other “external” causes. See for example: Lambek, Michael. *Knowledge and Practice in Mayotte: Local Discourses of Islam, Sorcery and Spirit Possession*. Toronto: University of Toronto Press, 1993.

Here he fell back on his role as passive and afflicted in order to justify his belief that only a technological solution makes sense. He would go on to argue that it should be plain to see that a "mechanical solution" is necessary because "I am mechanically disabled from experiencing happiness." The way we perceive and frame situations shapes the normative options understood to be available to us.[50]

Some patients began the clinical trial not with an interpretive tendency toward feeling acted upon, but with a hermeneutic of guilt, feeling maximally responsible for their condition. These patients sometimes found themselves turning to biologizing conceptualizations as a coping strategy that would relieve them of the burden of self-blame and allow them to accept technological help. Susan, for instance, repeatedly shifted back and forth between the extremes of the biological model and what one might call a willpower model. Two weeks before activating her device, she articulated the stakes of this debate:

> Susan: I want to believe both that I have ultimate control over my mood and that there might be something that I can't control in the mind.
>
> Psychiatrist 1: What would it mean to you if there was part of your mind that you can't control?
>
> Susan: It would be a burden off of me for responsibility for being here in this state. But also, if I can't control it, then I'd have to trust that there is something that will work to make it better. Because if it's not in my control and there's not something that will make it better, then just throw in the towel. It's not worth it.
>
> Psychiatrist 1: Up to this point, have you been able to exert willpower to change things?
>
> Susan: No.
>
> Psychiatrist 1: So why don't you trust that experience? Why is that not a reality?

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[50] Anthropologists Byron J. Good and Mary-Jo Delvecchio Good write: "*all illness realities [are] fundamentally semantic*… Whatever the biological correlates or grounds of a disease, sickness becomes a human experience and an object of therapeutic attention as it is made meaningful… *All* illness realities are meaningfully constituted" (Good, Byron J., and Mary-Jo Delvecchio Good. "The Meaning of Symptoms: A Cultural Hermeneutic Model for Clinical Practice." In *The Relevance of Social Science for Medicine*, edited by Leon Eisenberg and Arthur Kleinman, 165–96. Dordrecht: Springer, 1981: 167). Similarly, Arthur Kleinman wrote, "The cultural meanings of illness shape suffering as a distinctive moral or spiritual form of distress." (*The Illness Narratives: Suffering, Healing, and the Human Condition.* New York: Basic Books, 1988: 26).

> Susan: I don't know. I could try harder—eat better, meditate more, smile more, exercise more; I kind of think that might do it. I talk myself into this mindset every day.
>
> Psychiatrist 1: What would you say to a patient in your situation?
>
> Susan: I wouldn't trust myself to talk with a patient that's depressed right now. "It sucks to be you," I'd say. I dislike myself right now.

We see here the psychiatrist highlighting the reality that much of our experience, especially when it comes to psychiatric illness, is beyond our direct control and might require assistance from outside sources. In Susan's case, learning to accept the role of "acted upon" was useful, even necessary, in the process of recovery. After four months with the DBS on, she stated that:

> It's helpful to see periods of negativity and moodiness as a physiological process to be expected instead of something overwhelming, like "Oh my God, it's happening again." It's helping to see it as part of that process, especially because some of the ups and downs are not situational.

Seeing oneself as constrained in this way, almost paradoxically, could serve as a stepping stone toward a more robust sense of autonomy, if only because it leads to an acceptance that one's prior categories might not be adequate for attuning to reality.[51] The truth of the matter, as theorists of relational autonomy have well established, is that control and agency exist on a continuum; every situation involves a confluence of factors, some within our control and others beyond it.[52]

Some patients entered the study with a tendency to "other" their depression and needed to be taught that they have an active role to play in their recovery—DBS is not a light switch, and their agency matters. Others entered the study with a tendency to overly identify with their depression,

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[51] There is also evidence to suggest that overly privileging the role of willpower is itself counterproductive when it comes to psychiatric illness and can lead to "ego depletion." See for example: Snoek, Anke, Neil Levy, and Jeanette Kennett. "Strong-Willed but Not Successful: The Importance of Strategies in Recovery from Addiction." *Addictive Behaviors Reports* 4 (2016): 102–7.

[52] Sociologist David Karp discusses some of the challenges involved in accepting the specific diagnostic label of depression in his books *Is It Me or My Meds?* and *Speaking of Sadness*. This includes, for instance, the worry of being treated differently if one's condition reaches a severity that calls for a clinical diagnosis and the need for outside help. See: *Is It Me or My Meds?* Cambridge: Harvard University Press, 2005. and *Speaking of Sadness: Depression, Disconnection, and the Meanings of Illness*. New York: Oxford University Press, 1996.

self-blaming and needing to be taught that there is a physiological component of their disease over which they do not have complete control. In some cases, biologizing can be helpful, while in others, recentering the patient's agency is what is indicated. Ultimately, it is something of an art for the psychiatrists and patients to discover together which concepts and narratives need promoting in light of their specific psychological tendencies and their social and cultural contexts. As Iris Murdoch made clear, underlying this art is the responsibility to grasp complexity and see that the narratives that may come most easily to us at first are often the most blinding or distorting of reality. The evolution of patients' mental models toward greater complexity was not only a general epistemological pattern but also a consistent marker of progress in their recovery.

Toward Complexity

Compare the following excerpt from an interview done after five months of stimulation with Susan's pre-DBS formulation above of the tension between the disease model and the willpower model:

> Psychiatrist 1: What do you think now at five months, looking back?
>
> Susan: It's been a trip. I don't know. I kind of move between a few different places about what I believe about how much it's helping. Overall, I think the stimulation is helping. I'm acknowledging more, though, how many other factors there are in my mood. I don't know. There are times when I think that the stimulation is an absolute facilitator to a good mood, to being well. And there are times when I think it's a contributor, part of a set of conditions that support feeling well.
>
> Psychiatrist 1: How are those different—a facilitator versus a contributor?
>
> Susan: I guess in terms of necessity. I think I'm still in a period where I'm not sure whether to believe it's necessary, a necessary part of being well. I want to think that it's not, so that I can believe I can be well without it. On the other hand, there are times when I want to believe that it's absolutely a necessary part of being and staying well, like gas is a requirement for the car to run, you know? Everything else can be working but you have to have gas. I think that's mostly a kind of a cognitive process for me in coming to terms with what I want to believe about how necessary it is.

> Psychiatrist 1: What are the implications of one versus the other way of thinking about it?
>
> Susan: It's the standard dilemma that I've been dealing with since day one of how much is disease and how much is cognitive conscious control over my state. The consequences are if I believe it's necessary, then I get afraid that it will stop working.
>
> Psychiatrist 1: And if it's not necessary?
>
> Susan: Then I have lots that I can do to take charge of my life and my state of wellness. But if it's not necessary, then what the heck am I doing here? Why didn't I do it before, if I could, if I had all of the necessary resources to get myself out of the funk? How much am I in charge of all of this? How much of it is riding the wave of whatever's going to happen?

Susan's perspective here is widening to include the possibility that her experience is influenced by a multitude of factors, including both neurobiology and the choices she makes, and that these things influence one another such that they cannot be neatly pulled apart.[53] Even though at this point she still has not settled on a specific philosophical perspective, she no longer treats the matter in binary terms as either wholly deterministic or wholly a matter of mental control. Importantly, she highlights that what she believes about her situation matters for how she experiences it. Susan now exhibits a psychological resilience that comes with humbly letting go of past rigid categories and accepting blurrier boundaries.

Modifying one's definitions and narratives in this way is not simply a matter of comprehending new propositional claims. Rather, it requires embodied experience. Patients must find that their mental models no longer hold up to scrutiny as they navigate a greater range of circumstances. This can be both difficult and painful, and the uncertainty involved can itself be felt as threatening. Julie above made the point that stepping outside of the familiar patterns of depression is scary. Similarly, Betty described that in comparison with the nihilistic numbness of her depression, "feeling sad is scary for me." However, as patients' ability to participate in a greater

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[53] Murdoch similarly writes, "Do we really have to choose between an image of total freedom and an image of total determinism? Can we not give a more balanced and illuminating account of the matter?" ("The Idea of Perfection," 328-329).

range of situations grew, they experienced a wider range of emotions and reactions that failed to map neatly onto their extant depressive categories. They were faced with complicated feelings that were "foggy" or "gray" instead of clearly black-and-white. With recovery came an increasing ability to differentiate experiences and label them as loneliness, frustration, or disappointment rather than simply depression. For most patients, there was a notable hysteretic effect in which certain measures of recovery outpaced their subjective reports of improvement and their use of this more nuanced language. For this reason, almost everyone shared that family and friends noticed improvements before they themselves did.[54] The propositional typically followed the participatory, a phenomenon we will examine in Chapter 6.

To clarify the difficulty of "deepening our concepts" and the temptations of ego-protective narratives, it is worth exploring one patient's experience in detail.[55] Of all the DBS patients, Lance was particularly resistant to revising his conceptualizations of depression, wellbeing, and autonomy over the course of his recovery, never timid about arguing with the psychiatrists and explicitly rejecting their interpretive suggestions. After three months with the DBS active, even as he and his loved ones documented improvements on a range of measures, from physical activity to emotional range to motivation to engage with other people, he insists that he remains categorically depressed:

> Lance: I really think what I have is depression.
>
> Psychiatrist 2: What if the things that are getting better now maybe allow you to approach in a different way the remaining symptoms with things that you were not able to do before? Like therapy or the techniques from your CBT workbook?
>
> Lance: Yeah, I believe that the DBS is doing something to me. I know it. I feel it. Like, my emotional bandwidth is coming back to the way it used to be prior to having depression. But there's a pure depression component that's very scary to me that's not sustainably receding. And nobody understands the pure depression. You don't get what I'm saying, because you've

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[54] Methodologically relevant for the DBS trial and for this project, this epistemological delay amounts to a sort of third-person privilege where the firsthand updating of mental models is slowed.

[55] From this point forward, I will primarily write in present tense to reflect the ongoing, moment-to-moment nature of Lance's development.

> never had it. It's so inexplicable. None of us can put it into words. But that's the thing that you need to be treating with this study. Treating my anhedonia is fine, but it's throwaway in comparison. I want to have no depression. I'm sorry if I'm overdoing this, but I'm trying to say that it's great that the anhedonia and the emotional bandwidth are decoupling from the depression and getting better, but the depression is depression, and nobody can tell me that I'm actually getting better, because all that matters is that core of depression, the root of the plant.
>
> Psychiatrist 2: And that seems to be a black-and-white thing. Either it's there or it's not?
>
> Lance: Yes. For me it is.
>
> Psychiatrist 2: What we have seen is that most patients get better but not in a black-and-white way. There are symptoms that get better at different rates. And usually the subjective feeling is something that comes last.
>
> Lance: Hmm, that's reassuring to know that, you know. Maybe I'm on a pretty good track and I don't even know it. And I had ten decent days in a row. That's good. The emotional bandwidth is good. And I'm only a few months in, so I don't have to get all worried that I'm not going to get better?
>
> Psychiatrist 1: No.
>
> Lance: Okay. Thank you. That's great.
>
> Psychiatrist 2: In fact, you may continue having some very bad weeks.
>
> Lance: Okay, that's something I would want to know, so that when they do come, I can put it in perspective.
>
> Psychiatrist 2: Yeah, write yourself a note and check it every once in a while: "I will have bad days."

We can see here an example of the psychiatrists drawing on their experience with a variety of patients and offering an alternative narrative that is not only reassuring but also potentially efficacious in itself. Offering hope from a position of authority might nudge Lance to see things differently and assume a new trajectory of recovery. Beginning with this interview, Lance does, in fact, allow for the possibility of a more multifaceted conceptualization of depression—that it is a constellation of symptoms that can disentangle at different rates rather than a single distinct entity that is either present or absent. However, this interview is also the first instance where Lance experiments with the notion of a pure "core of depression" that serves to maintain his diagnosis despite evidence of functional improvement. In some ways, this can be understood as an unfalsifiable narrative that allows him to persist in the sick role, acted upon. While he does gradually accept the narrative that DBS is treating his depression effectively in a piecemeal fashion, in subsequent interviews he often refers back to this "core," treating it in almost mystical or esoteric terms, eluding the effects of any possible this-worldly solutions. This is a fascinating impulse—especially in light of his earlier tendency toward neuroreductionism and vehement biologizing of his condition—but it is reasonably explicable as an ego-protective mechanism. Indeed, in this exchange, he can be seen wielding this concept of "pure depression" as a source of his own authority over the physician-scientists who are attempting to recenter his agency and empower him to take concrete steps that might result in further improvement. This goes to show us that such narratives need not be entirely consistent with a single philosophical theory.[56] Lance simultaneously feeds one narrative that promotes his agency and hope for recovery and another that hedges against them, just in case.

One month later, Lance contends that his diagnosis of depression persists. He points to his lack of motivation to participate in old hobbies like golfing, boating, and skiing, as we mentioned in the last chapter. Facing something of an identity crisis, he returns again to the notion of "decoupling" pure depression from its other traditional symptoms, suggesting that "I think that my 'I feel' has separated from my 'I want.'" He celebrates his restored ability to experience a diverse range of emotions and to increasingly enjoy his life but feels that a toxic splinter of depression remains stuck somewhere inside, inaccessible and poisoning his desire for past interests. His assumption had been "if I were not depressed, I'd want to go golfing again." With some assistance from the psychiatrists, though, he realizes that feelings of "I want" are indeed returning but with

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[56] Compare this with the ethnographic findings of Samuli Schielke on the contextual meanings of people's simultaneous inconsistent beliefs, e.g. in "destiny." See: "Destiny as a Relationship." *HAU: Journal of Ethnographic Theory* 8, no. 1/2 (2018): 343–46. and *Egypt in the Future Tense: Hope, Frustration, and Ambivalence before and after 2011*. Bloomington: Indiana University Press, 2015.

regard to other objects of desire, such as time spent with family or watching good movies. Troubled by the fact that he may no longer be the gregarious and charismatic “badass” he once defined himself as, he grapples with the meaning of his revised hierarchy of desires. Reflecting on his childhood and putting his hobbies in a developmental context, he considers the possibility that he only ever enjoyed golfing when he could play without added pressures—like the need to signal social and class status—that ultimately turned golf into a “chore”: “maybe the only part of golf that I actually liked was spending time with my son.” He decides with the psychiatrists that a prudent path forward might be slowly testing out different pastimes to see what aspects stand out as enjoyable to him and why.

The same way that golf over time came to be tainted with negative valences through concrete experiences, it might be possible to actively engage with his hobbies in a way that makes them meaningful and enjoyable again. Lance sees that recovery is clearly not the simple restoration of past desires with the flip of a switch. Forced to reevaluate this expectation, he is now positioned to engage more deeply with the densely textured layers of meaning present even in a game like golf. It becomes clear to him that recovery won’t just mean liking things he came to hate; it might mean instead the capacity to try things, figure out what is valuable to him, and build healthy habits around those sources of value. In his interview the following week he concludes that:

> The cognitive piece of this whole thing is making me realize that I am the only one who can triage what’s gonna bother me and what isn’t, and I need to try to figure out what today and tomorrow will be what makes me enjoy life versus what did ten years ago. And it’s really hard to let go of some of those things… The best thing I can do for myself is to find those things that I can control that help me feel better and try to start exercising that and then be patient and hope that that which is not in my control will eventually lift.

This mixed project of self-discovery and self-creation he calls “reorganizing my brain,” and, like Susan, he now better appreciates that this process involves things he can control and for which he has responsibility as well as things that are beyond his control—not just one or the other. At this point in his journey, he shifts his conceptual emphasis and embraces a narrative that more prominently centers his agency. In the months that follow, he increasingly underscores his ability to use strategies learned in CBT to feel better. He also focuses his attention on activities that bring him joy, such as playing football with his grandson and medical advocacy work. After reframing his narrative this way and adjusting his behaviors accordingly, he comes to admit that the “core” of depression is finally “receding.” As part of the penultimate interview of his six-month study period, the psychiatrists ask Lance to reflect on his progress:

> Psychiatrist 1: So, 23 weeks into stimulation, what do you think about your mood and depression?
>
> Lance: I don’t think I’m alone in this assumption—I don’t know—but I thought that it was gonna be just a switch and over with. But really you’re in for a lot longer haul to get relief than you maybe intuited coming in.
>
> Psychiatrist 1: What would you tell somebody just starting out with this process? How would you prepare them for the journey to get to where you are now?
>
> Lance: I’d tell them that everybody’s expectations in medicine in general are just that doctors diagnose and cure and give you something that gets you feeling better—maybe in a few weeks in the case of pharmacological substances. You’ve got to take all of those expectations and set them aside and tough it out until this process is working for you. It’s very individualized. It might help you to know that most people get significantly better, but this occurs with very staggered timetables, so don’t put any expectations on your own timetable. Have faith that the clouds are gonna clear at some point, even though not today and probably not tomorrow. And they may clear and then come back again for a while. So, I think the biggest thing I’d say is, “Your expectations are your biggest enemy.” The best thing you can do for yourself is just hang in there and be open-minded.
>
> Psychiatrist 1: In what way can we, the team, be helpful in that early period where you can’t see that yourself?
>
> Lance: I think it’s about managing their expectations. I think that you need to say that everybody’s brain is as unique as a snowflake, and the worst thing you can do is overlay your set of expectations about medicine onto this experiment. Understand that this is not a matter of days, minutes, hours, even weeks. It’s months. It’s only going to hurt them to expect it earlier. Also that some components of their depression—maybe not the most important, like in my case—may come back sooner than the relief of the miserable feeling that’s at the core of depression. You may have signs of improvement you don’t really care about because the core misery is still there. But you need to take those signs as markers that you’re on the right trail—

> signs like caring again and feeling a little bit optimistic again, even if you feel like shit. Those things are measurable changes you can hold onto until the clouds do clear.
>
> Think of the brain as being completely snowed over and not plowed. And we don't know how much snow is on your brain compared to the next brain, but we're gonna start the plowing with this surgery. And depending on how much snow is on your brain, it's gonna take a while until we get done opening the road up for your impulses to get to where they need to go to restore normality. And everybody's snow and plowing are different. So that's what it's about—it's not about giving a pill or flipping a switch and it's all better. Thinking that way is counterproductive.
>
> Psychiatrist 1: So you're describing a process that takes time—somewhat variable per patient but for everyone longer than they hope or expect. Can you imagine someone saying, "Okay, then I'm just gonna wait it out and mark the days off on the calendar"? Would that work? Or, what is the role of the person? What's your role in feeling better?
>
> Lance: I think cognitive therapy is another component you have to try hard to exercise like a muscle—tools to maximize the efficacy of the mechanical changes instigated by the DBS. So you're working on the mechanical side, and the cognitive therapy piece is trying to reeducate us on the best ways to think from today forward in order to maximize what this does and also to prevent setbacks that could be avoided. I think the cognitive therapy is just as important as the operation itself, just as much as the DBS. Everybody that walks in the door as a new patient, just as they have a preconceived notion of medicine, so, too, do they carry with them a set of learned behaviors that at one time may have been necessary in their life that have become entrenched in their brain. Patients ought to realize it's like yin and yang, if you will, of DBS and the more cognitive pieces. And they may vary in terms of how much of each is needed for a certain patient, but they're both vital pieces to embrace and take seriously and work on. This requires work—reading what the therapist says to read, practicing what they tell you to practice, all those things.
>
> Psychiatrist 1: I imagine there are times, even if you push yourself, that you don't want to?
>
> Lance: Yeah, of course, but I mean who wants to exercise? It's the same thing. You exercise because it's good for your body and so, too, should you exercise your brain. It's important to remind yourself of the bigger picture.

