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Richard Powers's *Generosity: An Enhancement* (2009): Transhumanism, Metafiction and the Ethics of Increasing Human Happiness Levels through Biotechnology

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This paper analyzes Richard Powers's *Generosity: An Enhancement* (2009), a self-reflexive novel in which Powers explores some of the possibilities and challenges of increasing human happiness levels through biotechnology. As this work sets out to show, Powers's greatest success in the novel may be his choice to adopt certain conventions typical of metafiction to provide a fervent critique of this pressing issue. Drawing mainly from Waugh's seminal work on metafiction, the present work analyzes how the different metafictional techniques Powers uses in *Generosity* combine with the transhumanist discourse on the possibilities that biotechnology opens up in order to create a happier population. Ultimately, this article argues that through building a self-reflexive narrative the writer calls the reader's attention to the constructed character of the transhumanist view of happiness as an engineering problem. Accordingly, he presents an alternative view of happiness as a state of mind that can be achieved by being resilient in the face of our problems and by enjoying the here and now.

Keywords: Richard Powers; metafiction; transhumanism; happiness; biotechnology

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Generosity: An Enhancement (2009), de Richard Powers: Transhumanismo, metaficción y el dilema moral de incrementar la felicidad humana a través de la biotecnología

Este artículo analiza *Generosity: An Enhancement* (2009) de Richard Powers, una novela metaficcional en la que Powers explora las posibilidades y los desafíos que supone incrementar

los niveles de felicidad de los seres humanos a través de la biotecnología. Este trabajo pretende demostrar que el mayor logro de Powers en la novela podría ser la adopción de convenciones propias de la metaficción para abordar y criticar un tema tan actual. Partiendo de las ideas de Waugh sobre metaficción, este trabajo analiza cómo las diferentes técnicas metaficcionales utilizadas por Powers se entrelazan con el discurso transhumanista sobre las posibilidades que la biotecnología nos ofrece para crear una población más feliz. En última instancia, este artículo argumenta que, dotando a su narrativa de un carácter autorreflexivo, el escritor nos advierte del carácter construido de la visión transhumanista de la felicidad como un problema de ingeniería. Alternativamente, Powers presenta su propia visión de la felicidad como un estado mental que se puede alcanzar adoptando una actitud resiliente ante los problemas y disfrutando del aquí y ahora.

Palabras clave: Richard Powers; metaficción; transhumanismo; felicidad; biotecnología

1. Introduction

The possibility of putting technology at the service of enhancing our limited human capabilities and, more specifically, of increasing levels of human happiness through biotechnology is a widely discussed issue in transhumanist circles. In his contribution to the work H+/-: Transhumanism and its Critics, Nick Bostrom claims that by using science and technology transhumanism aims to "increase human health-span, extend our intellectual and physical capacities, and give us increased control over our own mental states and moods" (2011, 55; italics added). In turn, the "Transhumanist Declaration"—a document first crafted in 1998 by several thinkers—points to eliminating involuntary suffering as one of the main goals of the transhumanist movement. According to the authors of the declaration, the "alleviation of grave suffering" should be considered an "urgent priorit[y]" and therefore be "generously funded" (Bostrom et al. 2013, 54). Some transhumanist critics go one step further in claiming that it is in fact "our ethical and political responsibility" to do whatever we can to prevent citizens from being "less happy than they otherwise could be" (Hughes 2004, 223).

While transhumanists do acknowledge the role played by environmental factors in determining human happiness levels, they often regard happiness as essentially the product of the 'right' genetic coding. Thus, they believe that with the appropriate technology, predisposition to happiness could eventually be programmed into humans or, in the worst-case scenario, that cheerfulness could be technologically induced. This approach is exemplified by Canadian professor of philosophy Mark Walker who, in his work *Happy-People-Pills for All*, points to genetics as "the largest single factor in happiness variation" and metaphorically sorts the population into two different groups: "winners and losers in the genetic lottery for happiness" (2013, 164, 10). Walker argues for the need to use current and future technologies to "alter or 'compensate' those who have not won the genetic lottery" (155), and points to pre-implantation genetic diagnosis (PGD), genetic engineering and advanced pharmacology as the three most promising biotechnological developments for altering the biological basis of happiness (165).

