of new ways of conceptualizing mental illness, and humbler about what medicine can truly offer those suffering from psychiatric disorders. Psychiatry should not be faulted for striving to be scientific, but it requires a science that eschews reductionism and embraces complexity at all levels from the cellular-molecular to the psychosocial.

While reading, I was both captivated and horrified by the extent to which the history of psychiatry serves as a case study for chronicling the all-too-human frailties that impinge and shape disciplinary knowledge—and can push medical specialties to extremes, as happened with psychiatry's dalliance with eugenics. Harrington's narrative lens also offers a cautionary tale of how an overreliance on reductionist biology fails in the face of complex multifactored disorders. The history of psychiatry, as it unfolds in Mind Fixers, helps to explain why severe psychiatric diseases continue to devastate the lives of so many and why cures remain elusive. As the identities of the etiologies of severe mental illnesses continue to elude researchers, so the effectiveness of treatments for individuals remains highly uncertain.

If taken seriously (and it should be), Mind Fixers should launch a national conversation among medical policymakers and mental health advocates about what could be done differently so that the research and treatment communities don't repeat the mistakes of the past. Looking forward, the field cannot afford to continue the trends characterizing the transition from the twentieth into the twentyfirst century—a period when, to quote Harrington, psychiatry "overreached, overpromised, overdiagnosed, overmedicated, and compromised its principles." It is a moral imperative that the field do better.

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## **Critical Rejection**

**ERIC TRUMP** 



## Desirable Body

by Hubert Haddad, translated by Alyson Waters. New Haven, CT: Yale University Press, 2018, 232 pp.

In her 1930 essay "On Being Ill," Virginia Woolf laments the absence of a literature of illness. "Considering how common illness is," she writes, "how tremendous the spiritual change that it brings, how astonishing ... the undiscovered countries that are then disclosed," it is regrettable that illness "has not taken its place with love and battle and jealousy among the prime themes of literature." Since then, writers have taken up her call, filling bookshelves as they turn illness—often their own—into metaphor. This despite the writer Susan Sontag's 1978 warning that "the most truthful way of regarding illness ... is one most purified of, most resistant to, metaphoric thinking."

One strain of this pathographic literature is the transplant narrative, which explores the metaphors unleashed when the flesh of one body is transferred to another. Most real-life transplants today are routine enough to have a tripartite structure. The experience begins in separation from the world and one's self-separation through illness or accident for the recipient, and through excision surgery for the living donor (or death for the cadaveric donor). Then comes the transformation in the operating theater, as one body loses an organ to another body, and a new way of being unfolds. Finally, recipient and donor (if alive) are reincorporated into the world they had left, their bodies scarred with the evidence of their respective journeys, the recipient "reborn" and coming to terms with a new organ in but not of his or her body.

These three stages, with their arc of crisis, death, and rebirth into something rich and strange, lend themselves to storytelling. The bodies-into-otherbodies genre in English began, plausibly, with Mary Shelley's Frankenstein; or, The Modern Prometheus, in which an entire creature is stitched together from bits of anatomy harvested from the charnel houses of Europe. By now, stories that handle modern organ transplantation, with its bureaucracy and technology, its gore and wonder, have entered the cultural blood stream. Transplanted kidneys, hands, eyes, hearts, faces, livers—all have been translated into art and given various trajectories, from healing to haunting, in novels, urban myths, poems, memoirs, and films.

Hubert Haddad's Desirable Body was published in 2015 in French and translated into English by Alyson Waters for Yale University's Margellos World Republic of Letters series. This is a novel that takes seriously Woolf's call to place bodily (mal)function in the same arena as jealousy and love. Haddad tries to deploy his protagonist's travails as a vehicle with which to explore the possible meanings and realities of whole-body transplantation, specifically as they relate to the question of what constitutes the self—if such a thing exists—and how that self relates to a body.

But before his story begins, Haddad speaks directly to the reader in a peculiar prologue that reads like a slaphappy transhumanist manifesto: "Soon immortality will no longer hold any secrets for humankind.... Everything that science has promised us will inevitably come to pass. In probable conjunction with bionics, transplant surgery will be able to reconstitute an entire person." A few people, he continues, will be fortunate enough "to experience several consecutive lives with one and the same head, pathfinders for a perennial humanity."