Feeling well on the way to recovery, he reflects on the distinct trajectory of his understanding as it moved from black-and-white definitions and technosolutionism to an appreciation of depression as something multidimensional that requires intervention at multiple coordinated levels over time. He also stresses the therapeutic role of these updated expectations and beliefs. The stories we tell ourselves influence not only how we subjectively experience a given situation but also whether or not a specific intervention will work. This description of what we might call "narrative efficacy" is a good example of the "meaning effect," as it is known in cognitive science literature (and which includes the placebo effect as another subtype).[57] Such a mechanism also seems to be what underlies "symbolic healing," a concept popularized by anthropologist Daniel Moerman referring to the power of symbols and subjective experience to influence one's therapeutic outcomes.[58] More on the meaning effect, attention, and autonomy below.

It would have been extremely convenient if this interview had been Lance's last, the perfect denouement to his narrative arc. Alas, it is rare that patients experience complete remission by the end of this initial six-month phase. In the months that followed, he would continue to face dips in his mood and frightening moments that seemed to him to signal a relapse into depression. For many patients, Lance included, there are persistent worries that the device will either never reach full effectiveness or that it will stop working entirely. At times, the reappearance of these feelings in response to stressors can destabilize efforts to establish new thought patterns and can unsettle the belief that one remains on the path to wellbeing. (In the next chapter, we will explore additional concrete steps taken to overcome this obstacle and build confidence in one's recovery.) Luckily, the DBS team continues to see patients—and collect data—beyond the conclusion of the primary trial period. This has proven extremely important, as most of the patients are not local to the Atlanta

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[57] Though he focuses more on "retrospective narratization," Arthur Kleinman offers a similar account of narrative's symbolic power to shape illness experiences in his classic book, *The Illness Narratives* (50-51). He later adds that harnessing the placebo effect toward enhanced therapeutic outcomes is "the essence of effective clinical care" (245). For a more recent, book-length exploration of this position, see Ofri, Danielle. *What Patients Say, What Doctors Hear*. Boston: Beacon Press, 2017.

[58] Moerman, Daniel E. "Anthropology of Symbolic Healing." *Current Anthropology* 20, no. 1 (1979): 59–80. I here use the phrase "narrative efficacy" as an allusion to "ritual efficacy" wherein symbolic or meaningful acts can effect ontological changes in the life and experience of participants. See Sax, William, Johannes Quack, and Jan Weinhold, eds. *The Problem of Ritual Efficacy*. New York: Oxford University Press, 2010. See also the recent volume edited by Sarak Coakley, *Spiritual Healing: Science, Meaning, and Discernment*. Grand Rapids: Eerdman's Publishing Company, 2020. On ritual efficacy as it relates to that which exceeds propositional meaning (and drawing on the thought of Levinas), see: Seeman, Don. "Ritual Efficacy, Hasidic Mysticism and 'Useless Suffering' in the Warsaw Ghetto." *The Harvard Theological Review* 101, no. 3-4 (2008): 465–505.

area and face triggers, new and old, when they return home and begin reintegrating into their normal lives. In fact, without the more closely controlled environment of the trial setting and the weekly meetings with psychiatrists and therapists, the return home is itself a noted point of difficulty for many patients.

Met with the challenges of reentering into his old routines and of life in general, Lance often fell back on past conceptualizations of illness and wellness that were more characteristic of his depressive cognitive biases. A recurring pattern emerged in which a precipitating event would evoke negative emotions, and he would default to labeling it "depression," seemingly forgetting the conceptual progress he had made to that point. In some interviews, he describes these dips as "coming out of nowhere" but in the next breath enumerates incidents and stressors that very likely contributed to them. One of his first major endeavors after the initial trial period was a vacation with his family to Asia. Upon his return, he pronounces to the psychiatrists that he felt practically cured in terms of his ability to keep up with the social and physical demands of his itinerary, but he declares that he still could not shake that deepest "core" of his depression, citing as evidence the exhaustion that he experienced while traveling. He also shares that he did not actually enjoy any of the sight-seeing or adventuring, adding, however, that "I'm not sure I would've enjoyed it even if I wasn't depressed." The idea of visiting the Great Wall of China or other historical sites was not the type of thing that typically appealed to him anyway. A spirited exchange follows, in which the psychiatrists revisit Lance's evolving definitions of depression and wellbeing:

> Psychiatrist 1: What you've just described sounds like extended periods of being functional with fleeting dips in your mood that you bounce out of…
>
> Lance: Yes, that's right.
>
> Psychiatrist 1: So, if you were to take a broader view, where you stood far enough back that you don't notice the nature of specific moments, but instead just take in the overall gist of things, is this "wellness" or "depression" that you're in right now?
>
> Lance: I don't think that's a good question, because I don't think it helps me to say, "This is wellness." It troubles me that there are still black pixels in the picture if you zoom in, if I can put

it that way. It’s discouraging that I can have such profound dips equivalent almost to the worst depression that are exaggerated in my mind because I’m worried that I’m having a relapse.

Psychiatrist 3: It might be helpful to think about this using different labels, especially because of the timing of things. For doctors, the definition of depression is not how horrible it feels, but the fact that it has no variance, that the symptoms are felt every day for most of the day for a minimum of two weeks. That’s called an “episode.” And I don’t disregard your dips that you recognize as being in a bad place, but I’m focusing on the fact that they’re not lasting. So it might be useful to reframe what you’re experiencing, because that’s not “depression” the way we look at it or the way the DBS is designed to treat. It may be that you’re helping us appreciate that in certain people these scary moments can happen, maybe when they push themselves really hard like you did on this trip, but that you don’t get stuck, and the absence of being stuck is what we aim for with this treatment. It’s like a clinical definition rather than an existential one.

Psychiatrist 2: In fact, if a patient were to come to us considering DBS and explained that they’re doing fine most of the time but with these terrible moments, I would tell them that DBS is not the thing they need. But, again, this is not discounting that these might be very severe episodes.

Lance: Right, okay.

Psychiatrist 2: It sounds almost like you’re experiencing a “migraine of the mood,” but not a full relapse into depression.

Psychiatrist 1: You mentioned the fear of having a relapse, which is something we’ve heard from other people too. Could you tell me more about that fear of the dip or of the “black pixels”?

Lance: Yes, I think it may be a cousin of Post-Traumatic Stress Disorder. Like, if you lived in that horrible space for years and crawled out of it. To me, there is nothing worse than depression, and I was stuck there for a long time. And to have gained distance from that feeling and to get a stable foundation… if all of a sudden you feel back like you’re where you were, it’s really frightening.

Psychiatrist 1: Yeah, that makes sense. Has anything helped with how you handle these dips?

Lance: Yeah, I started writing things down more so that I can pay attention to the pattern of recovery and reassure myself, like “You felt awful at 2:00 PM, but now it’s 8:00 PM and you feel okay.” And that works really well for the most part, but I still have to find a way to discover for myself that the horrible visceral core feeling of depression isn’t there. I’m not gonna be able to just listen to you say that I’m in remission and believe it; I still have to find a way to convince myself.

Psychiatrist 1: Absolutely. Yes, that’s a process that takes time, and as you get through more of these dips you’ll get accustomed to the fact that they don’t stick. Keep your energy forward-

> oriented so that you don't ruminate on them. You are very much on track in the recovery process based on what we've seen with other people.
>
> Lance: You have no idea how helpful it is to hear that. I can't thank you folks enough.

We again see the importance and the potential of "narrative efficacy" during this liminal period of recovery.[59] Relabeling dips like these in light of their situational context and relative to other patients' similar experiences modifies how they are interpreted from a first-person perspective.[60] Concepts, functioning as mental affordances, provide a foothold for Lance to maintain his more hopeful position and continue climbing towards recovery. Whereas we earlier saw him wielding the concept of depression's untouchable "core" against the psychiatrists, here they are offering him alternative concepts—"migraine of the mind," for instance—that help him weather the more difficult moments. These concepts help free him from the simplifying, totalizing narratives that served him as defense mechanisms in depression.

Nearing the two-year mark, Lance felt that he had finally conquered his illness and achieved remission. It was at this point, though, that the exchange with which we opened this chapter occurred. Within a span of weeks, he is hit with three consecutive blows: an explosive argument with his son, a years-long work project falling through, and the death of his beloved dog. Understandably reeling, he again defaults to labeling his experience "depression," though in conversation with the psychiatrists he recognizes that his conceptual boundaries have blurred as normal negative emotions are present in the mix. We also find out in this interview that, concurrently with all of these developments, Lance's personal psychiatrist had decided to make an

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[59] On liminality and the process of "becoming," anthropologist Victor Turner famously argued that narrative and interpretation are crucial—"reclassifications of reality" take place through the use of sense-making symbols. See: Turner, Victor. *The Ritual Process: Structure and Anti-Structure*. 1969. Reprint, Ithaca: Cornell University Press, 1991: 128.

[60] For an excellent book-length analysis of this phenomenon, see: Moerman, Daniel E. *Meaning, Medicine, and the "Placebo Effect."* New York: Cambridge University Press, 2002. On the effects of diagnostic categories and terminology for patient outcomes, see also: Brody, H., and D. B. Waters. "Diagnosis Is Treatment." *The Journal of Family Practice* 10, no. 3 (1980): 445–49.

adjustment to his medication regimen that was more drastic a change than the DBS team would have recommended.[61] All of these factors combined, it is not surprising that Lance would turn to the familiar vocabulary of depression. Yet, we see that the designation fits uncomfortably. Its rigid and one-dimensional criteria no longer suffice to capture his now “out-of-focus” and “strange” experience. He feels “lost.” To help bring things back into focus, he needs the mental models that better map his more complex post-DBS phenomenology to be made more convincing and real again.

Lance’s final follow-up interview made it clear this “real-making” had happened in the intervening years.[62] In the immediate aftermath of his two-year interview, the psychiatrists readjusted his medications and his DBS voltage settings. Within a matter of weeks, he was back to feeling mostly recovered in the sense that he could again more easily train his attention outward and resume the work that he had begun as part of the trial’s CBT sessions. Over the years, he has built on insights he had begun to gather with the study’s therapist, “deepening” his understanding, in Murdochian terms. Lance is now better able to put his depression into a developmental context, and his conceptualizations of depression and wellbeing differ greatly from his “survival mode” categories. In his effort to convey the numerous factors that played a role in the origins of his depression, he related to me an elaborate life narrative that touched on his upbringing, his history of trauma and challenging relationships, substance use, his family’s genetic profile, and much more. Evidently, after a lifetime reflecting on the etiology of his illness, the more nuanced and multifactorial account has become real for him. He emphasized that his depression had a history—a number of specific cognitive and behavioral patterns contributed to and reinforced “survival mode”

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[61] Patients frequently ask about whether DBS will free them from the need for medications, but the research team has consistently found that, rather, DBS somehow makes the brain more responsive to medications such that they are felt finally to be effective. It is rare (with the occasional exception) that TRD patients find themselves capable of completely dropping their pharmaceutical treatments after getting DBS. This is discussed more in the Conclusion.

[62] T.M. Luhrmann masterfully analyzes “real-making” processes in her books *How God Becomes Real: Kindling the Presence of Invisible Others* (Princeton: Princeton University Press, 2020) and *When God Talks Back: Understanding the American Evangelical Relationship with God* (New York: Vintage Books, 2012). I will draw on this notion again in Chapter 6.

until he got stuck in it. Where once his biological framing suggested that his depression was random, unprovoked, signifying and teaching him nothing, he now fits it into a meaningful narrative. Lance likewise emphasized that his recovery has a history as well—that it requires intentional steps to reinforce healthier habits of mind and body for which he is responsible. By "practicing" wellness, he came to enact it. In the end, wellbeing does not at all look to him like the caricature of happiness envisioned from within his depression. It is decidedly not being "invulnerable to low mood" or being able to independently pursue whatever preferences might occur to him without obstacle. Rather, Lance articulated a vision of flourishing obtainable despite (and made meaningful by) constraints, vulnerability, and dependence on others.

His mature vision was thrown into relief by his response to a "big curve ball," as he put it—a new diagnosis. He explained to me that he knew his depression no longer controlled him, because he was able to handle this new affliction with grace:

> I developed Spinal Cerebellar Ataxia, which is a terrible debilitating disease, so my ability to move my hands, my legs, my swallowing, everything is going out on me. So that's another challenge, but despite that, I think most people that got this diagnosis would be like really down, hit hard, but I've not been. People have asked me, "If you could choose between depression and this journey toward a wheelchair which would you choose?" I say "the wheelchair" like that (*snaps*). Severe depression is that bad. It's a black hole in your soul that just sucks inward and won't let go. It makes you incapable of feeling or doing anything.
>
> I don't know how I would be here if I was like I was before. It was such a miserable thing to wake up to a nightmare every day. It was more like being dead. That's how I was, but this is me now. I'm very lucky to have a great wife and two great kids and brothers and sisters that are crazy about me, thank God, and who have always cared about me. I'm very lucky about that. And I try to continue to be the best possible friend to my group of guys. I'm always there for them. That's my purpose—father, husband, and friend. That's what's important to me. So I get up each day and live my life the best that I can with what's left of my body.
>
> And I think that my journey through depression certainly gave me tools to deal with this challenge and just to try to live mindfully, grateful for every moment. I am having cognitive problems, like I can't multitask anymore, and my eyesight and hearing are going, so I live in a body that's not real fun right now, but I'm okay. I'm okay. I am so blessed with (*chokes up*)… the people in my life, so I'm still happy. I am. I'm happy. And, at the same time, I'm angry and frustrated that after all that other stuff, I had to get this when I thought I was finally gonna get a

> chapter with some bliss that I hadn't seen since high school. But you know, you have to put on your big boy pants at those moments and just keep going. And it's okay to be frustrated about it, too… I'm a little choked up, because I'm grateful that my kids haven't chosen to just move on, and they still want me in their lives… and my grandkids, and my wife. If anything, they've all stepped up (*cries*). It's just very humbling…
>
> I think if I could tell anybody anything it would be that, no matter what, everybody's gotta maintain balance in their life of what they love to do as well as what will make those who depend on them happy. I had a very toxic imbalance for a very long time. So if I could go back and do it again I would never stay in certain situations and I would never do some of the things that led me that way. But it is what it is now. Life is a mystery and a gift, and I get to keep going.

Reflecting on his journey from childhood innocence to corporate ladder climbing to treatment-resistant depression and his experience with DBS, Lance now describes human flourishing in terms of living well within a network of normative claims. Being more attentive to these ethical affordances provides him with the answers to what he earlier called his "huge questions." His sense of autonomy gains substance from his relationships of obligation. Furthermore, he trusts his emotions. He is able to experience negative affect without automatically assuming that it indicates incapacity. In addition to being far enough removed from his depression, this is also because his emotions now have an "aboutness" that maps onto the real world around him and reflects his revised hierarchy of values.[63] His sadness, anger, and suffering on this side of depression now have meaning and make sense. Lance's experience illustrates that DBS patients need to aspire to more complex mental models, not for complexity's sake but to transcend the simplifying ego-protective distortions in which they are trapped. Receptive to more of reality, they can then orient themselves compass-like to the magnetic pull of the good in a way that unifies their experience as they strive for harmony with the world.

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[63] Charles Taylor, deeply influenced by Murdoch, described certain emotions as "subject-referring" in that they "incorporate a sense of what is important to us in our lives as subjects" and reflect our orientation to the good. See his account in *Human Agency and Language: Philosophical Papers 1*. Cambridge: Cambridge University Press, 1984: 54-60.

Narrative Efficacy

Bioethicists often argue about the importance of disentangling the effects of a given treatment from potential placebo effects that might also influence outcomes.[64] In the case of DBS for treatment-resistant depression, however, emerging research indicates that this might prove impossible. Its mechanism of action involves the same neural circuits as the placebo effect. In other words, part of the treatment itself appears to derive from the "meaning effect," or what we above labeled "narrative efficacy."[65] Murdoch's philosophy of language and theory of attention sought to demonstrate that the concepts and categories we have at hand shape our experience of the world. These may emerge from our own neuroses or from the messages absorbed from our surrounding cultures.[66] DBS patients' therapeutic experiences seem to corroborate that account. We saw above that two simplifying interpretations of depression predominated in their early interviews: a biologizing model that reduced depression to a "chemical imbalance" or "neurological injury" and a willpower model that framed depression as a moral failing for which they felt overwhelming guilt. Both of these reductionistic narratives fail to do justice to the complexity of psychiatric illness. Subscribing to one or the other of them precludes thinking about depression in more realistic terms

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[64] Mollica, Adriano, Rachel Greben, Marieve Cyr, Jay A. Olson, and Matthew J. Burke. "Placebo Effects and Neuromodulation: Ethical Considerations and Recommendations." *Canadian Journal of Neurological Sciences* 50, no. Supplement s1 (2023): s34–41.

[65] Burke, Matthew J., Sara M. Romanella, Lucia Mencarelli, Rachel Greben, Michael D. Fox, Ted J. Kaptchuk, Alvaro Pascual-Leone, and Emiliano Santarnecchi. "Placebo Effects and Neuromodulation for Depression: A Meta-Analysis and Evaluation of Shared Mechanisms." *Molecular Psychiatry* 27 (2022): 1658–66. See also: Mayberg, Helen S., J. Arturo Silva, Steven K. Brannan, Janet L. Tekell, Roderick K. Mahurin, Scott McGinnis, and Paul A. Jerabek. "The Functional Neuroanatomy of the Placebo Effect." *American Journal of Psychiatry* 159, no. 5 (May 2002): 728–37. Interestingly, greater treatment-resistance in depression has also been associated with lower placebo responsiveness: Brunoni, André Russowsky, Mariana Lopes, Ted J. Kaptchuk, and Felipe Fregni. "Placebo Response of Non-Pharmacological and Pharmacological Trials in Major Depression: A Systematic Review and Meta-Analysis." *PLoS ONE* 4, no. 3 (2009): 1–10.

[66] Unsurprisingly, the neoliberal ethos of "expressive individualism" was a major influence on patients' initial conceptualizations of recovery. We have now seen that some of them had to overcome this influence to see real progress. As Murdoch wrote, "Modern industrial mass-productive society impairs our power to perceive." (*Metaphysics as a Guide to Morals*, 377). For a thoughtful examination of the ways in which the logic of the market can distort our desires and the ethical implications this phenomenon, see Alasdair MacIntyre's *Ethics in the Conflicts of Modernity: An Essay on Desire, Practical Reasoning, and Narrative*. New York: Cambridge University Press, 2016.

and responding to the world accordingly. When stuck viewing the world in such terms, certain ethical and epistemological affordances become obscured, and patients' sense of possibility is impoverished.[67]

With time, though, DBS patients grew to appreciate multifaceted conceptualizations that were more conducive to their recovery, recognizing the ways in which their experience was a confluence of factors both under and out of their control. With help from the psychiatrists and psychologists, patients were empowered to reframe their situations and update their mental models over time, escaping their tendencies to think in binary terms of absolute control or no control at all and absolute suffering or none at all. Although many patients began their journeys with assumptions that the DBS would function as a technological quick-fix, their recovery in the end depended upon a reinterpretation of their sense of autonomy as a cultivated capacity for attunement to the world and the needs of others. The DBS might be instrumental in creating the conditions for their autonomy, but its long-term effects work through the narrative recentering of the patient's responsible role. As part of their recovery, patients had to embrace a deeper, more demanding concept of autonomy.

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[67] This also corroborates Thomas Csordas's methodological claim that "Critical to a cultural phenomenology is a stance wherein the task is not simply the interpretation of cultural meaning *associated* with dysphoric affect and depressive illness, but a recognition that dysphoric affect is inherently *shaped* by those cultural meanings." ("Cultural Phenomenology and Psychiatric Illness," 128).