Taking a less optimistic stance, other scholars have warned in their works against the possible adverse consequences of increasing human happiness levels through biotechnology. As such, they have generally expressed their fear that using biotechnology for enhancement purposes may bring about even greater social inequality (Fukuyama 2002 10, 16) or erode our humanity (Fukuyama 2002, 101, 173; President's Council 2003, 213; Tirosh-Samuelson 2018, 215). In addition to interest from scholars, some fiction writers have also debated the issue in their work. This is the case of American writer Richard Powers, who in his 2009 novel *Generosity: An Enhancement* (henceforth *Generosity*) takes the scientific search for the 'happiness gene' as his point of departure. In his book, he explores what could happen should happiness come to be regarded as an engineering problem and biotechnology be put at the service of helping human beings to lead happier lives—a prescient concern given the fast pace at which the biotechnology industry develops. The novel shows many of the thematic and stylistic

features recurrent in Powers's earlier work. On the one hand, in *Generosity* the author addresses topics he had explored in some of his previous fiction—such as genetic coding (*The Gold Bug Variations* 1991) and the use of psychotropic drugs (*The Echo Maker* 2006)—updating them to fit the demands of the new century. On the other hand, as in many of Powers's earlier books, *Generosity* also shows a strong metafictional component.

Some reviewers of Generosity have pointed to Powers's use of metafiction as 'unsuccessful.' According to Anthony Domestico, the constant self-referential digressions that Powers introduces in the novel downplay its moral force. Furthermore, he believes that they are a way of minimizing the risks that engaging with timeless philosophical questions—such as the meaning of happiness—entails (2009, 35-36). For his part, Bernard Kelly (2009) argues that the author's desire to intervene in his story can sometimes be "a wee bit weary," and claims that Powers (through Russell, the narrator) does not seem to realize that asking readers to "overlook the conventionality of his plot" has already become "a firmly established convention in itself." Nevertheless, as this work sets out to demonstrate, Powers's greatest success in the novel may be his choice to adopt certain conventions typical of metafiction to provide a fervent critique of a pressing issue: the biotechnological pursuit of happiness. Drawing mainly from Patricia Waugh's seminal work on metafiction, the present work analyzes how the different metafictional techniques Powers uses in Generosity combine with—and lead readers to mistrust—the transhumanist discourse on the possibilities that biotechnology opens up in order to create a happier population. Ultimately, this article argues that through building a selfreflexive narrative the writer warns about the constructed nature of the transhumanist view of happiness as an engineering problem. Accordingly, he presents an alternative view of happiness as a state of mind that can be achieved by being resilient in the face of our problems and by enjoying the here and now.

2. DE-CODING GENEROSITY'S NARRATIVE FRAGMENTATION

The above-mentioned negative reviews of Powers's use of metafiction in *Generosity* contrast with the more positive feedback offered by certain academics in their analyses of the novel. In his 2011 article "The Predisposed Agency of Genomic Fiction," Everett Hamner describes Powers's *Generosity* as a postsecular work of genomic fiction that rejects both genomic determinism and genomic dismissivism and offers instead a more balanced view of human agency, one that acknowledges "the immense impact of microbiology on identity without suggesting that selves can be reduced to cells," and which he refers to as "predisposed agency" (421). According to Hamner, Powers's choice to write a metafictional narrative is key in this respect, as it invites readers to take an active role and engage in a constant process of revision, avoiding falling into the trap of uncompromising ideological positions (438). For her part, in her work "Happiness in Distress: Richard Powers' *Generosity* and Narratives of the Biomedical Self" (2012), Karin Höpker claims that the novel uncovers a biopolitical social regime

where the management, preservation, and improvement of life and health "are part of an apparatus of biomedical 'truth discourses,' which suggest a degree of inevitability and prioritized responsibility under the dominant paradigm of biopower" (290). Höpker then argues that through building a self-reflexive narrative, Powers shows that both literature and the self are narratively constructed and subject to an ongoing "process of revision and reconfabulation" (307). The present work takes Hamner's and Höpker's contributions one step further by providing an in-depth analysis of the metafictional techniques used by Powers to put forward his views on the biotechnological pursuit of happiness. As hinted at above, the emphasis is laid on the effects of their combination with the transhumanist discourse on the pertinence of putting technology to the service of enhancing the human condition.