In a final Nietzschean geyser Haddad sees a bright future, when "the human species has emerged from its coma and completely rewound the clock of the apocalypse," when "children and idiots will ask with complete candor what the world was like before the creation of human beings." It's not clear whether he's describing utopia or hell, or who will pay for the surgeries and immunosuppressants these immortal *Übermenschen* enjoy. What is clear is that for Haddad, wholebody transplantation is a longed-for possibility.

If his prose style seems labored at the outset, it gets only worse. Haddad soon enters a fog of pretentious banality and predictability: one character is "chilled to the bone" and "grasping at straws" on the same page, while another sneaks away "like a thief in the night." Just in case anyone missed that Haddad sees himself as Mary Shelley's successor, a transplant surgeon cries, "We are the modern Prometheuses!" As the novel lurches along, the more leaden the pronouncements become: "A world without humanity does not exist, or if it does, it does so only at the nethermost regions of a cadaverous dream." Whether a problem with the original or the translation, this tedious prose doesn't make for enjoyable reading.

*Desirable Body* tells the story of Cédric Allyn-Weberson, scion of a wealthy pharmaceuticals magnate,

Morice, whose laboratories go by the acronym MAW. To live free of his father's shadow, Cédric lives incognito by growing a beard and wearing spectacles. He works as a journalist and goes by the name Cédric Erg. He keeps his true identity hidden even from the love of his life, a war correspondent named Lorna Leer.

Until, that is, she discovers his real identity and that Cédric had been "cheating on her with himself, with a stranger"—an odd way of thinking about a person using an assumed name, but pertinent to the novel's concerns with identity and doppelgängers. While vacationing on a yacht off the coast of the Aegean island Paros, Lorna determines to end their relationship. Before she can, Cédric suffers a terrible accident involving a winch. He is left a quadriplegic and barely alive. This is when his father, who has been spying on his son the whole time, reenters his life, providing him the best care available.

This includes a new body. Morice enlists the skills of an Italian neurosurgeon, Georgio Cadavero. In addition to the corpse allusion, the fictional surgeon's surname is only one letter shy of Sergio Canavero, the actual Italian neurosurgeon who has often and publicly proclaimed he would be the first to transplant a human head onto a new body. Sergio Canavero is as grandiose as Haddad in his prologue, beginning his TEDx presentation with, "Are you sitting tight? I'm about to give you one hell of a ride!" He goes on to explain how, because of his head transplants, people will live forever. His transplant project is humbly named HEAVEN, for "head anastomosis venture." Like Cadavero in the novel, Canavero is very confident, claiming success is almost guaranteed.

Cadavero, the novel's surgeon, places Cédric's head—"worth 12 million dollars"—atop a new, muscular body. Cédric not only survives but thrives as a "luxury guinea pig,"

remarkably without a single negative immune response. Lorna falls more in love with him than ever, not least because of his strange new "desirable body." (An assumed name was too much for her, but an assumed body is acceptable.) Cédric rightly suspects she is more excited by his new body than his head.

Eventually, he suffers from a version of what psychologists have called "Frankenstein Syndrome," in which the transplant recipient is horrified by the thought of incorporating a dead person's body part. This syndrome plagued the world's first hand transplant recipient, Clint Hallam, until he had surgeons remove the offending hand. Cédric's head is attached to a dead person's body, and he no longer knows who he is. He sees himself as a monster, a horrific hybrid, a tertium quid. This sense of doubleness, of being possessed, is one that I, a kidney recipient, have also had. (Combine my name with my transplanted organ and you've got a real identity crisis.)

A whole-body transplant is a compelling version of the ancient "Ship of Theseus" thought experiment, which asks whether a ship that has had every piece replaced is still the same ship. But instead of exploring this corporeal and philosophical problem, Haddad simply announces it and moves on. His late-night dorm-room musings are as thin as the characters he draws. A version of the following sentiment is often repeated after Cédric has his transplant: "If a body and a soul were of the same substance, what would remain of him?" This is, in the right hands, an excellent question, but Haddad leaves it hanging. Another McDeep observation, "You don't switch bodies the way you do dance partners," is followed by this piffle, "One didn't change bodies without having a fortune at one's disposal." Organ transplantation as it relates to the self and the body is exciting territory to explore, but Haddad is not the one to lead the expedition.