Chapter 6: “Rough Patch” – Practices and Participation

> Psychiatrist 1: You said in the last few days you haven't been sitting in your normal chair?
>
> Toni: Two whole days. I've been sitting in a different seat, just to get out of that chair. That's a sign.
>
> Psychiatrist 1: Is that a conscious decision? What is that a sign of?
>
> Toni: It’s a sign that I'm not incapable or at the mercy of the way I'm feeling—that if I want to get up and do something else besides sit there, then I have a small amount of autonomy, I guess. I can decide, “Okay, I'm not going to sit here today. I'm going to sit over there today.” And that's sounds insignificant, but it really does mean something. Because if I'm not there, then I have different types of activity that I can engage in—not just bound to the computer, staring. When I move around, then I'm able to do more stuff and challenge myself to do more stuff. Like, I've been keeping the apartment in order, keeping everything picked up. That alone is something, you know. Just getting up, making sure the bed is made every day. I hung up some stuff that needed to be hung up. I got some stuff together to take to the consignment shop. That's a big thing. I had to pull all that stuff together. So, I did that. Yeah.
>
> Psychiatrist 2: So, what do you think the DBS has been doing over the last 15 weeks that it’s been on? What has been your experience?
>
> Toni: I don't know. It's been a roller coaster, like an up-and-down kind of thing. A lot of unpredictability and inconsistency. It's like I had this improvement early on, and I was moving about and doing stuff that I hadn't done in a couple years around the house. But then that was kind of short-lived. Then the emotions and pain became more intense, and that was kind of all over the place, I guess. I don't know. It just seems like a lot of instability.
>
> Psychiatrist 2: Is it similar to the way you’ve felt when a medication starts kicking in?
>
> Toni: I guess… But as far as the initial response—like when it was turned on in the operating room—that's not like when I first get improvement from meds. Not at all. It was almost out-of-body. No, that's not like it felt when I was having a response to an SSRI. Totally different.
>
> Psychiatrist 2: How do you feel about the next few months coming up?
>
> Toni: I don't know. I just hope it keeps getting better instead of changing so much. I'm hoping that where I am now continues instead of going forward and then back like it has been. And I can’t help but feel worried, since the last time I felt at this level, my meds stopped working and I crashed pretty hard.

> Psychiatrist 2: Is there an element of not wanting to accept that you're feeling better because you may crash again?
>
> Toni: To be honest, yeah.
>
> Psychiatrist 2: That's understandable.
>
> Toni: Because when I felt okay right after surgery, it didn't keep getting okay. And when I come here and you guys say, "Well, we can see something, we're seeing changes," I don't know what you're talking about. But I'll just take your word for it.
>
> Psychiatrist 2: We have noticed changes even today in the way you're carrying yourself. You look, you know, refreshed.
>
> Toni: I know, today I definitely do—I feel fresher today, definitely. Better than last week.
>
> Psychiatrist 2: What are your plans for Christmas?
>
> Toni: I'm probably going to go to my mom's and then visit my grandmother with my brother… What do you think the Christmas holiday is going to be like for me?
>
> Psychiatrist 2: What are your expectations? We're psychiatrists. We never answer, we just ask back (*laughs*).
>
> Toni: Yeah, you do ask a lot of questions (*smiles*). But I understand that's how you have to do things. I hope Christmas is better than Thanksgiving because Thanksgiving was horrible. I do think it will be better, because I'm planning on going the day after Christmas when there won't be as many people. That will be less stressful and more doable for me. Baby steps, you know?

Expectations shape our experience. Our discussions of "narrative efficacy" and predictive processing have examined this phenomenon closely. However, DBS patients' interviews also consistently speak to specific ways in which the relationship between prediction and subjectivity is more complicated. As we will see in much greater detail in this chapter, the influence is bidirectional. Experiences shape our expectations. Three months after having her DBS activated, Toni here demonstrates that the slightest change of environment—simply starting her day in a different chair—can open up new horizons of possibility. Stepping away from the computer where she had spent daily eternities numbing herself, she begins to construct new routines that strengthen her growing sense of autonomy. Each small step that she takes lends further credence to a more empowering interpretation of who she is and what she is capable of, proving to herself that she is no longer "at the mercy" of her depression. Toni's experience mirrors that of nearly every DBS patient as they come to appreciate the importance of slow, steady habituation for their recovery. While the first weeks after surgery often include the sudden restoration of sensitivities, sometimes enjoyable and sometimes disorienting, the months that follow have been dubbed the "rough patch." Patients must learn to manage their heightened affectivity in practice and in context. Over the course of this liminal period, patients work on remodeling their desires and cultivating healthier cognitive and behavioral habits in pursuit of those desires. Chapter 5 focused on the epistemological journey of developing new mental models that afford a better grip on reality. Our current chapter explores the necessarily embodied and embedded nature of this endeavor. Building up new mental models, otherwise known as learning, occurs through interaction with our material environments and with particular others.

If our practices alter our perceptions and our perceptions alter our practices, then how are we to know that we are not reinscribing mistaken interpretations? How can we tell if we are deluding ourselves? As Iris Murdoch has shown, self-protective fantasies are ever tempting and can easily distort our experience of reality. Over the course of her philosophical career, she would return to the challenge of this hermeneutic circle.[1] In her early work, *The Sovereignty of Good*, she wrote, "It is in the capacity to love, that is to *see*, that the liberation of the soul from fantasy consists"—the "realism of compassion" for the other serves as a check on our thinking.[2] Later work would shift emphasis slightly, clarifying that not only *eros* but also responsiveness to duty spurs reflection about the veracity of one's narratives.[3] Both formulations share the claim that critical distance,

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[1] She wrote, for instance, in her later work, "We cannot distinguish so easily between the fruit of experience and experience itself" (*Metaphysics as a Guide to Morals*, 219).

[2] Murdoch, "On 'God' and 'Good,'" 354.

[3] Murdoch, *Metaphysics as a Guide to Morals*, 302. For a helpful account of this shift in her work, see: Antonaccio, *Picturing the Human*, 155-163. Note also that in *Totality and Infinity*, Levinas expressed a worry about the ambiguity of *eros* and the risks of treating it as the basic motive force underlying ethics. Motivated by love, one may be driven towards fusion with the other, rather than respecting their alterity. Levinas would also undergo a

transcendence of our status quo, is inspired by the presence of another. Murdoch develops this metaphysical picture with analyses of specific embodied practices that can grow our ability to be affected by exteriority. Art, nature, prayer, and social interaction can all open our eyes to aspects of reality that exceed or correct our current understanding. To escape the distortions of our ego and more clearly grasp what is true and good, we need to appreciate that our mental models are constructed out of active, bodily engagement with reality. The experiences of DBS patients reveal the power of certain practices to disrupt, refine, or reinforce narratives through which they understand and enact their recovery. As we will see, there are ways of intentionally coordinating action and understanding that increase the probability of escaping depressive distortions and achieving a healthier way of being.

Levinas is one of the most revolutionary philosophers to write on the ethical forces that free us from ourselves—what Jacques Derrida called an "Ethics of Ethics"—but Murdoch more pragmatically emphasizes the everyday ways in which we must effortfully cultivate our sensitivity to those forces.[4] In addition to her deep theorizing about consciousness, transcendence, and the origins of normativity, she also guides us through the task of self-formation, explaining that "our ability to act well 'when the time comes' depends partly, perhaps largely, upon the quality of our habitual objects of attention."[5] This theme of habituation has pride of place within many contemporary virtue ethicists' accounts of practice, but Murdoch uniquely emphasizes the need for practices that not only reinforce and substantiate specific narratives but also strategically disrupt them.[6] She writes: "I certainly want to suggest that the spiritual pilgrimage (transformation—

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shift in emphasis, more willing to speak in terms of love in his later thinking. It is interesting to observe that Levinas and Murdoch both evolved in their thinking about the relationship between love and duty, arguably becoming closer to one another on this point.

[4] Derrida, Jacques. *Writing and Difference*. Translated by Alan Bass. 1967. Reprint, London: Routledge, 2005: 138.

[5] Murdoch, "On 'God' and 'Good,'" 345.

[6] See Pamela Hall's article on Murdoch's corrective approach and how it might augment traditional virtue ethics frameworks like that of Alasdair MacIntyre: Hall, Pamela M. "Limits of the Story: Tragedy in Recent Virtue Ethics." *Studies in Christian Ethics* 17, no. 3 (2004): 1–10. It is worth noting that in MacIntyre's latest book, *Ethics in the Conflicts of Modernity: An Essay on Desire, Practical Reasoning, and Narrative*, he does incorporate a transcendent

renewal—salvation) is the centre and essence of morality, upon whose success and well-being the health of other kinds of moral reaction and thinking is likely to depend."[7] A balance must be struck between critically questioning our models and building up better alternatives (or at least refinements) to them. As we discussed in the previous chapter, it was one thing for Susan to pay lip service to more nuanced accounts of self and autonomy and another for her to "make them stick" such that she could rely on them to avoid falling back into depressive cognitive biases. Lance, too, shared that he needed to "convince himself" that his more complex vocabulary was true and that his "new self" was real.

We have seen already the importance of appropriately nuanced and textured descriptions for understanding the world, but escaping from "survival mode" is not merely a matter of language. Making narratives stick and convincing ourselves of new interpretations requires concrete "real-making" practices. In fact, the majority of what we learn is not strictly articulable.[8] Most of our mental models function more like "muscle memory," a type of knowing that is more navigational than propositional. Murdoch writes:

> As Plato observes at the end of the *Phaedrus*, words themselves do not contain wisdom. Words said to particular individuals at particular times may occasion wisdom. Words, moreover, have both spatio-temporal and conceptual contexts. We learn through attending to contexts, vocabulary develops through close attention to objects, and we can only

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external standard that can be productively disruptive of ontological categories (230-231). To see his earlier argument in favor of the narrative unity of a life, see the groundbreaking *After Virtue: A Study in Moral Theory* (Notre Dame: University of Notre Dame Press, 1981).

[7] Murdoch, *Metaphysics as a Guide to Morals*, 367.

[8] On the limits of language, Murdoch draws our attention to the "vast extra-linguistic reality" (*Metaphysics as a Guide to Morals*, 228). In a later chapter, she wrote, "Exceptional persons, such as mystics… who 'see God' cannot express what they saw. Nor can Plato's pilgrim describe the sun." (306).

> understand others if we can to some extent share their contexts. (Often we cannot.) Uses of words by persons grouped round a common object is a central and vital human activity.[9]

She later adds that the "living" nature of language is "something which we forget at our peril."[10] What we've called "attunement" to the world is both a linguistic and sub-linguistic phenomenon, conscious and subconscious.[11] As we have seen, certain conceptualizations can support or subvert efforts to become more aware of reality, including the reality that one is no longer ill, for instance.[12] DBS patients discover that healthier mental models are only achieved through practices and participation, an embodied process of habituation. New mental models must be made to feel real and relevant.[13]

One of the doctors involved in the trial recommended that patients "repopulate" their "gray area" experiences so that they can learn to see things in ways that are more nuanced and less black-and-white. Speaking to a patient who was struggling to understand the need for regular "homework" as part of her recovery, the doctor explained:

> You're used to things being black-and-white. Depression trains you to think that way. But you have to repopulate the gray area, all those in-between memories. When the basic scientists talk about your hippocampus, your memory areas, becoming small in depression and then growing

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[9] Murdoch, "The Idea of Perfection," 325. She also wrote that "'Thoughts'… have, as it were, a life and dynamic of their own. They are not always, or not altogether, under our conscious control. They emerge unexpectedly, they become hazy or clear for no apparent reason. They display a sense of direction which may go beyond what the conscious mind can account for." ("Nostalgia for the Particular." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 43–58. New York: Penguin, 1997: 48).

[10] Murdoch, "The Idea of Perfection," 326.

[11] Lisa Feldman Barrett refers to this relationship as "conceptual combination"—having, using, and developing a concept without a strictly propositional definition or a word with which to label it (*How Emotions Are Made*, 105).

[12] In 2010, a research team led by Ted Kaptchuk famously showed that open-label (non-deceptive and non-concealed) placebos can be effective due to ritual of taking it, demonstrating the powerful relationship between meaningful concepts and practices that reinforce them: Kaptchuk, Ted J., Elizabeth Friedlander, John M. Kelley, M. Norma Sanchez, Efi Kokkotou, Joyce P. Singer, Magda Kowalczykowski, Franklin G. Miller, Irving Kirsch, and Anthony J. Lembo. "Placebos without Deception: A Randomized Controlled Trial in Irritable Bowel Syndrome." *PLoS ONE* 5, no. 12 (2010): 1–7.

[13] On the role of rituals and social behaviors to shape mental states and belief structures, see: Geertz, Armin W. "Whence Religion? How the Brain Constructs the World and What This Might Tell Us about the Origins of Religion, Cognition, and Culture." In *Origins of Religion, Cognition, and Culture*, edited by Armin W. Geertz, 17–70. New York: Routledge, 2012: 45-48.

> as you get better—it takes a while for the new cells to develop and work. And you need experience and context for it to happen. So that's a process, and it's almost like you should just do stuff even if it doesn't feel right yet. This is what we mean by "homework." Just make an effort. You don't have to run around every day, but maybe make an appointment once a week where you'll have lunch with a friend or go and walk somewhere. Give yourself activities and just do them. There is something reinforcing about it. Even just a couple things that are not super high-stress, like making a tuna sandwich or walking around the block, really small stuff just to get out of the habit of having it feel like anxiety to do something and get into the habit or get used to the feeling of, "I had a plan, I did it, it went well." It doesn't necessarily have to be pleasurable to start. It has to be a habit—you do it because you do it. It will start off a little rusty, but with time it'll start to feel right. Eventually, the fact that you can motivate yourself to do it regardless will start to feel good.

While descriptive language is certainly crucial, recovery from depression requires lived experience as well, so that patients' developing categories can be made resilient in the face of reality's messiness and uncertainty. DBS restores patients' sensitivity to outside stimuli, but such an influx of "prediction error" can feel at first more like bombardment. Getting used to this receptivity takes time. Several patients described the outcome to which they aspire as a golden mean between sensitivity and effectiveness. We earlier heard this from Susan regarding her post-surgery "chattiness." Similarly, Julie desired expression and understanding through music, but also wanted to not be overwhelmed by its power. In an image that stood out to me as representative of this need for balance, she shared that she needs to redevelop her callouses:

> Julie: I actually pulled out some music and played a couple of chords, but I started and went, "Ow!"—I don't have any callouses anymore, so I better take that slow.
>
> Psychiatrist 2: You need to blister your fingers a little bit again?
>
> Julie: Yeah, it actually feels good though when you do that. It's like you're getting someplace, making real progress.

In previous chapters, we explored the phenomenon of the world opening up as patients' senses returned with reports of heightened perception of sights, smells, tastes, and emotions. We will now turn to the process of capitalizing upon those restored sensitivities, using them strategically and longitudinally to establish new cognitive patterns, overwriting "survival mode" with a more resilient, confident, and purposeful habitus.

Unselfing

Before introducing her parable of M and D, Iris Murdoch mentions almost in passing that she was first tempted instead to analyze an example of religious ritual to illustrate her theory of attention. Ritual is a useful paradigm for grasping the relationship between our complex mental life and observable actions, the ways in which an embodied behavior both "occasions and identifies an inner event."[14] Participation in certain practices can contribute to the "defeat" of our ego and its consoling, deceptive fantasies.[15] In the end, she elected not to focus on outwardly observable behaviors in her M and D story, but in later works she frequently returns to the topic of "techniques for the purification and reorientation of an energy which is naturally selfish, in such a way that when moments of choice arrive we shall be sure of acting rightly."[16] Her ethical focus was the transformation of consciousness, but she recognized that this is typically only possible through a process of embodied habituation.

On Murdoch's account, strategies for achieving freedom from the self—true autonomy—are "one of the main problems of moral philosophy."[17] She elsewhere writes "anything which alters consciousness in the direction of unselfishness, objectivity and realism is to be connected with

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[14] Murdoch, "The Idea of Perfection," 312.

[15] Murdoch, "On 'God' and 'Good,'" 342.

[16] Murdoch, "On 'God' and 'Good,'" 344. Maria Antonaccio refers to these as "Techniques of 'Unselfing'" and helpfully dissects them in *Picturing the Human,* 135. There are parallels here with the later work of Michel Foucault, in which he shifted from thinking about how subjects are shaped by systems of power toward theorizing about techniques for self-formation, what he called "technologies of the self." ("Subjectivity and Truth." In *Ethics: Subjectivity and Truth*, edited by Paul Rabinow, translated by Robert Hurley, 87–92. New York: The New Press, 1997). For an excellent analysis of Foucault's "technologies of the self" as they are relevant to the anthropology of ethics, see James Laidlaw's *The Subject of Virtue: An Anthropology of Ethics and Freedom* (Cambridge: Cambridge University Press, 2014: 103-104).

[17] Murdoch, "On 'God' and 'Good,'" 344. See also "The Idea of Perfection," 330, with her discussion of "moral discipline" as the means to freedom.

virtue."[18] Murdoch referred to this alteration of consciousness as "unselfing," a term based on Simone Weil's concept of "decreation" (*décréation*).[19] Learning how to "to see and to respond to the real world in the light of a virtuous consciousness" is not just a matter of learning abstract truths but of instantiating them as an individual with a personal history embedded in specific social contexts.[20] Returning to the topic of ritual in her later work, she writes, "the inner needs the outer because, being incarnate, we need places and times, expressive gestures which release psychic energy and bring healing."[21] Throughout her oeuvre, she prescribes particular "spiritual exercises"—including time spent in nature, careful examination of art, and prayer or meditation—that facilitate the ethical disruption of our ontological categories and orient us toward the good and the real.[22] Some of these techniques proved useful indeed for our DBS patients, as we will now explore. I will then turn to the ways in which patients manage the challenge of self-formation as they navigate the shared world beyond the controlled settings of specific techniques and scientific studies.

Nature

Murdoch first introduces the concept of "unselfing" with a vignette about the interruptive beauty of the natural world:

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[18] Murdoch, "The Sovereignty of Good Over Other Concepts," 369.

[19] Murdoch, "The Sovereignty of Good Over Other Concepts," 369. Levinas, in his own way, described the ongoing moral task of unselfing: "as responsible, I am never finished with emptying myself of myself." ("God and Philosophy," 144). Levinas was almost certainly influenced by the Kabbalistic notion of "*bittul*" (selflessness or self-nullification) when it came to his account of Substitution. See: Meskin, "The Role of Lurianic Kabbalah in the Early Philosophy of Emmanuel Levinas."

[20] Murdoch, "The Sovereignty of Good Over Other Concepts," 376. With regard to the social context, recall her notion of "convention" as contributing to fantasy, as discussed in Chapter 5. For a critique of Murdoch suggesting that she neglects the communally situated nature of the individual, see Alasdair MacIntyre's review of *Metaphysics as a Guide to Morals*: "Which World Do You See?" *The New York Times*, January 3, 1993. https://archive.nytimes.com/www.nytimes.com/books/98/12/20/specials/murdoch-metaphysics.html.

[21] Murdoch, *Metaphysics as a Guide to Morals*, 307. In an earlier chapter, she wrote: "Habit is essential, both practically and morally… we need useful habits and ought to develop virtuous habits" (218-219).

[22] For an essay treating these exercises see Tracy, David. "Iris Murdoch and the Many Faces of Platonism." In *Iris Murdoch and the Search for Human Goodness*, edited by Maria Antonaccio and William Schweiker, 54–78. Chicago: University of Chicago Press, 1996.