Powers's *Generosity* consists of two parallel narrative strands that interweave throughout the novel, giving rise to a highly fragmented narrative that seems to mirror the double helix structure of DNA-a formal arrangement of which the author had already made use, as Domestico (2009, 35) points out, in The Gold Bug Variations. One of these narrative strands follows thirty-two-year-old failed writer Russell Stone and his student Thassadit Amzwar—or "Miss Generosity," as her classmates call her (Powers 2009, 26). Thassa is a twenty-three-year-old refugee from the Algerian civil war living in Chicago who, in spite of having gone through several traumatic episodes in her life, always has a cheerful disposition. Her "enchantment," her "glee," and her "invincible grin" make Russell and the other students never want to leave the classroom: they are all "addicted to the woman's elation" (33, 48, 51, 32). In the other narrative strand, Powers introduces readers to the Boston-based genomicist Thomas Kurton and his transhumanist views on the pertinence of enhancing the human condition through technology. Readers also learn about Truecyte, Kurton's biotech company, and the groundbreaking "association studies" the company has been undertaking, which have identified specific alleles associated with an increased sense of well-being (122). The results of these studies have not been published yet, as the genomicist keeps "holding out for more data" (121). The two narrative strands converge when, upon learning about Thassa's story in the news, Kurton decides she may be "the missing datum that Truecyte's three-year study needs" (128).

Each narrative strand demonstrates certain particular narrative strategies and, as argued in the following pages, the contrast between the strategies used in each strand provides the reader with the key to understanding the novel's agenda. In the sections dealing with Thomas Kurton, a heterodiegetic omniscient narrator introduces readers to the genomicist's transhumanist ideas on the possibilities for using biotechnology for enhancement purposes. In the narrative strand that follows Russell Stone and Thassa, Powers deploys several metafictional techniques that uncover the constructed nature of the transhumanist discourse presented in Kurton's narrative strand. Among these metafictional techniques is the narrator's self-conscious foregrounding of the fictional world's artifice, direct addresses to the reader, and the introduction of two alternative endings for Thassa's story. Each of these strategies, as well as the effects of their

combination with the omniscient narration in Kurton's narrative strand, are explained in more detail in the following subsections.

2.1. Thomas Kurton's Transhumanist Discourse as a Fictional Construction

In Thomas Kurton's narrative strand, readers have access to the genomicist's transhumanist ideas through a heterodiegetic omniscient narration. One of the ways in which the omniscient narrator presents the genomicist's views is through the literary reproduction of his interventions in the *Over the Limit* show, a science talk show hosted by TV presenter Tonia Schiff. In the first extract from the "The Genie and the Genome" episode that is reproduced in the novel, and where Kurton is an invited guest, the genomicist addresses the audience and expresses his conviction that human beings should take control of nature and enhance themselves in order to achieve the posthuman stage of evolution. To use Kurton's own words: "Enhancement. Why shouldn't we make ourselves better than we are now? We're incomplete. Why leave something as fabulous as life up to chance?" (Powers 2009, 19).

Similarly, at the very beginning of part two of the novel, the heterodiegetic narrator reproduces extracts of a lecture Kurton gave at "The Future of Aging" conference at the University of Tokyo, which are also included in the "The Genie and the Genome" episode (Powers 2009, 57). Echoing the words used by Aubrey de Grey and Michael Rae (2007), two well-known advocates of transhumanism, Kurton describes ageing as "not just a disease" but "the mother of all maladies" (2009, 57). Then he expresses his belief that human beings might finally "have a shot at curing it" and even claims that putting an end to ageing could help eradicate many other illnesses, such as depression (57). In this last respect, toward the end of the "The Genie and the Genome" episode, Kurton claims to be convinced that technology will soon allow human beings to "hunt down and wipe out misery" (190) and, therefore, achieve happiness.

The self-confidence with which Thomas Kurton puts forward his transhumanist discourse contrasts with the constant self-conscious divagations of an alleged heterodiegetic narrator who eventually turns out to be Russell himself and who occasionally interrupts his narration of Russell and Thassa's story to foreground the fictionality of the diegesis. Using a typical metafictional device, the self-conscious narrator comments on the contents of the diegesis or story world as well as on its process of construction and narration (Waugh 1984, 131). Thus, early in the story this narrator intrudes upon the diegesis with an overt comment that lays bare the act of the composition of the narrative: "I give myself a first assignment: Russell Stone in one hundred and fifty words. Start with this: His earliest crime involved a book about a boy whose marvelous scribbling comes alive. [...] He hates books with teacher protagonists. [...] He dreads the question *What music do you listen to?*" (Powers 2009, 12; italics in the original). By assigning himself the task of describing Russel's character in a certain number of words, as well as by making a list of all the things he should include in his description, the narrator exposes the act of composition and, consequently, the fictional condition of the discourse.