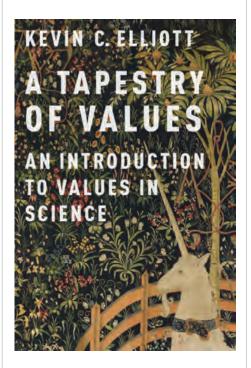
Eventually, Cédric journeys to Sicily and discovers where his body came from. He is in the land of The Odyssey, and symbols become more mythic and obvious the more he travels. He has a tattoo on "his" arm of a triskelion, a three-armed spiral that Lorna helpfully explains represents "three worlds, those of the spirits, the living, and the dead." In an utterly implausible chain of events, Cédric encounters Anantha, the lover of Alessandro, the man whose body Cédric now has. Anantha turns him into a kind of sex slave in the manner of Calypso, the nymph who imprisoned Odysseus as her lover. Avoiding looking at Cédric's head. Anantha at once mourns and is turned on by the body before her. And like Odysseus, Cédric is in exile—from his home, his body, his self. "From now on," Cédric thinks, "he was inevitably fated to be deprived of existence. Was he even alive?"

Desirable Body is a slight book that, in its shallowness, its pasteboard characters, and its inability to grapple with or demonstrate convincingly the questions it raises, disappoints. However, and fortunately for anyone interested in these themes, another French author, Maylis de Kerangel, has written Mend the Living, translated by Jessica Moore and published in English in 2016. This masterly novel re-creates the reality, not the fantasy, of a heart transplant. Rather than writing a farfetched tale that uses trite rhetorical questions to propel itself toward "meaning," de Kerangel instead did her research. In scrupulous detail and with unflinching empathy, she narrates the passage of a young surfer's heart from his body to its new home in a dying woman's chest. She finds poetry in the bureaucracy and technology of actual organ transplantation. If you want a profound meditation on the meaning and reality of organ transplantation, turn to Mend the Living.

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## Science and Society

**GRETEL FOLLINGSTAD** 



A Tapestry of Values: An Introduction to Values in Science by Kevin C. Elliott. New York, NY: Oxford University Press, 2017, 208 pp.

The Chinese scientist He Jiankui's 2018 announcement of the birth of twin girls whom he had genetically modified to be resistant to HIV stunned both the scientific community and society at large. He had used a precision gene-editing tool called CRISPR, recognized as a powerful innovation in potentially treating genetic diseases; at the same time, the technique could also be used to enhance humans or alter the human genome. In a March 2019 comment in the journal Nature, many leading scientists involved in the gene-editing field called for a global moratorium on gene editing of human embryos. They aimed to send a clear message to the scientific community that genetically modifying embryos is not acceptable until safety and efficacy issues are resolved and a broad societal consensus about the appropriateness of

the application is reached.

This is a powerful example of the role of values in scientific decisionmaking: despite citing technical concerns, researchers grounded their call for a moratorium in values such as equality, safety, and transparency. Values are an innate element of human decision-making. Although often unacknowledged, they factor into the questions scientists choose to research and the methods they use to investigate those questions. Values also influence the timing of communication, education, and dissemination of scientific knowledge to society.

Kevin C. Elliott's book *A Tapestry of* Values offers a nicely organized framework for understanding how values work in scientific practice and how values can be embraced to improve the quality of science and its utility to society. Through case studies in different areas of science, Elliott explains the role of values in science and their relevance to research. Elliott defines a value as "something that is desirable or worthy of pursuit," often characterized as ethical, political, or religious; he describes the interwoven nature of values in science as a "tapestry." The book explores appropriate ways to handle the relationship between science and society and presents five primary influences that values can have on scientific practice: the choice of research topics, the research methods employed, the research goals, the response to uncertainty, and the way the results are shared.

Elliott emphasizes two primary justifications for consciously bringing values into specific aspects of scientific practice. The first justification is that there are unavoidable instances that require scientists to make choices that will serve certain values over others. Acknowledging this allows for a transparent approach to thoughtfully and ethically taking on that responsibility. The second justification is the recognition that values can help scientists meet their goal of serving

Elliott conditions these justifications with three criteria for deciding which values should play a role in scientific