> I am looking out of my window in an anxious and resentful state of mind, oblivious of my surroundings, brooding perhaps on some damage done to my prestige. Then suddenly I observe a hovering kestrel. In a moment everything is altered. The brooding self with its hurt vanity has disappeared. There is nothing now but kestrel. And when I return to thinking of the other matter it seems less important.[23]

Something outside the self, something that even momentarily exceeds our designs and desires, is capable of putting our status quo into question. The hovering kestrel redirects attention centrifugally, prompting the transcendence of self, appreciation of otherness, and connection with something greater. This fleeting receptivity engenders a new, more enlightened perspective, and renders prior conceits suddenly less important. Beauty, Murdoch argues, is the "most obvious thing in our surroundings which is an occasion for 'unselfing."[24] In this case, it operates almost automatically. However, she continues, "of course this is something which we may also do deliberately: give attention to nature in order to clear our minds of selfish care."[25]

Many DBS patients discovered such therapeutic effects of incorporating time spent in nature into their schedule. After three months with the DBS on, Julie decided to try going on a hike with Kate, to test out whether or not she would relish it as she used to:

> Julie: Yesterday we did Lullwater Park. And for me, you know, (*crying*) I'm such a nature girl, it's like... Wow. It touched me. Because, I mean, God, those trees are so old. They're so old, and that just blows me away, how long they've been here. It was just beautiful. It was a beautiful day. We went down and around the pond. It was great.
>
> I was concerned, you know, that maybe I couldn't do it. My muscles remembered how to do it, and they reminded me last night (*laughs*). But I definitely felt better after I did it. It was good.

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[23] Murdoch, "The Sovereignty of Good Over Other Concepts," 369.
[24] Murdoch, "The Sovereignty of Good Over Other Concepts," 369.
[25] Murdoch, "The Sovereignty of Good Over Other Concepts," 369.

> Psychiatrist 1: When's the last time that you were out in nature and able to feel that connection with it?
>
> Julie: Oh wow, I don't even remember. Every time I'm out, there's a part of me that's touched, but this was just so much more. It is like I'm opening up again. And I'm allowing it to open up.
>
> Obviously, that also means being patient with myself, because I'm still crawling. But soon I'll be walking. At some point I'll be scuba diving again.

In Julie's follow-up interview a few years later, she shared with me that unfortunately the doctors tell her that the DBS device precludes her from being able to scuba dive ("something about the pressure"). However, she attested that being active in nature continues to serve her well:

> Walking and being out in the sun have truly made a difference, even now. I spent this past month down at the coast to see what that would be like, and it was amazing. I made sure to walk the beach every day, and it made a difference in how I felt.

Lee also reported that spending each morning sitting out back on his porch with his dog helped to center himself.[26] This was especially valuable for dealing with recurring irritability that he experienced in his early weeks with the DBS on, a side effect that is not uncommon:

> Psychiatrist 1: What do you do to relieve that feeling of crankiness?
>
> Lee: First thing in the morning, I go through my morning routine of getting coffee and sitting outside and listening to the birds and looking out into the woods and stuff like that. I usually bring the littlest dog out there on the deck with me. She'll be running around, always wanting to be petted. She's very sweet and just likes attention. And I think that kind of changes my attitude.
>
> Psychiatrist 1: Have you always noticed the birds?
>
> Lee: Well, I've always liked nature. We have a lot of woods, lots of wildlife. We've got all kinds of birds showing up, and my daughter likes to feed them. We all do. It's kind of neat. We have lots of squirrels. We have one huge squirrel who we call "Fat Squirrel" because he's constantly eating out of our bird feeder even though it's supposed to be squirrel-proof. But yeah, I just notice

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[26] Therapeutic time spent with pets was another pattern across DBS patients' experiences. Many of them reported that an affectionate pet helped them cope with feelings of loneliness and that they provided a useful "lower stakes" source of responsibility. These accounts bring to mind a quote ascribed to Milan Kundera: "Dogs are our link to paradise. They don't know evil or jealousy or discontent. To sit with a dog on a hillside on a glorious afternoon is to be back in Eden, where doing nothing was not boring—it was peace."

> things, and I don't feel secluded from everything like I did before. I guess it's weird, but I feel more connected, enjoying things and enjoying the view and all of that kind of stuff more than I have in the past. I think I'm just noticing more with less effort, just sort of naturally seeing more stuff. I was depressed for so long, and there is a dramatic difference now, not just with my perception of things but also with how they make me feel.

Lee took his reestablished affectivity and incorporated it into an outdoor routine that both stabilizes his mood through the "rough patch" and allows him to feel at peace with the world around him. Just as Toni discovered above, different environments afford different opportunities for interaction. For many of the patients, nature happens to be a particularly conducive environment for escaping the ego. According to Murdoch, nature is the "most accessible" place of moral change, "so patently a good thing to take delight in flowers and animals that people who bring home potted plants and watch kestrels might even be surprised at the notion that these things have anything to do with virtue."[27] Sitting under a tree instead of at the computer leads to an appreciation of a more three-dimensional and immersive world populated by countless others.

Art

The next ego-disruptive technique that Murdoch analyzes is art—that is, "good art, not fantasy art," which would only reinforce self-consoling narratives.[28] Already we can see that some greater degree of discernment will be involved. While this makes it "less accessible," it is also therefore "more edifying" due to the fact that it is made by humans and "'about' human affairs" directly.[29] Murdoch asserts that art is "the most educational of all human activities and a place in which the nature of morality can be *seen*."[30] Good art, she explains, "affords us a pure delight in the independent existence of what is excellent."[31] Using Platonic language, but applying it in a way that

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[27] Murdoch, "The Sovereignty of Good Over Other Concepts," 370.
[28] Murdoch, "The Sovereignty of Good Over Other Concepts," 370.
[29] Murdoch, "The Sovereignty of Good Over Other Concepts," 370.
[30] Murdoch, "The Sovereignty of Good Over Other Concepts," 372.
[31] Murdoch, "The Sovereignty of Good Over Other Concepts," 370.

deviates significantly from Plato's own views on art, she claims that it instructs us in the highest forms of *eros*, loving something without consuming, using, or dominating it.[32] For this reason, "art and morals are… one. Their essence is the same."[33] She goes on:

> The essence of both of them is love. Love is the perception of individuals. Love is the extremely difficult realization that something other than oneself is real. Love, and so art and morals, is the discovery of reality… Love is the imaginative recognition of, that is respect for… otherness.[34]

The goal of art, like virtue, is clear *and* compassionate perception of reality such that we are freed from the distortions of our ego: "The realism of a great artist is not a photographic realism, it is essentially both pity and justice."[35] More than in encounters with nature, art resonates with us emotionally and motivationally. There is no neutral view-from-nowhere that humans can inhabit, so art helps us purify our inherently motivated consciousness—train our "controlled hallucinations"—in light of the good, opening our eyes to the world and to other people.

In Chapter 4, we examined Lance's ability to be drawn into movies as a marker of his recovery. When he was depressed, movies served as "passive distractions" from his pain, but as things progressed, he described his experience as an affectively deeper, "active engagement" with the characters, plots, and cinematography. He stressed the ability of a film to inspire his "willingness" and "motivation"—to attract his close attention. Many DBS patients indicated that they were not only increasingly capable of engaging with various art forms—movies, literature, music—but they were also finding those experiences to be helpful for getting "outside of

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[32] Murdoch, "On 'God' and 'Good,'" 353.
[33] Murdoch, "The Sublime and the Good," 215.
[34] Murdoch, "The Sublime and the Good," 215-216.
[35] Murdoch, "The Sovereignty of Good Over Other Concepts," 371.

themselves." In addition to the enjoyment of other people's productions, most patients felt a creative impulse themselves. Just as Lee found that nature helped him transcend himself and reorient his attention early on, he also rediscovered a passion for photography later in his recovery. He explained that he was inspired to depict the world in ways that are easily overlooked, to subvert ordinary ways of seeing things:

> I'm actually taking very seriously my whole photography thing now. I like to focus on taking pictures of things people see every day that they don't *really* see.

He uses his photography not for "photographic realism," as Murdoch put it (funny enough), in the sense of mere representation, but for the purpose of disrupting our typical cognitive biases. On Murdoch's account, one that resonates with the experiences of DBS patients, the production of art involves connecting to the world with certain virtues: "The good artist, in relation to his art, is brave, truthful, patient, humble."[36] Art is an instrumental medium for self-cultivation.

Throughout this dissertation, we have followed Julie's journey relating to her music. She measured her recovery according to her growing motivation to pick up her guitar, either playing other artists' songs or writing her own. She explained that from a young age music "was a way to intimately connect with people, a way I could open up." Recall that in her worst depression Julie felt musically incapacitated, with no desire whatsoever to lift her instrument. We also saw that in the earliest days of her DBS treatment, playing music overwhelmed her, too emotionally intense in her extremely sensitive state—she needed to slowly redevelop the callouses on her fingertips. This visceral power corresponds with Murdoch's brief mention of "the spiritual role" of music. She writes that this phenomenon is underexplored philosophically but it seems to her "to express more positively something which is to do with virtue."[37] Music has a penetrating energy beyond that of the representational arts, capable of molding the musician's intuitions for literally harmonizing with

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[36] Murdoch, "The Sovereignty of Good Over Other Concepts," 370.

[37] Murdoch, "The Sovereignty of Good Over Other Concepts," 370.

others and with the world. Across many interviews, Julie indicated that listening to specific songs facilitated her understanding and therefore her coping. Developing a metaphor of "thawing out" from depression, she invoked a James Taylor song that had recently spoken to her:

> The song is called "The Frozen Man." It's a story, and I think it might be an analogy of alcoholism and drug abuse, but it's interesting. It's cool. I'm really relating to it right now. You know, you thaw out and wake up, and all of a sudden it's like, "Holy shit, I'm gonna be 60. Oh my God, my parents are so old now." You know, there's grief there to process, too.

She also imagined the potential use of her own original music to open other people's eyes to the depths and reality of suffering, redeeming her experience and putting it to good use:

> Once all this has stabilized and I'm looking back on it, then that's when the music comes out (*smiles*)—that's when I can express how I felt. I'm learning that I don't have to feel it any more to share how I once felt. I can remember the suffering and express it in a way that's not so self-consuming. That pain that I know so intimately can be shared, and I can help others with it. I can use it.

DBS patients experienced a renewed appreciation of various art forms as well as a drive to be more creative themselves, either for the sake of expression or to tap into something transcendent. For many of them, it functioned as a marker of recovery, a healthy coping mechanism, and a vehicle for moral formation all at once.

Meditation and Prayer

In the same way that good art can be both instructive and motivating, Murdoch argues that prayer "can actually induce a better quality of consciousness and provide an energy for good action which would not otherwise be available."[38] She conceptualizes prayer as another metacognitive opportunity for critical distance from our extant mental models, "properly not petition, but simply an attention to God which is a form of love."[39] Famously, she rejects the notion of a personal God as

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[38] Murdoch, "The Sovereignty of Good Over Other Concepts," 368.
[39] Murdoch, "On 'God' and 'Good,'" 344.

overly tempting toward escapist fantasies and prefers instead to venerate a different "*single perfect transcendent non-representable and necessarily real object of attention*," namely "the Good."[40] As we mentioned in Chapter 3, Murdoch's particular form of Platonism describes the good as the source of light that reveals things as they really are with a magnetic power that draws us out of ourselves. By directing our attention toward even the concept of "the Good," she suggests that our consciousness can be thereby purified.[41]

DBS patients also varied in the objects of their prayer and other mindfulness practices, some embracing more traditional religious formulations and others searching for options far and wide that might be more suitable to their circumstances. In Chapter 5, we saw how CBT provided patients like Lance with useful concepts and techniques for overcoming reductionistic interpretations of their circumstances. However, some patients preferred other frameworks. Susan developed her own syncretic approach, combining elements of Buddhist meditation and various secular mindfulness practices discovered through her own research:

> For me, CBT has always been framed as something that someone else administers to me because I have a problem to address, as a treatment for pathology. Whereas mindfulness is a universal thing, it's part of the human experience. We can all reflect and attend to our thoughts, stop the distractions, and deal with things. I find this much more palatable, and the language is much more helpful for me. Whereas "success" in CBT means you'll not be depressed anymore, mindfulness is about more than just that.

In her latest follow-up interview, she continued this line of thought with respect to the role of her mindfulness techniques during and after her depression:

> To deal with the depression beforehand I had been doing a lot of mindfulness, reading, reflection, Buddhist practices, meditation—and all of those practices were helpful in surviving the depression, but they also really helped me live in the post-DBS world and get my life going again. I think that they help me be a human in the world in the way that I want to be. My

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[40] Murdoch, "On 'God' and 'Good,'" 344. Murdoch often capitalizes "Good" when discussing it in this context, but for the sake of consistency across chapters and readability, I will not, unless in quotation.
[41] Murdoch, "On 'God' and 'Good,'" 357.

> purpose and meaning come from being in the world in a way that's good and not harmful to myself or others, you know? Yeah, I think that's just healthy humanness.

Toni likewise suggested that a regimen of Buddhist practices provided her with a "roadmap" for introspection:

> Toni: It helps me navigate what's going on in my head. All the neuroses, all the stuff that got me depressed in the first place, day-to-day emotions—they can get to be complicated. It's hard to tease out the motivation behind your actions and emotional responses. Doing 20 minutes a day helps me work through all that stuff. It's critical.
>
> Psychiatrist 1: Do you have a structured way that you do it?
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> Toni: Yeah, I have to. I need to get fully dressed. I have a specific time and place. It's very structured to keep me focused. I follow along with a program on the internet that gives practices to relax, release, breathe, and it's been a great companion to all the mental work I'm doing in therapy.

Mindfulness serves as a source of metacognition, a way to reflect upon one's assumptions and evaluate one's reactions so as not to be unconsciously swept away. Patients reported that it helped them with recognizing, understanding, and controlling thought processes, a check on whether or not they were oriented in the moment towards something worthwhile.

Conversations about mindfulness primarily tended to highlight its value in the present—being free from unhelpful reactions and biases. Patients who turned to prayer were more likely to describe it in terms of how they fit in to a greater, even cosmic, context or metaphysical structure. For them, prayer clarifies the meaning of their experiences, both good and bad, and provides direction to their recovery process. Zach eloquently characterized the power of mindfulness and prayer:

> Meditation of any kind is helpful. I do a lot of breathing meditation and mindfulness techniques. But also prayer is huge. When I was depressed, I stopped going to church. I was angry at God. Occasionally I would find myself doing "foxhole prayers" out of desperation, just, "Please, I don't know what to do anymore; I need help." But since the surgery I've been praying a lot more—daily, just simple prayers. The one I really like is, "Bless those around me, and please change me so that I can be of service to them." That's been extremely helpful. It's been a game-changer

> having and growing that relationship with God, learning that I'm where I'm supposed to be and that God has my back and that I can give to others what was freely given to me, which is hope.
>
> In the operating room, feeling that (*snaps*) change, the glimmer in that setting, I was just like, "Oh God, thank you. This is possible." You hear about "I seen the light!"-type things (*laughs*)—that's kind of what it was! I was like, "Okay, I see the proof that things can be otherwise." So that moment pushed me to start going to church again. Even though I was raised Catholic, I had very little interest growing up, didn't really pray. And as my depression got worse, I got angrier with God: "Why would you do this to someone who you supposedly love unconditionally?" It made no sense to me, and things only went further downhill from there. But, sure enough, after the surgery I had a new hope and light. I talked to a lot of people about it, and somebody from church said to me, "Isn't it cool that God trusts you to go through this?" I looked at him like he was nuts and thought "Man, I kinda want to punch you right now." But I took a second and thought, "I don't want you to be right, but I think you might have a good point." It gave me chills. God trusts me to walk through this, and I can choose to trust Him, and that gives me strength. Whether or not that's the truth I could never prove, but it definitely changed my perspective.

Note the evolution of Zach's use of prayer, representative in many ways of the general trajectory of recovery via DBS. In his darkest days, he cried out to God, petitioning for relief and for any amount of light to break through. On the operating table, the first rays pierced in a sort of revelation. With the world newly illuminated came a sense of possibility and hope. Consequently, Zach's relationship with God shifted—from desperation for answers and help to a feeling of mission and responsibility. His questioning turned from "Why me?" to "What can I do now?" Prayer transformed for him into an opportunity to actively nurture his relationship with God. Finding that his personal story made sense as part of an overarching narrative made his new sense of autonomy intelligible and gave him strength.[42] His everyday prayers now habitually reinforce his new, more forward-looking perspective.[43]

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[42] In his book *The Great Partnership: Science, Religion, and the Search for Meaning*, Rabbi Jonathan Sacks noted this transformative power of prayer, explicitly invoking Iris Murdoch: "Prayer is a way of seeing, not unlike the account Iris Murdoch gives of the aesthetic sense." (New York: Schocken Books, 2011: 198.)

[43] It is worth noting that patients largely discussed prayer and mindfulness in terms of self-control and embodied practices, emphasizing their role in cultivating the self, as opposed to a more strictly mental understanding focused on thought processes alone.

Interaction

Engagement with nature, art, or prayer tends to occur in relatively frictionless settings. Using these techniques, our eyes are opened to otherness, but in a way that demands very little for specific others. Murdoch's description of art as "goodness by proxy" is apt.[44] Goodness in practice, however, is understandably more complicated. Interaction with human beings requires the balance of competing, often incommensurable, goods. The people in our lives are needy, vulnerable, complex, and inconsistent, and so are we. Not only despite but also because of the difficulty of harmonizing with others, ordinary moral life figures in Murdoch's account as the most important medium for unselfing, the most direct contact with the good: "If one is going to speak of great art as 'evidence,' is not ordinary human love an even more striking evidence of a transcendent principle of good?"[45] Human interaction is the site where our transformations of consciousness are put to the test. It is also where, with proper attention, they can be solidified or further refined. Nature and art may have opened one's eyes to the world beyond the ego, and prayer may have put us in conversation with the greater narratives of which we are a part, but daily life is where the actual needs of particular others exert their pull. As Murdoch scholar Mark Hopwood puts it, on her account, "we love particular individuals in the light of the good, and we love the good through particular individuals."[46] Chapters 3 and 4 analyzed the originary ethical impulse—the way in which shared existence with other people brings us out of ourselves. But central to recovery from severe depression is the ability to not only be affectively receptive to those demands but to appropriately navigate them in practice. This is like transitioning from the treadmill to the open road.

In his account of justice, mentioned in Chapter 4, Levinas admits that we must operate at the level of ontology—calculation and comparison—to effectively feed the needy, for instance. However, he theorizes this concrete realm much less than the infinite ethical demand that both justifies and

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[44] Murdoch, "The Sovereignty of Good Over Other Concepts," 371.
[45] Murdoch, "On 'God' and 'Good,'" 361.
[46] Hopwood, Mark. "'The Extremely Difficult Realization That Something Other than Oneself Is Real,'" 486.

critiques it. Murdoch more carefully thinks this arena through, explaining that, in comparison with the other techniques for unselfing, humans are "far more complicated and enigmatic and ambiguous… and selfishness operates in a much more devious and frenzied manner in our relations with them."[47] She points out that love can also be corrupted into possessiveness; because it can contribute to our self-consoling narratives, we need to be ever more vigilant.[48] We have even greater responsibility for critical reflectiveness when it comes to social interaction. This responsibility is fulfilled through attention to particular others and their needs in particular contexts. Maria Antonaccio writes of this particularism in Murdoch's moral realism:

> Progress in understanding moral concepts does not move in the direction of increasing generality, but rather in the direction of increasing depth, privacy, and particularity. Thus the idea of the individual and the idea of perfection are connected. Perfection is measured by our ability to perceive individuals… Knowledge of the individual is the highest goal of moral understanding, and is identified with knowledge of reality.[49]

To illustrate this process as experienced with DBS, we will focus on a specific patient, Betty, as she navigated tensions in her marriage that were caused by her response to the treatment.[50] She was far from the average patient, as her recovery followed a very unusual timeline, but her more extreme case distills the experience of many common obstacles faced by DBS patients. The changes precipitated by her DBS device resulted in a dramatic shaking up of her relationship with her husband, Joe. A great deal of effort and coordination was then required as they sought a new

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[47] Murdoch, "The Sovereignty of Good Over Other Concepts," 374-5.