Furthermore, on other occasions this voice explicitly acknowledges his role as the imaginative creator of the story, which further highlights the fictionality of the diegesis. Thus, there are times when he acknowledges being in control of his characters' behavior and movements: "I have her flip up her window slide and look out the plastic portal" (Powers 2009, 80; italics added). In this quotation, which refers to the character of Tonia Schiff, the narrator asserts his authorial control over the diegesis by using the first-person pronoun. Nevertheless, there are also several instances in which the narrator acknowledges not being in control of his characters' behavior or the development of his story. For example, he suggests on several occasions that he is not responsible for inventing some of the personal information relating to his characters. Referring to Thassa, the narrator states toward the beginning of the story: "She's twenty-three, it turns out, give or take an era" (26; italics added). Other times he claims to be a mere spectator of his characters' actions: "I watch him twist, the way he did so often in real life" (96; italics added), the narrator declares, referring to Russell. Ultimately, the story itself seems to be developing in ways contrary to his intentions: "I want the story to stay there, to develop this conflicted, tragically flawed character: collective wisdom. Instead, "The Genie and the Genome" squids off into a wholly unnecessary subplot concerning a healthy middle-class Chicago suburban couple who used preimplantation genetic diagnosis to keep their daughter from inheriting the colon cancer that has ravaged her father's family" (Powers 2009, 101; italics added).

Whether asserting his authorial control or claiming no responsibility for what happens to his characters or how his story develops, the narrator ultimately manages to break the reader's willing suspension of disbelief through the introduction of various references to the process of composing the text. Thus, he enhances our sense that we are reading a fictional narrative that has been crafted by an author. As Waugh argues, by laying bare the process of their construction, metafictional texts ultimately direct the reader's focus to the world outside the text, calling their attention to how the meanings and values of our own world may also have been manufactured and how, consequently, they can be challenged or changed (1984, 34). Accordingly, the narrator's self-conscious digressions sometimes direct our attention to the other narrative strand. We may start to suspect that Thomas Kurton's unwavering transhumanist narration—and, by extension, the discourse put forward by contemporary transhumanist critics—could be nothing more than a product of his imagination.

Our suspicions are confirmed toward the beginning of part three of the novel, when the narrator reveals that the genomicist often builds on "random assortment and selection" to coin his transhumanist catchphrases (Powers 2009, 137). Hence, the narrator reproduces an event in which the fictional genomicist and an anonymous Nobel Prize-winning novelist engage in a public dialogue on the promises and perils of genetic enhancement. In the brief two-paragraph section that precedes the reproduction of this event, the narrator locates Kurton flying first class from Boston to Chicago. Readers learn that, before takeoff, one of the flight attendants welcomes the passengers with the following announcement: "Good afternoon, ladies and gentlemen. Welcome to American

flight 1803 from Boston to Chicago. If Chicago is not in your travel plans today, now might be a good time to deplane" (137; italics in the original). Kurton, who is coincidentally preparing for the talk with the Nobel winner and "searching for a good hook," finds the announcement genuinely funny and quickly adapts it to meet his own needs, scribbling the following sentence in his notebook: "If the future is not your destination, now might be a good time to disembark" (137; italics in the original).

As well as commenting on the process of the construction of the story, in the sections that revolve around Russell and Thassa the narrator sometimes calls into question the truthfulness of the events described and, therefore, his own reliability as narrator. To this end, he makes use of 'denarration,' a narrative strategy which, according to Brian Richardson, appears frequently in late modern and postmodern texts (2001, 168). Drawing on literary theorist Gerald J. Prince's ideas on 'disnarration,' Richardson argues that denarration involves the narrator's denial of certain aspects of his or her own narrative, which had previously been presented as given (168-69). According to Richardson, denarration often destabilizes the ontological solidity of the diegesis and, in turn, disrupts the reliability of the narrative voice (171-73). An example of the use of denarration is found in the first pages of the novel. After leaving the subway at Roosevelt station, Russell walks to the Mesquakie College of Art, where he is about to teach his first Journal and Journey class. Along the way, he is "hit by the downtown's stagecraft." From "glass towers with their semaphores of light he's too close to read" to a skyline that "mounts up in stunning ziggurats" and "a sliver of lakefront," Russell is mesmerized by the sight, his heart pumping "at the blazing panorama" (Powers 2009, 5). Nevertheless, once Russell reaches the Mesquakie College of Art, the narrator declares, in a separate paragraph:

No, you're right: those streets don't really run that way. That neighborhood is a little off. The college isn't quite there; it's not *that* college.