[48] Murdoch writes, "Eros is a trickster and must be treated critically" in "The Fire and the Sun: Why Plato Banished the Artists." In *Existentialists and Mystics: Writings on Philosophy and Literature*, edited by Peter Conradi, 386–463. New York: Penguin, 1997. Additionally, Antonaccio makes the case that Murdoch's "Reflexive Realism" is best understood through the lens of interpersonal interaction (*Picturing the Human*, 139).

[49] Antonaccio, *Picturing the Human*, 99.

[50] Here again I will switch to present tense, as we follow Betty's ongoing narrative.

equilibrium acceptable to them both. They aspired to a balance that upheld their independence as individuals in view of their mutual dependence, responsibility, and love for each other. As we will see, Betty's recovery ultimately involved an appreciation of their joint autonomy.

In Plato's allegory, stepping out of the cave and into the sunlight can be painful at first for anyone. Murdoch explains that "the realization of a vast and varied reality outside ourselves… brings about a sense initially of terror, and when properly understood of exhilaration and spiritual power."[51] For DBS patients, recovery from treatment-resistant depression can feel the same way. We have discussed the sometimes jarring sensory, emotional, and ethical sensitivities that can be abruptly restored as well as the ongoing temptations of past cognitive and behavioral biases. This can be further complicated by the uncertainty and inconsistency of the "rough patch," in which patients often experience the feeling of taking two steps forward and one step back (if not more). As they re-learn how to feel normal negative emotions, the threat of depression seems constantly looming. Alongside the building of emotional resilience, patients must also develop confidence in themselves and in their device that progress made will not be suddenly lost. For many patients, this is one of the most challenging aspects of the process, as they have never undergone such a gradual recovery that requires not only the undoing of one's old habits but the painstaking formation of new ones in contexts that contain past emotional triggers. A final twist on this—the main focus of this chapter—is that it is not only patients' own habits that must be rebuilt but those of their loved ones. What should their new shared routines look like? How do they decide? In Betty's narrative, we will see that all of these obstacles present themselves as she and Joe seek answers to those questions.

Discussions of impaired motivation and autonomy predominate in Betty's earliest interviews. In these conversations leading up to her surgery, she depicts herself as entirely dependent upon her husband of 45 years for her most basic care. Given the severity of her depression, their daily routine involves Joe prompting Betty to wake up in the morning, washing,

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[51] Murdoch, "The Sublime and the Beautiful Revisited," 282.

drying, and brushing her hair, and bringing her meals. Betty shares that she is incapable even of getting to the bathroom on her own: “I would lay there until Joe came into the room and got me up to go. I didn’t even think ‘I need to get up.’ I was just frozen.” Any and all decisions fall to Joe because, she explained, “He asks me what I want for supper and my mind is blank. I don’t wear jewelry or nice clothes anymore because I can’t make choices. I can’t make decisions.” Reflective choice and motivated action felt to be impossible, she compares herself to a body without a soul. “I feel like a shell,” she states, “like my inside is missing.” The loss of desire underlying autonomy amounts to a loss of self, according to Betty. Where once she was passionate about food, fashion, and time spent with friends, she now experiences no motivations at all. She no longer feels like an independent “living” subject; she has become an object merely “existing,” almost like a virus, sustained entirely by her husband.

We have in previous chapters mentioned the dramatic phenomenological reversal in the operating room as Betty received her DBS. Comparable to her past experiences with antidepressant treatments, she feels instantly cured with the device’s initial activation. Even in the month following surgery during which the device remained off, the effects persist. In her first interview after surgery, she surprises the psychiatrists with her extreme responsiveness to the treatment. She feels like her soul has suddenly reoccupied her body:

> Betty: I’ve got that feeling of wellbeing. I think all my energy was spent in depression trying to escape. My feelings were so negative that I just didn’t want to feel them, and I would wake up feeling dread. But I went home from the hospital on Wednesday, and then Thursday morning Joe came in to wake me up, and I said, “It is so wonderful to wake up and not feel dread.” I’ve kind of felt like things were just, um… normal—the way life’s supposed to be.
>
> Psychiatrist 1: Now a couple of times you’ve referred to depression in the past tense. Are you depressed right now?
>
> Betty: (*Shakes head*) No.

As welcome as recovery with the flip of a switch would be, Betty's restored capacities to perceive and pursue salient affordances did not automatically entail new habits of mind. The suddenness of her changed experience represents a limit case of a challenge facing every DBS patient, the need to lay down new, stable, healthier cognitive patterns. This is a longitudinal task that inevitably occurs in concert with others and in diverse contexts replete with competing demands. At one point early on, Betty insightfully recognized that her sudden change in consciousness was an opportunity to take advantage of and not to squander.

The challenge, then, is knowing how to make the most of that opportunity. With the DBS functioning, Betty no longer feels "trapped in her own head," but she is without direction, bombarded from all angles by tempting stimuli. Energized to experiment with her options, she fills every day with numerous activities, trying different restaurants with friends, annexing the dining room table for her colored pencils and watercolors, and volunteering to care for local "shut-ins" through her church. Eager to venture out again, she loses track of time shopping at the mall, basking in the sights and smells, but leaves Joe anxious about her whereabouts for an afternoon. Almost immediately, she discovers that her frantic new schedule and her rusty communication skills are hurting her relationship at home. Over decades, Joe had restructured his life around her needs as a person with treatment-resistant depression, and in a moment many of those needs evaporated. Their longstanding way of life thoroughly unsettled, friction developed easily and often. At the one-month point with the DBS active, the psychiatrists ask Joe how he was handling the changes:

> It's a lot better than what it was a couple months ago (*laughs*)! Yeah, much better. And I think we can handle this if it keeps going this way. It'll take some getting used to on my part, and on hers. She doesn't like for me to tell her what to do, so I get snapped at occasionally with, "I can do this myself." So, that's where our greatest conflict is right now.

After years of inhabiting the caregiver role, Joe now has to share his space with a more independent and assertive partner, who is actively learning how to utilize that independence. This will entail some significant adjustments on his part.

Yet, Betty also acknowledges that she has an equal responsibility for their relationship. She feels almost like a teenager who needs to learn how to better manage her new impulses, but with the adolescent period "all sped up." She, like many patients, experiences increased irritability after her surgery—hence, the proclivity to "snap" at Joe.[52] Weekly therapy sessions help her appreciate the need for effective communication and fact that she and Joe "have to relearn our tone when we say something—not to say things in a way that's misunderstood." The dynamic process of self-formation is not ultimately an individual endeavor; it demands coordination with those around us, on whom we depend and to whom we have obligations. To that end, she brainstorms additional ideas, drawing on her past experience as a grade-school teacher:

> Betty: I need a schedule. I need to be just like I'm in school, in a class. One hour of a certain subject, almost like I need to set a timer and stop, because I have been going from one thing to another. My usual self—before depression—was interested, energetic, organized, but it's been so long since Joe has seen that side of me that he thinks I'm manic. I don't feel manic, but I might be on too much medication.
>
> Psychiatrist 2: What tells you that?
>
> Betty: I can't relax. I actually signed up for a class on that tonight, on sleep hygiene.

Along with irritability, a number of DBS patients reported feeling overenergized at first—recall Susan's description of her persistent "coffee buzz" in Chapter 2—and sought out sources of structure not only to gain a personal sense of control but also to make their lives more predictable and less disruptive for others. In addition to communicating regularly and thoughtfully, establishing consistent everyday routines was universally described as invaluable, especially when it came to functioning as a team with loved ones at home.

It is easy to prescribe thoughtful communication and steady routines in theory. Realizing those ideals in practice, however, can be difficult for DBS patients, for the many reasons mentioned

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[52] This relatively common adverse effect makes sense in terms of predictive processing: with increased prediction error being admitted, patients can feel overwhelmed. This can manifest as irritability, anxiety, or feelings of "overstimulation," as several patients put it. Their newfound sensitivity to sensory input takes getting used to.

above. Betty learns that exploring what her desires ought to be and establishing habits conducive to them sometimes requires extricating herself from shared activities that Joe finds valuable. For example, rather than spend her evenings watching their favorite shows together, she decides that she would prefer to devote her time to the creative project of remodeling their house. For the first time in many years, she has a desire for a creative outlet and believes this to be a source of both enjoyment and purpose. Unfortunately, the changes to their routine are not well received and lead to what Betty dubs "World War 3":

> Psychiatrist 1: So, when was "World War 3"?
>
> Betty: Don't write it in the history books yet—we don't know, there may be a 4, 5, and 6, (*laughs*). He got his feelings hurt is all I can say. He's had to babysit me, but I don't need a babysitter anymore, and it's not healthy for either one of us. Our entertainment for so long has been the TV, and now I can't concentrate on the show, and I don't think I want to anyway. Looking at remodeling magazines for some reason really bothers him. It just seems right now like I've wasted so much time on TV that it's almost like the devil to me. I mean, he knows me better than anybody, so I'm not saying I don't give merit to his opinion that I seem hyperactive, but when I think about setting a schedule, should it be my schedule? Our schedule? I mean, I don't know. I've told him several times that I need to make a schedule. I wrote somewhere "wake up" at a certain time. And, of course, trying to do meals at a certain time. Chores. Grocery store. Walmart, whatever. Those things I can jot down, and they don't have to be at exactly at the same time or every day, but I want to work those in. And then I need some kind of a project—there's some simple things we can do, like for Christmas presents put together a photo album. But he's upset that I can't just do what he's doing.

Betty no longer wishes to consume hours in front of the television every night, and her choice to pursue another interest catches Joe off guard. He was accustomed to finishing dinner, doing the dishes, and sitting down for NCIS or a college football game with his wife in the recliner next to his. Her unexpected compulsion to be active, putting every minute to good use, strikes him as evidence of a manic episode, a negative judgment of his personal habits, or both. At the same time, Betty struggles in different ways with her new inclinations, unsure of what the exercise of autonomy should look like in light of their relationship and Joe's needs. Every action that she undertakes for the sake of her recovery impacts or has implications for his experience. The line increasingly blurs between changing her personal routine for the better and demanding changes in Joe's. Setting an alarm clock to start her day "bright and early," for instance, is complicated by the fact that it wakes him up too.

It is hard enough just to coordinate everyday routines such as when to eat or wake up when one partner is recovering from illness. But, the universe being unpredictable, sometimes major life-changing opportunities emerge, even when occupied with another life-changing opportunity. Nine weeks after Betty's DBS was turned on for good, she hears that the old house that she and Joe first lived in together has been condemned and is being sold at auction. In her mind, it is being offered to her on a silver platter. This is her chance to fix it up and turn it into something useful, like long-term housing for out-of-town patients at a nearby hospital. From Joe's perspective, Betty is indulging in irrational fantasies. The situation serves as a lens refracting the differences in how they understand her recovery to be progressing. Choosing to purchase the house is either evidence of mania or a reflection of her restored sense of calling. In a one-on-one conversation, Betty elaborates on the personal significance of the house:

> Betty: That house has not been loved in a very long time. And at the end of this month, it's going on the auction block. We put a whole lot into that house, and I just want it to be saved. I can't say specifically what it will be saved for yet, but I think that that will come in time. Someone's gonna buy it and tear it down, and I've got three very good fixer-uppers in my family who can make that house what it needs to be.
>
> Psychiatrist 1: What are Joe's thoughts about the house?
>
> Betty: I'm scaring him, I'm scaring him. I don't really think I'm much different than I was 25-30 years ago... But I'm ready to make a gamble on this house. It may or may not pan out like I envision.
>
> Psychiatrist 1: What does the house mean to you?
>
> Betty: Oh, you know, a house is not supposed to mean anything, but it means everything to me. We raised our kids there. We uncovered the wood floors, stained them, added a bathroom. Everything that Joe did is structurally sound. I figure the house is going to go for so much less than it's worth, and Joe and I can live there, you know, as we get older. It would be an easier house to maintain. I know that Joe is worried, and rightfully so, but I can't live feeling like I'm

> gonna fall off the edge every day. I want to act while I feel like I'm able to. To be honest, I don't know why I feel this good. I don't think you could tell me why I feel this good, but I don't think I can live every day thinking, "Uh oh, it's coming back." And unless I say to Joe that I want to go gambling at a casino and take out $3000, I don't think I'm manic.
>
> Psychiatrist 1: When you talk about the house, do you talk about what it means?
>
> Betty: I think it means the very same thing to him.
>
> Psychiatrist 1: Is that part of your discussion about why you want to buy it?
>
> Betty: The way I put it is that we put a lot of love into that house—a lot of our labor, our emotions, our happy, happy times. And I could hardly bear to look at it in the last few years, because it was like me. It was just so sad. I stopped by it the other day to look around. There were broken windows, beer cans everywhere, holes knocked in the sheetrock…
>
> Psychiatrist 1: It sounds like it's not quite the house you remember.
>
> Betty: No, it's been abused and needs to be saved.

Betty identifies with the house and understands this as an opportunity to tangibly enact her own recovery. But she also recognizes that this might seem like a reckless idea, especially to her husband who is on the lookout for side-effects to her treatment. Arguing against the claim that she is manic, she invokes an example that suggests she's familiar with the diagnostic criteria—gambling away money in a casino—in order to contrast it with the more justifiable "gamble" that she's willing to make on this house.

The psychiatrist then invites Joe into the room to discuss his interpretation, which is based not on specific diagnostic criteria but on a comparison with her past behavior as he recalls it. Unable to articulate his concern beyond a gut feeling, he grows frustrated. The exchange comes to a head with him losing his composure. Feeling ganged up on, he walks out:

> Joe: If she wants to do that with her money, she can do it, but it's just not like her.
>
> Psychiatrist 1: What other things make you think this is a manic episode?
>
> Joe: She can't slow down. She just doesn't slow down. And that is not like what she's ever been.

> Betty: Ever?
>
> Joe: Ever. Not like this. It's not Betty. I can't put my finger on it. She's just… Her mind is always racing.
>
> Psychiatrist 1: How can you tell?
>
> Joe: Because of what she does. She organizes something, and then she'll go back and reorganize it. She can't be still. She can't sit and watch a TV program with me… She won't watch a TV program with me.
>
> Psychiatrist 1: Does she still like TV?
>
> Joe: No.
>
> Psychiatrist 1: Is that concerning to you?
>
> Joe: No, it's just different than she's ever been, and that's what I'm trying to tell you. She's different. In a much better way than she was before surgery. Don't get me wrong, I'd take her this way any day over what she was before surgery, but… something's not right. Yeah, she always worked when the kids were small, and she made Christmas ornaments, busy all day long, but it was a different kind of busy. She wasn't going from one thing to another and back, flitting between things. (*Increasingly exasperated*) Betty has made it abundantly clear to me today what she wants. She says, "You can just go, and I'll do whatever I want to." So, if you would like me to go…
>
> Betty: That's not what I said.
>
> Joe: That is what you said. I will just leave y'all to discuss this, and I'll go (*stands up to leave*).

Betty clearly experiences many of the impulses that we described in the previous chapters—a drive for purpose and service, for example—but instantiating those desires in a responsible way is not always straightforward. Here she has to figure out if she is appropriately pursuing an ethical, meaningful, and responsible goal, as she hopes, or if she is falling prey to an ego-protective, self-consoling fantasy, as Joe suspects. Is saving the house part of her own salvation, or is it an exciting distraction? Does this gamble qualify as bold or rash? Selfless or selfish? This is unavoidably a matter of interpretation. With the reality likely a mélange of all these "secondary moral words," to use Murdoch's language, it may be that such questions cannot be answered in the abstract but must be worked out over time with Joe. From a Murdochian point of view, whether or not this decision represents a "true" exercise of autonomy depends on the process itself of putting their interpretations into dialogue.

Despite the blow-up, Betty and Joe use this dispute over the old house as an opportunity to hone their coordination skills. Sitting down together, they more thoroughly investigate the logistical details that would be involved in the undertaking. Given the costs and the fact that long-term medical housing already exists in the area, they jointly decide that buying the home is not currently justifiable. Betty later admits to the psychiatrists, with a hint of resentment, that even if the project were more logistically feasible, her energy is better spent focusing on the needs of her marriage. The emerging tensions are a more pressing issue:

> I'm getting excited about different things, but he thinks I'm losing it. Maybe I am. I look at stuff and think, "I would enjoy doing that." We used to do lots of projects together. The parts I didn't like to do he would do, and the parts he didn't like to do I would do. But I don't think he trusts me right now—he's pulling back. And I am very different from when I was in my self-induced coma for years and years, but this is the me that I've always been.

Betty reminisces about being aligned and complementary, a unified couple. Circumstances have changed profoundly since then, and it will take a concerted effort to get back to that level of synchrony. If they are not yet in a position to take on a new major task together, Betty tries to find ways to tackle smaller projects while also respecting Joe's needs and his usual schedule. In hopes of "finding a balance," she recommends that he still watch his Alabama football games, and she will put headphones in and "make a mess" with all of her art supplies at the table next to him. Joe commits to this compromise as well. Seeing that Betty has put together a stack of Christmas cards, he walks over to her and offers to address them when the game ends.

> You know that's not something he's ever helped with, but I welcomed it. I said "Sure!" Then something happened, and it came right back to us being upset with each other. He made the comment, "I will not subject you to this anymore." He's thinking he can't watch the game, but I never said that. I don't care if he watches it, but he shouldn't care if I work on something that I enjoy. He shouldn't make me feel like I'm the one at fault for just trying to stay healthy. He is so

> used to me being a non-person with no opinions. There was no friction when I was depressed, because I was just not there. But now he's taking everything I choose to do as a personal attack.

Despite their commendable efforts, Joe remains distressed by the changed routine; he understands Betty's actions as a sign that she would rather he follow her lead and stop watching television altogether. Her suggested compromise is not enough to avoid seeding his own feelings of resentment.

Freed from many of her depressive tendencies, Betty suddenly sees in a new way that Joe had developed his own unhealthy coping strategies over the last decades, "even though he's never had one ounce of depression that I know of." She begins to think more deeply about the impact of her descent into depression on her husband. She also considers the direct implications of Joe's mental health for her recovery, noticing that he had drastically isolated himself in the years as her caregiver and given up on most of his old hobbies:

> He hasn't maintained his friendships. He hasn't called his closest friend in 7 or 8 months, even though I have started back up calling that friend's wife every other day. I don't understand it. He says, "I don't have anything to say." But I think you still have to invest a little time to maintain a friendship. I feel like he's given up all his pleasures to babysit me and kind of cut ties with other people. He's got two brothers and a sister who are all getting older, and the sister's husband is not doing well—he's on dialysis. I said we need to go see them, and I get no reaction from him at all.

In a sense, Joe had been imprisoned by his wife's depression alongside her. Unfortunately, he does not have newly implanted electrodes facilitating his escape. Betty realizes that as part of her journey to mental health, her husband will have to address some of the habits that hardened as he too learned to survive with her illness. His recovery is part of her recovery.

Three months into the clinical study, Joe's unhealthy coping mechanisms are thrown into sharp relief by another incident that is not uncommon for people of their age—the death of a close family friend. In response to this friend's passing, Betty experiences a strong desire to discuss mortality and meaning in life, subjects that they had not had the luxury of addressing for years. Joe's reaction is much more stoic. As Betty describes it, "I probably overcommunicated, and he could not communicate at all." Awash with emotion and frustrated with her husband's failure to reciprocate, she turns from the topic of their friend's death to past traumas such as their parents' deathbed wishes and the loss of their first child:

> I asked him to tell me what our baby looked like. He said, "What is bringing that on?" I told him, "You saw the baby, I did not, and I would like to know how you felt when you saw your baby." Nothing. No words. But this is reality. The death of our baby was very much a reality. To not talk about it is one of the reasons I ended up the way I did. I know what it's like to not be able to open up. I just feel like I need to be able to express that to the person who experienced that with me. And as good as he is to me, you know, I just feel like that's not a relationship if you're not there for each other emotionally. Yes, he has taken care of me—washed my hair, shaved my legs—but those things can be done by a professional. What I needed this weekend was to be able to talk about our friend and the memories that we shared together. I needed to have somebody to talk to, and if he can't be that person, then I don't think we're meant to stay together.

The conversation does not result in Joe being more engaged. It is too much, too fast. Again, confronting reality can be painful. If anything, Joe shuts down more, to the point where they are "hardly communicating at all." Along with Betty's rapidly growing sense of independence come greater expectations of her partner as well as feelings of disappointment when he is unable to adapt as quickly as she does. She becomes much more vocally judgmental. Largely motivated by his "best interests," Betty pushes Joe to be more proactive about a number of things, from taking care of his health to being a more responsive spouse and friend. He had always shown his affection through acts of devotion and service, but she now wants to have deep conversations, something that he was less comfortable with.

Over the course of the following weeks, something of a vicious cycle develops. Not used to being noticed, let alone criticized or pressured, Joe starts overinterpreting nearly all of Betty's comments as antagonistic. Much like his wife and other patients suffering from depression, he becomes quick to frame matters in binary or all-or-nothing terms. In a joint interview, Joe repeatedly suggests that if Betty doesn't want to conform to his preferences, then that must mean he has to conform to hers. Implied in many of his statements is a zero-sum assumption that only one of them can exercise autonomy at a time. One of the psychiatrists recognizes the urgent need to intervene and redirect the couple out of their spiral of resentments:

> Psychiatrist 2: What if the change in the dynamic means that each of you gains some more autonomy? Just like she's not asking you to take up crafting, you don't have to depend on her wanting to watch Alabama football. What if the change in the relationship is about regaining more autonomy that hasn't been present in the marriage for a long time because it was not possible? In the past, you weren't able to do simple things like fix your dinner without thinking about what she was going to eat.
>
> Joe: Yeah, I would have to make her eat.
>
> Psychiatrist 2: Right. Or help her with the shower or other basic activities of daily living. But now she doesn't necessarily need that. This actually gives you the possibility of regaining part of your autonomy, too. You have been a very good caregiver for a long, long, long period of time, but now you don't need to wait for her to sit down to enjoy NCIS.
>
> Joe: It's just something I'm not used to doing, and I don't think I like the change.
>
> Psychiatrist 2: You don't?
>
> Joe: No. I do like the fact that she's so much better, that she's so full of life now. But she's been going over the top lately about what I need to have done. She's been on me and on me and on me about going to the sleep doctor, so I got an appointment set up. Just lots of things like that.
>
> Psychiatrist 2 (t*o Betty*): Okay, so maybe as you're regaining autonomy and self-directedness, you may also need to think about how he's also entitled to that autonomy. Consider that when you were depressed, he got used to being somewhat alone. Now you're paying attention to him, and he might feel like there's a spotlight on him. Let me ask: What worries you about when you go back home at the end of this six-month period?
>
> Betty: That we won't have the same goals.
>
> Psychiatrist 2: You've been married for 45 years and been through difficult times—what are the things that helped you get along so well even through stormy weather?
>
> Joe: Forgiving each other. I guess that's the main thing. Knowing that the other has faults and living with them. And working hard to get along… (*Turns to Betty*) That sound about right?
>
> Betty: Just deeply loving each other.

> Psychiatrist 2: So you'll need all of those in this new state that you're in, because it gives you more autonomy *and* gives Joe more autonomy.
>
> Betty: And that is healthy.
>
> Psychiatrist 2: It's healthy, but it's also challenging. Just because you're able to do more things doesn't mean you know what to do. Being freed from depression doesn't mean that everything is easy or obvious. This is a period of transition for you both. But I'm glad we're all on the same page in being very happy with the changes we're seeing.
>
> Joe: I'd take her this way any time. Even if she was twice as active as the Energizer Bunny, I'd still take her this way.

Joe is grateful that his wife is relieved of her depression, but still claims not to like the changes that have followed as a result. For years, Joe has had free rein, with no feeling of being judged, so being put in the "spotlight" is a drastic difference.[53] Betty makes clear that she wants Joe to be his "best self" because she loves him, but the psychiatrists clarify in turn that she must learn how to achieve that goal in a more respectful and effective way. This exchange shows us that the abilities to see more clearly and to feel love both come with a host of temptations. In attending to others, we must be careful not to let our desire for the good and our ethical aspirations become corrupted by narratives that reduce others to extensions of the self. Betty and Joe's narrative sheds light on Murdoch's tale of M and D as we see the concrete actions that can cause someone to perceive another in more and less just terms. At this point, they have learned the hard way what *not* to do when it comes to balancing their autonomies. Now that they have reflected with the help of the team of doctors on what they might aim for instead, we will see that they continue to aspire through embodied practice, trial-and-error, learning with each step. For the first of these steps, they agree to attend marriage counseling for assistance in negotiating their necessarily joint autonomy.

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[53] Note that Joe's experience as a partner to a DBS patient also illustrates the Levinasian-Murdochian theme that the presence of the other calls you into question. This can feel painful and reflects the at times extreme language that Levinas uses to describe it (e.g., "hostage").

Betty’s story is representative of the difficulties faced by DBS patients generally, but hers was also out of order compared to the typical course of recovery—the roughest part of the “rough patch” didn’t happen for her until four months into the trial, much later than with most patients. It is at this point that she faces the first “big dip” in her mood. In her interview that week, she states that the “feeling is similar to depression—maybe not the worst of it, but just sort of feeling like I’m not myself.” As it turns out, marriage counseling can itself serve as a stressor. As much as patients extol the value of therapy, there are contexts in which it can be disruptive and even unhelpful. Joe had begun opening up at home in ways that Betty needed, but it seems that the marriage counselor expected more than Joe was yet comfortable with. Attempts to discuss his childhood or traumatic events in his life were again met with pushback. Reflecting on the session, Betty explains to the psychiatrists that this approach, which serves her so well in one-on-one sessions, was extremely unpleasant as a triad and made her feel guilty for convincing Joe to take part. Alone with a therapist, she feels free to be vulnerable without judgment, but with a third present, social dynamics start to bubble up and interfere. Consequently, the couple decides not to continue with the therapy. The day after this painful experience, Betty wakes to a profound “feeling of gloom” that she insists, “kicked in for no reason.” She and Joe had scheduled to trip up to the casinos in North Carolina, described as a tit-for-tat concession after he agreed to do couples counseling for her. Her plan had been to sit and read next to him while he gambled, but she finds herself unable to muster the motivation to even open her book. She instead spirals rapidly into her old depressive thought patterns, “turning inward again,” and ruminating for the entire daytrip on her negative mood: “I told y’all that up until now I felt maybe a little overstimulated—Joe certainly thought so—but now the opposite is going on. I think I’m understimulated.”

Whether or not the marriage counseling session precipitated this regression in her mood or if it was merely a coincidence, the next several weeks hit Betty hard. She falls back into many of the habits that characterized her depression, watching all their old TV shows at night and having Joe bathe her and brush her hair. “There’s not nearly as much conflict as there was,” she shares with the psychiatrists, attempting to highlight a silver lining. However, this fact appears to them more as a red flag. Psychiatrist 1 draws Betty’s attention to the potential relationship between friction with Joe and the recurrence of depressive symptoms and tendencies, suggesting that Betty’s apparent relapse may at least in part be a subconscious response to her marital strife. Betty sees “no connection between them”:

> Betty: I wish I could see a correlation, but everything was really good. I was only feeling good.
>
> Psychiatrist 1: I hear you saying things were really good, but there was a lot that you were telling us at the time that was not good—a lot of distress and concern about your marriage and how it was going to go forward.

This moment reflects the complexity of first-person privilege (a challenge for the doctors caring for her as well as for scholars analyzing her experience). It is uncontroversial to suggest that individuals have unique epistemological access to certain aspects of their experience, however it is also the case they are often uniquely blinded to other aspects. It may be here that Betty is correct in claiming that her sudden regression is not primarily explained by her circumstances, that it is a case of “understimulation,” as she claims. The third-person perspective of the psychiatrists, though, is also important for making her more aware of environmental stressors that necessarily interact with her neural function and the effects of the DBS. Given the impossibility of wholly disentangling biological and environmental factors, the psychiatrists take a more pragmatic tack. They explain that regardless of what is ultimately at fault for her suffering, she is eligible for an adjustment to her stimulation parameters according to the study protocols. Psychiatrist 2 clarifies that because of Betty’s abnormal initial response, they had left her on a lower starting “dose,” not wanting “to mess with something that’s working.” Psychiatrist 1 adds that Betty should not expect this voltage adjustment to result in another radical change. She will now have the same settings as most people at this point, and, like them, will be navigating the “rough patch” through patience and practice.

They were right. The voltage change does not induce radical changes. In her interview the next week, Betty laments her profound sadness about a number of things, stressing in particular the "let down" from her prior euphoria:

> A few weeks ago, we were eating fresh trout at a restaurant, and I was savoring with all my senses the food and the atmosphere, and that's still in my memory, but now there's a numbness creeping back in.

She has undergone major swings her in experience, from nearly catatonic to "almost too good" and then back down to earth. This latter downshift does not feel particularly good, especially with the minimal probability of another sudden shift back up. Nonetheless, whereas pre-surgery depression involved utter numbness, she acknowledges that she is not now completely overtaken in the same way. She admits that there are noticeable ways to distinguish her sadness from the totalizing nature of depression. A few weeks later, Betty wrestles with intense anger. Frustrated with the setbacks, she muses in her interview about questions of theodicy—much like Zach described above—almost indignant at the limits of human knowledge: "What have I done to have caused this? Why can't we get to the bottom of it?" Embracing Betty's righteous fury, Psychiatrist 1 jumps at the opportunity for reframing:

> Your sadness and this anger, as bad as they feel, are good signs! They are reasons for hope. This new emotional range shows us that things can change, that you can take steps to influence them.

Only mildly receptive to this interpretation, Betty advocates for an alternative method of influencing things: "You see no benefit in turning the voltage up?" We again see the temptation of biologizing narratives. Wary of the quick-fix mentality, the psychiatrists invoke the standardized protocols of the study in order to suggest that this option is not available at this time. They instead encourage Betty to take small steps to be active, reengaging with her post-surgery routines. Returning to a theme that we have encountered many times now, they state, "This is the part that takes work."

For a patient who has always experienced recovery as a swift and complete transformation, these words are hard to hear. They are even harder to internalize. We discussed in Chapter 5 the allure of narratives that relieve patients of their agency and responsibility, such as those that define depression as nothing but a "brain disease" in need of a biological solution. This is precisely the line of thought that continues to plague Betty in the subsequent weeks and that she must actively fight to overcome. In search of hard data, she turns to the internet, joining discussion forums to hear from other DBS patients about their experiences with different stimulation parameters at other trial sites. She peppers the psychiatrists with questions about why they were only open to adjusting voltage rather than making changes to stimulation frequencies or other settings. In their next joint interview, it is clear that she and Joe have been discussing her findings at length. He ultimately offers a metaphor to express their desire for a one-time technological solution:

> This is probably a stupid question, but she sorta got jumpstarted—I guess that's the best term I can come up with—when she first had this done. Can you not jumper cable her now, so to speak?

The psychiatrists caution against attempts to reduce Betty's illness to a single, simple explanatory factor that can be addressed in isolation. While they are happy for Betty to use online forums as a type of support group or as a way to think through questions she might have for them, they contend that it might be imprudent to privilege medical opinions that she finds there. There is a risk of confirmation bias—essentially, the subconscious reinforcement of preferred narratives—as one sifts through commenters' anecdotes. The reality is that her path to recovery will be more complex and demanding. They again advise setting small goals, tracking them, and using positive feedback to strengthen good habits:

> How do you feel about keeping a log of these tasks? You must have done charts like that when you were teaching. It sounds silly, but gold stars feel good! Even as adults, that feedback is helpful, marking off your accomplishments. As teachers, you did that for a reason.

It is interesting to note that Betty intuitively appreciated the need for structure to contain an abundance of energy in her first weeks with the DBS but has not yet bought into the power of habituation to cultivate additional energies. The psychiatrists continue to emphasize that she should not expect another sudden transformation. "It's watching the sun come over the horizon," says Psychiatrist 2, "not waking up and it's noon."

Grudgingly, but also desperate for anything that might help, Betty begins to adopt the mindset that her recovery will be gradual, and she works with the therapist to devise appropriate "homework" assignments to realize it. Small signs of improvement begin to appear little by little—she enjoys the taste of food again and finally finishes reading her book. The last two weeks in Atlanta are relatively manageable for her. Unfortunately, the move back home at the end of the six-month trial period proves disruptive, as is often the case for DBS patients. The combination of packing up, leaving the controlled setting of the study, and reintegrating into environments with emotional and behavioral triggers from one's past is inevitably fraught. For Betty, it is downright painful. Not only is she feeling helpless, still quite early in her "rough patch," but the house to which she is returning in Alabama waits for her full of boxes and piles of furniture covered in a layer of sawdust, as her son was behind schedule remodeling several rooms. Understandably overwhelmed (though still denying the relevance of environmental stressors), she goes so far as to claim that her depression has gotten "worse than before the surgery." She pleads for a biological solution, an increase in DBS voltage at the very least, convinced that it will make the difference. One of the doctors attempts to reassure her, to redirect her away from neuroreductionist narratives, and to recenter her agency:

> Psychiatrist 3: Can I make an observation? Just because I don't see you every week like they do.
>
> Betty: Yeah.
>
> Psychiatrist 3: You look nothing, nothing, nothing like you did before surgery.
>
> Betty: Really?

> Psychiatrist 3: You were a dead person pre-op. Even your face, even to have this kind of conversation—you weren't able to engage like this. Even just the way you look. I mean, you're totally different. We can also see that you're certainly not where you were when you were feeling so good. But every time we touch the device, with even minor modifications, the brain has to get used to it. It's not like you can keep turning it up—it doesn't work that way. We tried this with other people at the beginning, and it turns out that a) it doesn't work, and b) it isn't a good thing, because the brain has to re-equilibrate each time. We've gone back and looked at the scans, and we're certain that the electrodes are in the optimal place, and you have the ideal settings. We don't see any other choices being better, so we're very confident with that. And we always start voltage low with everyone but because you were already doing so well—without it being on—we thought we'd turn it on and leave it at a low dose and let it hold you while you start doing things, which it did. We always look at how someone is doing to decide whether to turn it up. And when you got worse, we approached you about making adjustments, as we do if somebody was starting off bad. So, we've made adjustments in our standard way, and now you're right in the sweet spot of the dose.
>
> People generally go through this process of recalibration in three or four months and then get to a good place. You sort of overshot, and we were all very happy with that, but now you're going through the recalibration part afterwards, and it's feeling like something's not right. I honest-to-God cannot explain why this order happened to you, but, looking at you now and hearing what the doctors have said, we have to work with you to trust yourself and push yourself a little bit to be active, even if what you feel isn't registering as positive yet. We need to figure out how to help you be comfortable with the greater emotional range and to be almost a little more forgiving to yourself in terms of being able to tolerate the negative, to build that resilience. If you can, try to think about the fact that we've gone over everything, we're confident in the location and settings, and just see those first months not as the goal but as a bonus. Now your job is to just work on being your best. You'll feel stronger in a month and then stronger in three months. Try to keep working and not be in a hurry, just pushing yourself to do a little more, to keep practicing and showing yourself that you are capable.

The doctor here explains why a biological solution is not available or indicated. Recovery depends on practice. But no matter how many times practice is recommended, it makes no difference if it is not actually executed. Betty fails to receive this as a message of empowerment. She instead responds over the next two months as if her last hope had just been extinguished.

Unconvinced and unsatisfied with her rate of improvement, Betty turns to more immediately felt coping strategies like self-medicating with alcohol and sleeping pills, occasionally together. It does not take long before this lands her in a treatment facility following an accidental overdose. After being stabilized and cared for over many days, she reflects with gratitude on this time in rehab. As she explains in her interview four months after moving back home, it saved her from the chaos into which she had descended both at home and in her mind. The near-death experience unquestionably shocked her out of her unhealthy ways. More importantly, she emphasizes, the treatment facility “provided me with the structure that I needed.” Its strict schedule and assortment of daily activities meant that she was “no longer doing the same thing over and over again, just vegetating.” The homework for which she was responsible during her DBS trial suddenly became compulsory. In Betty’s retelling, being deprived of some degree of autonomy was a necessary step for her to achieve greater autonomy. To put it another way, she discovered there the promise of habituation. More fully committed to the path of slow, steady recovery, she steels herself for the arduous task of building healthier habits to overcome now both depression and addiction.

With the goal of further reinforcing her healthy habits, Betty joins Alcoholics Anonymous and gives up drinking entirely. Liberated from survival mode once again, Betty’s sobriety becomes another locus of negotiation as she and Joe aspire to their new equilibrium. Joe now must decide how to adjust his own drinking habits. According to Betty, he normally “drinks beer when he’s puttering around in the garage, and he fixes a gin-and-tonic almost every night.” Managing another illness, addiction, will require another pivot in their efforts to share a life and a living space. Her account indicates that he was at first beset with urges to see things in all-or-nothing ways, stating as he mixed his nightly drink, “I know I’m not supposed to do this...” But, with clear communication abouts needs and expectations, they come to an agreement that he would moderate his intake rather than abstaining completely. Betty insists that she is genuinely not tempted by alcohol—she “only ever drank to numb the pain.” Exactly how strong her compulsions will be in the future remains to be seen, but the initial goal of their compromise is that drinking not be central to their evenings spent together. Baby steps. They agree that in this way neither of them will be resentful.

Each feels empowered to exercise their individual autonomy for the purposes of self-care while also respecting the other's needs. They are learning together that it need not be zero-sum.

Joint Autonomy

The proposed compromise between Betty and Joe is a tangible illustration of their evolving joint autonomy as well as an indication that they are starting to feel more unified in their marriage again. The theme of "balance" in their relationship figures even more prominently in Betty's final interview over a year later. Betty enters the room with a radiant smile, visibly more confident and composed. She has clearly committed to an exercise regimen and is again using her fashion as an expression of her creativity. To quote the interview at length:

> Psychiatrist 2: Wow, you look awesome!
>
> Betty: Well, thank you! Not bad for an old lady, huh?
>
> Psychiatrist 2: For any lady! How are you doing?
>
> Betty: I'm doing great. We've been traveling, just got back from Las Vegas, Zion, Grand Canyon…
>
> Stayed in the casino, and we saw Celine Dion and a ventriloquist. Then in August, we went to Washington for about 8 days, where I was able to reconnect with a cousin that I hadn't seen for like 40 years! And then we had a wonderful trip to Italy.
>
> Psychiatrist 2: How are you feeling?
>
> Betty: I'm feeling great. No depression. None.
>
> Psychiatrist 2: The last time you felt depressed was when you were in the hospital?
>
> Betty: Yeah. That was a year and a half ago.
>
> Psychiatrist 2: How do you tell the difference between being depressed and not being depressed?
>
> Betty: Depression is just a constant feeling of doom and gloom, like you've fallen in a well. Seeing no answer, no help. And I just haven't felt that at all since then.
>
> Psychiatrist 2: What's the difference between sadness and depression? Are they the same thing?

Betty: Not for me, no. Sadness is what you feel if you lose someone you're very close to, but with depression your whole outlook is just nothingness. There's just no joy. When you're sad you still have the capacity to feel joy, but not when you're depressed.

Psychiatrist 2: For most people, depression comes not only with feelings of no joy but with little energy, problems concentrating, trouble sleeping, and all those other symptoms—what of those have you had in the last year and a half?

Betty: None.

Psychiatrist 2: This is gonna be a very short interview!

Betty: What, do you want me to make something up? (*Laughs*) I'm being completely honest. I know it's miraculous. And I'm just so very grateful to have my life back.

Psychiatrist 2: When was the last time you had a period like this before the surgery?