This place is some other Second City. This Chicago is Chicago's in vitro daughter, genetically modified for more flexibility. (6; italics in the original)

In this quotation, the narrator metafictionally addresses the reader and denies the ontological status of the setting he has just described, explicitly calling into question his own reliability as well as that of his narrative.

Once again, the narrator's self-conscious divagations direct the reader's attention to Kurton's narrative strand. Here, we may realize that by no means does Kurton call into question the reliability of his transhumanist discourse. On the contrary, he manipulates that discourse and tries to pass it off as truth. In fact, the novel shows how, in an attempt to gain support for his cause, the genomicist sometimes over-emphasizes the role played by genetics in determining human happiness levels, even though he is aware of many other factors that contribute to it. Thus, toward the close of part three, in a three-page extract in which the narrator reproduces the recording of the final cut of the "The Genie

and the Genome" episode, Kurton announces the results of the experiments that have been performed on Thassa. The Algerian has indeed proved to have the perfect allele combination. Straightaway, on camera, the skeptic conductor of the show, Tonia Schiff, lists all the familiar criticisms that stress the important role played by the environment. Kurton dismisses all these arguments by declaring that the happiness genes "affect the way we engage the environment in the first place" (Powers 2009, 186). Nevertheless, when Schiff asks him off-camera whether possessing more of the so-called happiness alleles results in a happier life, the genomicist shows a much less self-confident attitude:

But the more of these alleles I have, the greater my joie de vivre? His face admits to complexities.

We don't even say that. We've simply noted a correlation... (185-86)

Here, the contrast between the genomicist's attitude on and off camera invites readers to question the veracity of his arguments and to adopt a more critical position.

Overall, the narrator in Russell and Thassa's narrative strand is a highly self-conscious voice who comments on the process of composing his story, at times acknowledging, at times denying, his role as the imaginative invention behind the story, and sometimes even problematizing the truthfulness of the events described. Significantly, the sections that revolve around Russell and Thassa are interspersed with other sections in which a heterodiegetic omniscient narrator reproduces the words of a genomicist (Kurton) who erases any trace of the construction and manipulation of his transhumanist discourse. The contrast between these two narrative modes may ultimately awaken readers to the constructed character of Kurton's transhumanist narrative. By extension, it may also draw our attention to the fragile grounds and even fictional basis on which contemporary transhumanist discourses about the biotechnological enhancement of the human condition stand. That is, we may realize that Kurton—and, by extension, deluded transhumanists—is putting forward an oversimplified narrative on the heritability of happiness and the appropriateness of using biotechnology to create happier human beings and trying to pass it off as truth.

2.2. Is our genetic future truly inevitable?

Powers portrays Kurton as somebody who not only randomly constructs his transhumanist catchphrases and manipulates his transhumanist discourse but also puts forward a language of hope and inevitability that mirrors the language used by some transhumanist critics in contemporary society. As the following pages aim to demonstrate, the novel ultimately denounces this language of hope and inevitability through overt narratorial addresses to the reader. In the extract above, where Kurton tells the audience of the "The Genie and the Genome" episode that he believes that someday human beings will reach the posthuman stage of evolution, he also adds that he considers nothing can be done to prevent this 'progress': "People want to live longer *and* better. When

they can do both, they will. Ethics is just going to have to catch up" (Powers 2009, 58; italics in the original). Further on, the omniscient narrator gives readers access to the genomicist's thoughts when he returns to Boston after appearing on TV again, this time on "The Oona Show" (211). Once Thassa has personally told the audience of the show that her genes are nothing special, Kurton knows he has lost the support of a sector of the population. Still, he seems confident that "public controversy can't hurt science. Nothing, really, can hurt science. All the Luddites in the country turning out with torches and pitchforks would succeed only in sending research abroad. Everything discoverable will be discovered; he'd bet his lab on that" (227-28). As happens in the story, many contemporary transhumanist thinkers present the coming transhuman era as something inevitable. Revelatory in this respect is the title of UCLA philosopher Gregory Stock's 2002 work, *Redesigning Humans: Our Inevitable Genetic Future*, in which he embraces the possibilities opened up by germline genetic engineering.