Betty: I had this feeling right after surgery for five months, but before DBS… I would say six years ago I had a period of feeling good.

Psychiatrist 2: How are things going with Joe?

Betty: Going good! Enjoying traveling together and just everyday life, too.

Psychiatrist 2: And what are you doing now during Saturday Alabama football games?

Betty: Oh, we're watching 'em! (*Laughs*)

Psychiatrist 2: Are you enjoying them?

Betty: Yeah, I do; I just don't get into all the other football games. I leave those to him—he's switching channels during commercials to see everything, and I'm doing my own thing.

Psychiatrist 2: How's your daughter?

Betty: She's good. They're very excited, building their house. And we're adding another room to our house, too. So we're both under construction! We're always under construction (*laughs*).

Psychiatrist 2: What is like for you now to have a stressor like that and keep your mood up? Do you have a process you use, or how do you think about managing stressors now?

Betty: Well, I have a really good psychologist that I see regularly. She's helped me a lot, sorting things out, thinking about them more logically. And I learned with the psychologist here that every thought involves a chemical reaction in the brain, so if I'm starting to think too much about something negative, I need to do something active, just physically try to change what's going on in my brain. I'll go listen to music or go shopping, something active that I enjoy, and it works most of the time to help me not dwell too much on anything.

Psychiatrist 2: How are you keeping yourself busy on a day-to-day basis?

Betty: Between doctor's appointments, I help out at my grandson's school once a week, and I'm very active with church activities, seeing movies, eating out, staying busy with family and friends. There really aren't enough days in the week! We just participated in a weekend retreat with my church that was life changing. Just completely surrounded by love, it's an experience you can't describe.

Psychiatrist 2: Can you describe your experience of spirituality or religiosity now compared to a year and a half ago?

Betty: Well, I believe the same things, but I couldn't feel them then. I couldn't feel God's presence. I knew it was there mentally, but I couldn't experience it. That feeling has returned now, and it's much deeper. During depression, it's like there was a barrier, and I couldn't feel any guidance. Now I can connect. And it's hard to put into words, but it makes it so I don't have to fear or worry too much. I don't dwell on myself, absorbed into how I'm feeling. I'm much more motivated to be involved with other people and things. I was talking recently with the psychologist about priorities, and I told her that I had been thinking about how God is my priority and then Joe and then family and friends and whatever else is urgent at the time.

Psychiatrist 2: Where are you on that list?

Betty: Before Joe (*Smiles*). But that's only because all this would be for nothing if I wasn't making my health a priority. You're asking some tough questions today! (*Laughs*)

Psychiatrist 2: What do you think about in terms of what the DBS did for you?

Betty: With DBS, I was myself again. As a depressed person, I was not myself at all.

Psychiatrist 2: Do you think the DBS is taking away something that shouldn't have been there or giving you something you didn't have?

Betty: It's taken away the depression so that I could be myself.

Psychiatrist 2: If somebody suggests that you have a device that makes you feel happy, what do you think about that?

Betty: I don't think the DBS device can make you feel happy. It's made it so that my friends recognize me as the person I've always been—they all say, "I'm so glad you're back." They see that I'm finally back to being the person that they know and love.

The compromise has stuck. With trial and a good deal of error, Betty and Joe have emerged from the "rough patch." We see here that they share in activities that they both love and support each other in their individual passions. Betty even suggests that she enjoys watching Alabama football with Joe again. Over time, she and Joe have achieved greater security in their respective identities while also cultivating a greater respect for each other's needs. The two tasks go hand in hand. In other words, they work well as a team because they can each do their "own thing," and they enjoy doing their own things because they work well as a team. Betty's experience as a DBS patient shows us that recovery from depression requires recognizing that minds only exist within physical bodies and that individuals only exist within relationships. Overcoming psychiatric illness means attuning to this reality at multiple scales.

Betty and Joe both at times fell into the trap of thinking that their individual autonomies were in competition, that one of them would always have to give in to the preferences of the other. Perhaps paradoxically, this mindset actually risks failing in one's ethical obligations. By ceding control entirely to the other, one both abdicates responsibility and neglects the care of self necessary for functioning well in a demanding world. What looks like self-sacrifice might be better described as giving up, or what Murdoch calls "self-effacement."[54] With time, Betty and Joe learned that this overly individualistic and oppositional lens is detrimental, a step toward the atomizing, alienating state of "survival mode." Rather, their freedom is and ought to be a shared experience, a joint autonomy. They learned to navigate between the Scylla and Charybdis of quietism and domination. Their flourishing entails "unselfing" not to the point where one of them disappears as a subject but in a way that allows for adequate sensitivity to one another. As Betty explained, "all this would be for nothing if I wasn't making my health a priority." To respond well to one's ethical responsibilities, to realize one's identity as one-for-the-other, one must be stable, sturdy, well-maintained. However, though she may not have meant it this way, Betty is also correct to state that

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[54] Murdoch, "The Sovereignty of Good Over Other Concepts," 378.

“we’re always under construction.” This is the difference between humans and houses. We exist within networks of normative obligations that invest and dynamically reorient our consciousness. Who we are, how we think, and what we desire are constantly being updated in response to the needs of particular others around us. Through intentional practices and embodied interactions, we can work toward a golden mean, aspiring to the right relationship between autonomy and heteronomy. Attuned to the real world, we are empowered to better strike that healthy, sustainable balance.

Chapter 7: Conclusion – Self-fulfilling Prophecies

At the beginning of this dissertation, I provided an overview of the current neuroethics discourse about DBS, highlighting the urgent need for more empirical research into patients' phenomenological experiences. I also pointed out that much of the analysis surrounding such technologies relies on a relatively superficial conceptualization of autonomy, understood as little more than uncoerced preference satisfaction. While the increasingly popular notion of "relational autonomy"—accounting for situational factors that influence an agent's decision-making—is a major step in the right direction, we have now seen that autonomy ought also to be understood in more diachronic and teleological terms. We might refer to this new reframing as "aspirational autonomy." It is a capacity, a virtue even, to cultivate over time in response to the normative demands of one's circumstances. To respect and promote patients' autonomy, therefore, we have to learn who they really are and what really matters to them.[1] In the case of treatment-resistant depression, patients' conative function, or the ability to have things matter at all, is impaired, narrowed to matters of basic subsistence. Stuck in what we have labeled "survival mode," the way they see and think about the world is radically distorted. Their mind has become a prison, with attention constantly turned inward. Recovery, then, involves overcoming such distortions and learning new mental models, new ways of being in the world and seeing what really matters. DBS patients primarily talked about their autonomy in terms of this learning process—a process of deconstruction and reconstruction made possible by the effects of the device.

To help make sense of the patients' experiences, our guides along the way have been iconoclastic thinkers Emmanuel Levinas and Iris Murdoch with their distinctively ethical approaches to phenomenology. In Chapter 3, Levinas's concept of "sensibility" helped us to

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[1] Kleinman, Arthur. *What Really Matters: Living a Moral Life amidst Uncertainty and Danger*. New York: Oxford University Press, 2006.

appreciate our fundamentally affective relationship with the world, exemplified by patients' sense of the world "opening up" with the activation of their DBS device. Drawing on Levinas's evolving concept of "transcendence," Chapter 4 detailed the defining importance of the social aspects of that more expansive reality. DBS patients found that their basic conscious experience was given substance and directionality by their relationships of obligation with other people. Like Levinas, they indicated that ethics underlies our ontological categories, including identity and autonomy. These two chapters explored the initial, more sudden effects of the DBS as patients felt a shift in consciousness away from preoccupation with the self and toward being for-the-other. Through this new openness to alterity, patients find that their depressive categories and habits are no longer as rigidly ossified and can be remodeled. With the device activated, patients' prison doors are unlocked.

Chapters 5 and 6, on the other hand, illustrated the longitudinal process of rebuilding patients' mental models, capitalizing on that initial shift in consciousness. Using Murdoch's notion of "attention" and her philosophy of language, Chapter 5 followed patients as they sought more appropriate concepts and narratives with which to process their experience. A vital component of recovery, they found, is the "deepening of concepts," moving beyond the black-and-white thinking characteristic of depression and getting a better grip on the world's true complexity. Finally, in Chapter 6, I examined Murdoch's "unselfing" techniques and compared them with DBS patients' therapeutic practices as they worked toward recovery. As the patients made clear, the establishment of new mental models requires embodied practices—not just the learning of propositional truths but the training of "muscle memory." Autonomy is developed primarily through concrete everyday interactions with other people, learning to responsibly attune to their needs in addition to (and as part of) one's own. For these patients, recovery from depression and the rebuilding of their autonomy amounted to an exercise in moral formation. They had to learn practical steps to leave their prison behind and venture out into the unfamiliar world.

At different points in their journeys, several DBS patients worried that their improvements were “just the placebo effect,” that they were tricking themselves into feeling better. As mentioned at the end of Chapter 5, though, the effects of the DBS are likely impossible to disentangle from the placebo effect. They share a mechanism of action. We have witnessed this mechanism *in* action as we followed the patients’ stories of instantiating new narratives or “generative models,” in the parlance of cognitive science. Learning to descriptively reframe their experience changed how that experience was phenomenologically felt. The placebo effect—and the “meaning effect” more generally—points to the power of predictive processing as a unifying cognitive framework. By training our expectations, or the lens through which we interpret sensory data, we can remake even our physiological responses. Throughout this dissertation I have largely focused on the phenomenology of increasing receptivity to prediction error—cultivating sensitivity to incoming signals so as to dissolve and overcome distorted thought patterns. Yet, this is only one half of the predictive processing account. We can now tie everything together with a brief survey of the other half of the predictive processing framework, a cognitive strategy known as “active inference” that is necessary for the solidifying of new, healthier mental models.

In addition to changing your predictions to better match reality, you can also change reality to match your predictions. While this might at first sound like a God-like worldmaking power, it simply refers to our ability to act in the world, not just to be acted upon. In other words, another way to minimize prediction error—the brain’s *sine qua non*—is to do something that makes your predictions true. This is what is meant by active inference. Consider an example from the cognitive science literature:

> Unlike ‘passive’, perceptual inference processes (e.g., inferring the presence of an external object based on patterns of light impinging on the retina), the inferences underlying

> decision-making are 'active', in the sense that the agent infers the actions most likely to generate preferred sensory input (e.g., inferring that eating some food will reduce a feeling of hunger). Agents also infer the actions most likely to reduce uncertainty and facilitate learning (e.g., inferring that opening the fridge will reveal available food options).[2]

Your brain imagines what it would be like to successfully meet a goal and then takes steps to enact it.[3] Each of these steps can then be seen as a smaller, component task of prediction error minimization that contributes to the overarching goal. Prediction mechanisms occur at multiple nested timescales. Take another example: moving your head and eyes to follow the trajectory of a thrown football, running to the endzone where it is headed, and extending your arms to the perfect location for hands and pigskin to meet all make true the prediction that you will score a touchdown (and that your team will win, that you are a talented athlete, and so on). In this case, you are moving your body to generate the sensory input that corresponds with each prediction—in a word, self-fulfilling prophecy. Ultimately, this adds up to the fulfillment of higher-order, more abstract goals.

To achieve even the highest goals of mental health, happiness, and wellbeing, one of the best things a person can do is simply act—to move their body, generating and meeting new opportunities to resolve prediction error.[4] We saw the psychiatrists recommending this time and again in the form of "baby steps" on the path to recovery. Regrettably, this is not always as easy as it

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[2] Smith, Ryan, Karl J. Friston, and Christopher J. Whyte. "A Step-By-Step Tutorial on Active Inference and Its Application to Empirical Data." *Journal of Mathematical Psychology* 107 (April 1, 2022): 1.

[3] This has been labeled the "Ideomotor theory" of action, often attributed initially to William James. In this framework, higher-order goals and those seen as more valuable are weighted more heavily and shape sub-predictions. See: Stock, Armin, and Claudia Stock. "A Short History of Ideo-Motor Action." *Psychological Research* 68, no. 2-3 (2004): 176–88. Phenomenologist Alfred Schutz offered a similar account of "future-directed" motives and action: "…every action is carried out according to a project and is oriented to an act phantasied in the future perfect tense as already executed… other acts are intermediate aims oriented to the final one… the action which leads up to this goal exists within a meaning-context for me." (*The Phenomenology of the Social World*. Translated by George Walsh and Frederick Lehnert. 1932. Reprint, Evanston: Northwestern University Press, 1967: 87-88).

[4] Zhao, Yujie, Yang Liu, Barbara J. Sahakian, Christelle Langley, Wei Zhang, Kevin H.M. Kuo, Zeyu Li, et al. "The Brain Structure, Immunometabolic and Genetic Mechanisms Underlying the Association between Lifestyle and Depression." *Nature Mental Health*, 2023.

might seem. The people most in need of these opportunities, such as patients with treatment-resistant depression, have the hardest time initiating them. TRD patients are trapped in a cognitive rut dug so deep that it has become a pit with no way out. As I discussed in Chapter 2's introduction to predictive processing, "survival mode" results from a vicious cycle of hopeless predictions leading to behaviors that fail to disconfirm depressive distortions (e.g., staying at home in bed reinforcing the expectation that no meaningful change is possible).[5] Active inference mechanisms have gone awry. Patients' local reality has been morphed to confirm and conform to their depression; they are unable to break free to explore anything beyond it. Interestingly, this can be understood as a paradoxical and oddly effective process of prediction error minimization: if the brain's underlying objective is accurate prediction, then rendering the environment relatively free of stimulus and change is a good way to accomplish that.[6] As an existential coping mechanism, depression has an unfortunate logic. Clearly, though, prediction error minimization in a moment is insufficient for happiness and wellbeing. These highest-order goals result from the replacement of vicious cycles with virtuous ones, attuning to reality not only locally but globally.

Here again we need a longitudinal, wider lens approach. What matters for the cultivation of a healthier, happier habitus is the management of prediction error *over time*, otherwise known as "error dynamics." Recall from our discussion of Lisa Feldman-Barrett's research that our affective experience arises from interoceptive self-monitoring. Emerging evidence also suggests that the positive or negative valence of our affect reflects not a cross-sectional instance of self-assessment, but a trajectory. Feeling good, for instance, means that we are doing "better than expected" when it comes to meeting our predictions and getting a grip on our environment, according to predictive

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[5] This is also known as the theory of "learned helplessness." See: Abramson, Lyn Y., Martin E. Seligman, and John D. Teasdale. "Learned Helplessness in Humans: Critique and Reformulation." *Journal of Abnormal Psychology* 87, no. 1 (1978): 49–74.

[6] This has been referred to as the "dark room problem" among theorists of predictive processing. See: Friston, Karl, Christopher Thornton, and Andy Clark. "Free-Energy Minimization and the Dark-Room Problem." *Frontier in Psychology* 3 (2012): 1–7.

processing scholars Mark Miller, Julien Kiverstein, and Erik Rietveld.[7] Subjective wellbeing results from "learning how to adapt to the demands of the environment more efficiently" over an extended timescale, attaining "good slopes of error reduction."[8] Central to a predictive processing account of happiness, then, is the ability to learn—to attune increasingly well to the particular details of one's context. Positive affect is the signal that we are succeeding in this endless task.

In light of this diachronic account, we can see that humans need to strike a balance between reliable mental models and the ability to critique and revise them. Insensitive to prediction error, overly rigid models manifest as the static phenomenology of depression. If, on the other hand, we are overly sensitive to incoming sensory data, we are overwhelmed by chaos as we fail to assimilate new signals into our models at all.[9] Mental health and wellbeing reflect that "golden mean" invoked by the DBS patients—between predictability and unpredictability, growing in our ability to achieve more complex goals.[10] Miller, Kiverstein, and Rietveld use the term "metastable attunement" to describe this dialectical poise between stability and instability, flexibility and robustness, adding:

> The *key question* the brain must settle to find the right balance between top-down and bottom-up styles of processing is whether the agent is in a context in which habits can be relied upon to bring about valuable outcomes. Should the agent instead invest effort to explore for more valuable outcomes that do a better job of fulfilling long-term goals?[11]

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[7] Miller, Kiverstein, and Rietveld. "The Predictive Dynamics…," 20.

[8] Miller, Kiverstein, and Rietveld, "The Predictive Dynamics…," 20.

[9] This is a leading hypothesis for the underlying mechanisms of autism spectrum disorder—that people with ASD tend toward the overweighting of incoming signals.

[10] Leading philosopher of predictive processing, Andy Clark, calls this "surfing uncertainty": "A skilled surfer stays 'in the pocket': close to, yet just ahead of the place where the wave is breaking… The brain's task is not dissimilar. By constantly attempting to predict the incoming sensory signal we become able… to learn about the world around us and to engage that world in thought and action." (*Surfing Uncertainty: Prediction, Action, and the Embodied Mind*. New York: Oxford University Press, 2016: xiv.).

[11] Miller, Kiverstein, and Rietveld, "The Predictive Dynamics…," 22 (Emphasis added).

Sometimes, long-term prediction error minimization involves the short-term induction of uncertainty and stress.

To use Lance's analogy from Chapter 5, this is not unlike the need to subject muscles to temporary strain in the process of getting stronger. Combined with our ability to reframe and contextualize such experiences within meaningful narratives, such strain and uncertainty can even be experienced as rewarding (think of a good day at the gym). Julie also identified this phenomenon, explaining in one of her interviews that overcoming stresses is part of the long road to autonomy facilitated by DBS:

> Julie: It feels like this transition occurred where I had been totally numb, and then I started feeling pain again. And then I started recognizing that it's okay to feel the pain, that it's not going to kill me or anything. And then I saw that if I work at it, I can get through the pain and put it behind me. Now I can also kind of recognize that there's happiness in the world and I can take part in that too. It's okay. It's safe. It's not, you know, going to freak me out or anything.
>
> Psychiatrist 1: Why would it freak you out? Why does it ever feel unsafe to take part in happiness?
>
> Julie: My guess is for fear of it being taken away—not knowing if I'll fall back into depression. That's my guess. Like if I step on this beautiful carpet that just makes me feel like I'm happy and enjoying life, all of a sudden somebody might pull the rug out from underneath me, and I'd fall right back into that well. And that's made me afraid to move forward. But I do think that CBT is helping me with that, you know—to learn that I am actually in control now, and that I can trust that I am able to sense when things are going bad and change them. I've still got a lot more work to do.

Uniting the meaning effect (reframing) and active inference (habituation), the predictive brain has the power to initiate positive feedback loops conducive to flourishing.

The "key question" mentioned by Miller, Kiverstein, and Rietveld is how to know when to override local prediction error dynamics for the sake of the global. As Murdoch and Levinas both showed us, however, this question can only be asked in the first place because we are social beings, because the abovementioned "demands of the environment" are ethical in nature. The presence of others is what calls us to account for our extant generative models, raising the question of whether or not they should be overridden, overwritten, or reinforced as our eyes are opened to higher and higher goals and goods. Cognitive science has come to discover that fundamental human imperative described by our ethical phenomenologists: the need to overcome the temptations of our totalizing and self-consoling tendencies. Often, we need to embrace otherness—to hospitably welcome that which we cannot control or fit into our prior categories.

Because of their emphasis on receptivity and heteronomy, Levinas and Murdoch have both been criticized for promoting a type of quietism, or tendency toward over-accommodation.[12] I did not aim with this project to resolve debates about the correct interpretations of their work. Yet, the experience of DBS patients and recent findings of cognitive science do shed light on the practical limitations of certain readings, drawing our attention to the strengths of more moderate interpretations. At the end of Chapter 6, I argued that relationships based in self-abnegation reflect a harmful zero-sum framing of autonomy.[13] When Betty and Joe believe that only one of them can exercise autonomy at a time, they both suffer. We are better served with an approach to autonomy that is *inspired by* an asymmetrical, infinite call but that *manifests in* more balanced, sustainable ways. I mentioned in Chapter 3 that this is precisely how Levinas defines "justice"—the need to respond well to the demands of not just the other person before you but also to "the third," as well as other others.[14] This is the realm of ontology, along with its necessary reification of incomparable relationships of infinite obligation into imperfect models of comparison. In Murdoch's later work, she similarly moderated her claims, insisting that *eros* must always be accompanied by

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[12] See, e.g., Lovibond, Sabina. *Iris Murdoch, Gender, and Philosophy*. New York: Routledge, 2011.

[13] Levinas specifically cautions that "substitution" for the other "would not be suicide nor a resignation but would be love" (*Totality and Infinity*, 253). Similarly, Murdoch distinguishes herself from the more extreme views of Weil: "Simone Weil felt a natural affinity with this 'extremism' which indeed she practised in her own life." (*Metaphysics as a Guide to Morals*, 247). I would argue that this is an important distinction between Murdoch's concept of "unselfing" and Weil's more radical "decreation."

[14] Levinas, *Totality and Infinity*, 213. He writes: "Language as the presence of the face does not invite complicity with the preferred being, the self-sufficient "I-Thou" forgetful of the universe; in its frankness it refuses the clandestinity of love, where it loses its frankness and meaning and turns into laughter or cooing. The third party looks at me in the eyes of the Other—language is justice… the epiphany of the face qua face opens humanity." This notion of justice is also the fulcrum of the shift from ethics to politics. For a book-length treatment of this topic in Levinas, see: Morgan, Michael L. *Levinas's Ethical Politics*. Bloomington: Indiana University Press, 2016.

responsiveness to duty, a “necessary corrective against the subjectivism implicit” in her earlier writing.[15] She refers to a “continual volatile dynamic relationship” between the “inner” drive toward the good and the need for stable shared, “external” heuristics, rules, and principles.[16] Practically speaking, these ontological categories function as useful affordances necessary for the effective fulfillment of one’s obligations. They allow for the coordination of non-zero-sum aspirations with others and the achievement of more global metastable attunement to one’s environment.

Such a balancing act between ethics and ontology, openness to prediction error and the construction of generative models, occurs not only at multiple timescales, but also at multiple levels of attunement. The first, reflected in our affect, is *internal* attunement. Even though—and, indeed, because—our autonomy is invested first by heteronomy, we must take proper care of ourselves. The needs of the self are not inconsequential. As Levinas writes, “matter is the very locus of the for-the-other,” meaning that we must attend to our material body in order that we be physically capable of caring for another at all. Accurate interoception ensures that we provide for our actual (rather than misperceived) needs. This in turn enables us to achieve *horizontal* attunement, or harmony with others at the social level. Confident that our own basic needs are met, we can take the relatively controlled risk of making our borders more porous, of being more receptive to alterity, uncertainty, the unassimilable. As Julie put it, “I’ve learned that being vulnerable is a strength, not a weakness—that being vulnerable is what it takes to improve relationships.” Likewise, Levinas asserts that “communication with the other can be transcendent only as a dangerous life, a fine risk to be run.”[17] Through openness to otherness we are freed, pulled out of ourselves to higher callings, to long-term aspiration, to true autonomy.[18] It is in this way that we

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[15] Antonaccio, *Picturing the Human*, 155. I described this shift in emphasis in Chapter 6.
[16] Murdoch, *Metaphysics as a Guide to Morals*, 349.
[17] Levinas, *Otherwise Than Being*, 120.
[18] Compare this with Martha Nussbaum’s positively Murdochian claim in an essay on the ethical cultivation of perception that “a willingness to surrender invulnerability, to take up a posture of agency that is porous and

can also achieve *vertical* attunement, such as when Betty described her restored sense of divine mission and spiritual purpose at the end of Chapter 6. In our encounters with other people, we are awakened to the good, holy, transcendent—that metaphysical source of value that pierces our understanding and demands better of us; relationships of obligation are how we bring heaven down to earth.

We have now finally arrived at a thicker conception of the self, the unified center of this attunement experience, so conspicuously sidestepped by the more procedural frameworks of mainstream bioethics. On my account, the self is defined by its longest-term, highest-order aspirations.[19] As I discussed in Chapter 4, DBS patients emerging from survival mode conceptualize their identities chiefly in moral terms. For these patients, what is "recovered" in recovery from depression is not the self as a static object retrievable from their pre-illness days, but as a work always in progress. Similarly, while there are certainly differences in their accounts (and ambiguities within both of their accounts), Murdoch and Levinas both point to a gap that exists within the self, either between "the ego" and "the self" or between "the Me (*le moi*)" and "the Self (*le soi*)." In both cases, that gap refers to the distance between who one is and who one ought to be. Autonomy is the capacity to navigate that gap, and it ultimately rests on the ability to "unself," to cultivate more porous borders so as to attend to the face of the other. In other words, the self is never an isolated individual but a being-in-relationship. DBS patients tended to find their choices were rendered intelligible and their identities rendered substantive when placed in the context of shared overarching ethical narratives, when they worked to close the gap between is and ought.[20] When we care for others, we become more ourselves.

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susceptible of influence, is of the highest importance in getting an accurate perception of particular things in the world." (*Love's Knowledge*, 180).

[19] For a similar conception of self defined by "longest-term intentions" see Alasdair MacIntyre's *After Virtue*, 193.

[20] Charles Taylor, disciple of both Murdoch and the phenomenological tradition, and preeminent theorist of self writes, "We are selves only in that certain issues matter for us. What I am as a self, my identity, is essentially defined by the way things have significance for me… we are only selves insofar as we move in a certain space of questions, as we seek and find an orientation to the good." (*Sources of the Self: The Making of the Modern*

Now that we have filled out our predictive processing account, listened closely to the firsthand experiences of patients themselves, and analyzed those experiences with resonances in the ethical phenomenology of Levinas and Murdoch, we can more fully appreciate why DBS is not an instantaneous cure for refractory depression. Recovery involves overcoming deeply ingrained mental and behavioral habits and learning to respond more effectively over time to the dense web of ethical affordances in which each patient finds him- or herself. This requires more than a one-time neurophysiological fix. Patients need help escaping their prison of depression from multiple coordinated angles, accounting for the whole "ecology of mind," described in Chapter 2.[21] DBS normalizes activity at the neural interchange responsible for predicting the body's metabolic needs, so that patients can turn their attention outward, no longer interpreting the world through the lens of mere survivalism. But that means that it is only a first step. As Zach put it:

> I feel like the DBS does what medication can do for some people with depression. It can address part of the chemical or neurological side of things. But with the mental piece—in my case, ten years, and for other people even longer—you've learned that certain way of life, and to unlearn it and change it for the better takes time and it takes hard work. But without the DBS that work wouldn't be possible. It's like the DBS empowers you.

With the help of a battery (connected to precisely placed electrodes), patients are literally empowered to begin asking that "key question" about whether they should trust or overrule their current interpretations of the world. Otherness can then be seen as an opportunity to learn rather

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Identity. Cambridge: Harvard University Press, 1989: 34). On Taylor's debt to Murdoch, see: Taylor, Charles. "Iris Murdoch and Moral Philosophy." In *Iris Murdoch and the Search for Human Goodness*, edited by Maria Antonaccio and William Schweiker, 3–28. Chicago: University of Chicago Press, 1996.

[21] Note that this bears greatly on how psychiatrists and other health care professionals treating patients like these should understand their practice. We can see clearly here the need to resist the temptation to function as what Atul Gawande calls "Dr. Informative," robotically offering facts, figures, and data without assisting patients to more fully understand the situations in which they find themselves. Physicians have a responsibility to support patients in their decision-making beyond informed consent procedures, actively empowering their exercise of autonomy by learning at least something of their personal stories. (Gawande, Atul. *Being Mortal: Medicine and What Matters in the End*. Picador, 2013: 202).

than an active threat to avoid.[22] Sensitivity to prediction error restored, patients can then strategically draw on practices to admit more prediction error and, through active inference, reinforce generative models that align better with the world as it really is. Operating at various timescales and levels, positive feedback loops can be generated that contribute to the achievement of highest-order goals.[23] The aspirational self is realized through a lifetime of self-fulfilling prophecies.

This account of autonomy and the self should help us avoid moralizing interpretations of depressive illness. Not only are DBS patients so severely incapacitated by their illness that they need such a "last resort" intervention, but even after it is activated, the subconscious temptations of distorting narratives remain ever present and are especially strong for those who have inhabited the depressive way of life for so long. Human consciousness requires ontological categories for coping with the world, and those categories are all too easy to mechanically distort in defense of the ego. As emphasized by Levinas, Murdoch, and the phenomenologists of illness we encountered, the vicious cycles underlying depression are normal psychological processes gone awry, not a moral failing. Moreover, many patients had experiences that would be hard for anyone to face without a defense mechanism making it even slightly more bearable. Digging deeper into a pit or locking themselves in a room for protection is often a reasonable response to such trauma.[24] Even though

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[22] Compare this with the model offered by Robin Carhart-Harris and Karl Friston known as REBUS (Relaxed Beliefs Under Psychedelics), in which psychedelic drugs temporarily disrupt rigid mental models, allowing other ways of perceiving and understanding, less influenced by one's prior expectations. See: Carhart-Harris, Robin L., and Karl J. Friston. "REBUS and the Anarchic Brain: Toward a Unified Model of the Brain Action of Psychedelics." Edited by Eric L. Barker. *Pharmacological Reviews* 71, no. 3 (2019): 316–44.

[23] As we saw throughout the last chapters, patients did things like write themselves notes, keep a journal, talk through things out loud with their therapist—all of these are proactive ways of letting in prediction error that the brain needed help with as they took "baby steps" toward recovery. Much like the practice of using mirror therapy to treat phantom limb pain, these strategies all provide another way for the brain to "see" that its prior models need updating. On mirror therapy, see: Chan, Brenda L., Richard Witt, Alexandra P. Charrow, Amanda Magee, Robin Howard, Paul F. Pasquina, Kenneth M. Heilman, and Jack W. Tsao. "Mirror Therapy for Phantom Limb Pain." *New England Journal of Medicine* 357, no. 21 (2007): 2206–7.

[24] "The survival skills of a traumatized child… become the distortions of a suffering adult," as psychiatrist Karl Deisseroth wrote (*Projections: A Story of Human Emotions*. New York: Random House, 2021: 114).

all patients spoke about escaping the “selfishness” or “self-centeredness” of depression, they saw it as a condition that they could not escape on their own. As Julie and Susan both clarified in Chapter 4, they were not choosing to be in “survival mode” or giving in to selfish desires; they had no compelling desires. If anything, their singular desire was to be freed of their illness. But because this global desire was too far removed from local error dynamics in which they were imprisoned, there was little they could do to realize it alone. They and the other patients described being utterly closed off to affordances, even—most painfully—ethical ones. Several times we have come across the motif of feeling frozen, in need of thawing out. This is not an immoral condition but an amoral one (that may sometimes feel like a moral failure from within).

At this point, though our focus has been the phenomenology of recovery, it is also important to highlight the fact that not every patient does recover. Some patients never fully thaw out. Not everyone who has a device implanted is a responder, and, among those who do respond, not everyone achieves complete remission.[25] Life is difficult, even with technological support. Given that DBS is decidedly not a quick fix, there are many points at which it can fail, points where patients are susceptible to being refrozen. In Betty’s case, we saw in Chapter 6 that had she not been admitted to a rehab facility, she was likely headed in a tragic direction, falling back into her depression. Even if patients initially have their sensitivity enhanced, new mental models have to be built up. This takes hard work and depends on myriad conditions being just right. As an important one of those conditions for success, most patients continue to rely on their previous antidepressant drugs in addition to the DBS. Recall from Chapter 5 Lance’s adverse experience tapering his medications too quickly. The study’s psychiatrists have found that DBS seems to make the brain more receptive to other interventions. Julie explained to me in her follow-up interview that “DBS gets me out of bed, but I still need ketamine treatments to get me out of the house.”

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[25] See Footnote 10 from the Introduction for definitions of “response” and “remission.”

In the end, conditions are not always right. For example, Toni was hit with a catastrophic sequence of life events, including her partner Calvin's untimely death, such that the DBS was not able to sustain her.[26] Her initial response to the treatment did not stick, and she went on to have her device explanted as she continues to seek other solutions. While the DBS functions as a support, it is not a guarantee of mental health. There are many more moving pieces to coordinate in becoming "well-adjusted." Sometimes tragic conditions predominate, and recovery is not available even with the help of cutting-edge technologies. Sometimes patients' efforts are devastated through no fault of their own, and they fall back into what Murdoch calls "void."[27]

Looking back, now at the conclusion of our journey, what have we learned from the DBS patients about autonomy? What is missed by the thin, voluntaristic views of autonomy central to mainstream bioethics? Firstly, we have learned about the importance of avoiding the same reductionist paradigms of autonomy that so often tempt depressive patients—the radical willpower model and biological determinism. Reality is much more complex, filled both with factors over which we have control and those to which we are subject. Humans have agency, but it is not without limits. More importantly, rather than thinking in terms of decision theory, with its focus on how individuals make a given choice in discrete decontextualized dilemmas, we have learned that

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[26] Admittedly, it can be hard to disentangle causes of relapse (or of depression in the first place)—we cannot definitively know if it was due to specific precipitating experiences or something else. My account in this project would suggest that these things can't be completely separated in the end anyway. Sometimes relapses are simply due to bad luck, but there are always structural or systemic elements in play as well. Feminist scholars, such as Lisa Tessman, have done invaluable work analyzing the conditions necessary for freedom, virtue, and human flourishing, which are often denied or unavailable to people in oppressed and otherwise disadvantaged positions. See, for example, her chapter "Critical Virtue Ethics: Understanding Oppression as Morally Damaging," in *Feminists Doing Ethics* (edited by Peggy DesAutels and Joanna Waugh, 79–99. New York: Rowan & Littlefield, 2001). Tessman's account of "psychic damage" helpfully encapsulates the phenomenon of internalized oppression and the debilitating psychological sequelae that can result, sometimes culminating in severe psychiatric illness (82-85).

[27] Murdoch, *Metaphysics as a Guide to Morals*, 498. A Murdochian interpretation of refractory depression—as the loss of one's ability to meaningfully aspire—resonates not only with Levinas's account of "useless suffering," as discussed in Chapter 3, but also in many ways with contemporary accounts of "moral injury." See, for instance: Wiinikka-Lydon, Joseph. "'What Can I Call That Hurt?': Iris Murdoch, Interiority, and Moral Injury." *Journal of Religious Ethics* 49, no. 3 (2021): 495–517.

choice is only intelligible in aspirational context. Autonomy is not exercised in a moment with the pursuit of established preferences or desires; instead, every choice transforms us and our desires, augmenting our landscape of salient affordances and adjusting our trajectory as we work toward our highest goals. Choices are opportunities not only to enact our values but also to discover and refine them. They are opportunities to be affected by the claims upon us, to respond well to them, and to become better with every response. Through action and interaction, we learn, and our mental models develop. As Levinas and Murdoch help us see, true autonomy is grounded in receptivity—the capacity to detect what is demanded of us and react appropriately. It is not simply a matter of sensing more affordances or of choices proliferating. Rather, autonomy consists of harmonizing with the shared, complex world in which we find ourselves. As the DBS patients confirm, the cultivation of autonomy is an irreducibly ethical project—reflective consciousness itself is made possible and gets direction, meaning, and intelligibility from our relationships with others.[28] Autonomy is not just relational, but responsible. In a sense, autonomy refers not to choosing but to being chosen.

DBS patients' experiences reveal that we need to be freed by another from our drive to interpret the world through a lens of self-preservation. The presence of vulnerable others comprehensively restructures how we perceive, desire, think, and choose. They redirect our attention and inspire us to care for things greater than the self. In responding well, we transcend from conatus to calling. This less individualistic interpretation should augment standard predictive processing accounts, doing better justice to the phenomenology of morality and autonomy. While DBS patients' extraordinary circumstances cast in sharp relief what the escape from survival-driven consciousness looks and feels like—indeed, it largely defines whether or not the therapy is effective—such an escape is fundamental to ordinary human subjectivity. To be a subject is to be

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[28] In the words of Alasdair MacIntyre, "Acknowledgement of dependence is the key to independence." (*Dependent Rational Animals*. Chicago: Open Court, 1999: 85). Or as philosopher Roger Scruton puts it, "the field of obligation is wider than the field of choice." (*On Human Nature*. Princeton: Princeton University Press, 2017: 116).

subject to normative claims, to be held accountable. Sharing our lives with other people transforms the goals that structure our predictive processing. The way we relate to the world—our "controlled hallucination" or the filter through which affordances solicit our attention—is given shape by the norms and claims to which we submit. We all have a responsibility to train our perception, interpretation, motivation, and responsiveness to the landscape of affordances in orientation to the good.[29]

The course of recovery with DBS also teaches us about the path to wellbeing. Just as autonomy is invested by heteronomy, human flourishing is best achieved through the fulfillment of ethical responsibility. Happiness of the most profound kind arises when one chooses "to love Good for nothing," as Murdoch puts it.[30] Levinas similarly writes that the other "compels me to goodness, which is better than goods received."[31] A virtuous life is good medicine. And happiness is a side-effect.[32] While we should be careful not to assimilate infinite responsibility too neatly into self-help prescriptions, DBS patients' experiences suggest that a more profound joy results from long-term aspiration for-the-other rather than the pursuit of momentary pleasures. As Lance demonstrated in Chapter 5, to arrive at happiness and freedom, you sometimes have to relinquish the immediate need for them and aim for something else. This doesn't require absolute selflessness, but it does require accepting that they result from a life that prioritizes things other than the self and the satisfaction of preferences. In her novel *The Nice and the Good*, Murdoch writes:

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[29] J. J. Gibson himself, one of the forebears of predictive processing, called this the "education of attention" (*The Ecological Approach to Visual Perception*, 254).

[30] Murdoch, *Metaphysics as a Guide to Morals*, 344.

[31] Levinas, "God and Philosophy," 141.

[32] As discussed above, happiness as a side effect is no guarantee either. Ethics cannot be reduced to the therapeutic. More than a comfortable or pleasurable life, what matters for Murdoch and Levinas is a good life and goodness "beyond life," as Charles Taylor writes in a chapter on Murdoch, continuing: "goodness cannot be entirely or exhaustively explained in terms of its contributing to a fuller, better, richer, more satisfying human life. It is a good that we might sometimes more appropriately respond to in suffering and death, rather than in fullness and life—the domain, as usually understood, of religion." (Taylor, "Iris Murdoch and Moral Philosophy," 5). He concludes his chapter by arguing that metaphysically privileging the good (even over life) results in "the practical primacy of life [and the relief of suffering]… a great gain for humankind" (28). One might say that it is more therapeutic than a strictly therapeutic approach to life.

> Happiness… is a matter of one’s most ordinary everyday mode of consciousness being busy and lively and unconcerned with self. To be damned is for one’s ordinary everyday mode of consciousness to be unremitting agonizing preoccupation with self.[33]

For people with treatment-resistant depression, turning on the DBS device is a first step on the journey away from damnation.

But happiness involves a lifetime of steps from there, as patients learn to perceive, desire, and aspire anew. Autonomy is the cultivated capacity to unify these everyday functions in attuning to reality, initiating self-fulfilling prophecies that narrow the gap between who we are and who we ought to be. The father of modern neurology, Jean-Martin Charcot, famously wrote, “In the last analysis, we see only what we are ready to see, what we have been taught to see.”[34] In the presence of another, we can be taught to see more of the world, brought out into the light of the sun. Eyes turned up to meet their gaze, *you will prophesy with them, and you will be transformed*.[35]

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[33] Murdoch, Iris. *The Nice and the Good*. New York: Penguin, 1978: 187.

[34] Compare this with Murdoch: “I can only choose within the world I can see, in the moral sense of ‘see’ which implies that clear vision is a result of moral imagination and moral effort.” (“The Idea of Perfection,” 329).

[35] Samuel I 10:6

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