In *Generosity*, Powers denounces this discourse of hope and inevitability by means of introducing overt narratorial addresses to the reader, a technique that has been widely used by earlier metafictional writers. Most frequently, the self-conscious narrator expresses his awareness of the reader's familiarity with the story he is narrating and how it is going to develop. This is most obvious in the parts dealing with Thassa's fate once her teacher becomes interested in her psychological condition and unintentionally brings her into the spotlight. Hence, in part two of the novel, Russell, Thassa, and Candace—the college psychologist—meet by chance after one of the Journal and Journey classes. This is the first time Candace and Thassa meet. Some days earlier, in an appointment with the psychologist, Russell had expressed his concern about his student's emotional condition. Upon meeting the Algerian, Candace is bewildered at finding that she seems to be indeed ridiculously happy. Once Thassa has left, the psychologist tells Russell: "That's what we in the mental health business call peak experience. And you're saying she's like that *all the time*?" (Powers 2009, 86-87; italics in the original).

In the subsequent paragraph, the narrator recounts how Candace and Russell shake hands and part. Then, addressing the reader, the narrator states:

He knows this story. You know this story: Thassa will be taken away from him. Other interests will lay claim. His charge will become public property. He might have kept quiet and learned from her, captured her in his journal [...]. But he's doomed himself by calling in the expert. It's his own fault, for thinking that Thassa's joy must mean something, for imagining that such a plot has to go somewhere, that something has to happen. (Powers 2009, 87; italics in the original)

In this quotation, the narrator refers to Russell and his mistake to think that Thassa may be suffering from a condition, which leads him to consult the college counselor, raising the latter's interest on his student and, consequently, prompting the Algerian's unfortunate finale. By directly addressing the narratee and ultimately his readers with

the second-person pronoun "you" and pointing to their ability to anticipate Thassa's fate, the metafictional narrator conveys a sense of inevitability: once she becomes the subject of scrutiny for a genomicist who dreams of achieving eternal happiness, she is doomed. A similar example can be found later on, in part three of the novel. After having accepted Kurton's invitation to undergo some genetic tests, Thassa lands in Boston. At this point, the narrator declares: "You know the story in Boston. You know what the lab will have to discover" (148). This is yet another instance of the narrator directly addressing his readers and referring to their ability to guess Thassa's fate once she has fallen in the grips of the transhumanists.

In both examples, the narrator, who could be narrating the story in retrospect, shows himself powerless: the transhumanist drive to find the secret of happiness is so strong that, once Kurton has set out to demonstrate that Thassa possesses the happiness gene, there remains little to be done. The narrator's intention with this narrative choice is not to invite his readers to adopt an attitude of resignation. On the contrary, he wants us to realize that, just like Thassa's fate has been dictated by the transhumanists in the story—rather than by his own narratorial choices—human beings run the risk of being dragged into the future of an unrestrained (bio)technological growth that a few optimistic or opportunistic transhumanist thinkers have long been wishing for. To this purpose, he directly interpellates us, inviting us to regard the transhumanist narrative of allegedly unhindered and inevitable technological progress as a construction that needs to be questioned. In a similar vein, some critics have denounced the technological determinism that seems to prevail in transhumanist circles. Thus, Francis Fukuyama has claimed that being pessimistic about the inescapability of technological progress is pointless, and that this technological determinism could eventually turn into "a selffulfilling prophecy if believed by too many people" (2002, 188).

2.3. Powers's Alternative View of Happiness

In her seminal work, Waugh points out that metafictional novels may end with a choice of endings. Alternatively, this kind of novel may even end with a discussion of "the impossibility of endings," or with a commentary on the standard fictional end, the happy ending (1984, 29). Regarding those novels that present the reader with two or more alternative endings, Waugh states that they often make use of contradiction. Thus, they provide readers with alternative stories that happen neither "simultaneously (because they can only be substitutions for each other)" nor "in sequence (because they cannot be combined according to normal logic: they erase or cancel out each other)" (138; italics in the original). Ultimately, this kind of fiction leaves readers with no final certainty. In Generosity, Powers provides his readers with two alternative, mutually exclusive endings for Thassa's story. The two endings appear, one after another, in part five of the novel. The first ending takes place sometime after Thassa signs away her ovarian cells for thirty-two thousand dollars. In a phone call with Russell, Thassa claims to be overwhelmed by all the negative criticism she has received for her decision and

asks him to drive her to Canada, where her uncle and aunt live. Russell accedes and the two characters make their way north. Nevertheless, they are stopped at the border and Russell is told he needs a passport to get back into the U.S. Since he does not have his passport with him and nobody in Montreal can come to pick Thassa up until the next morning, the two characters see themselves forced to spend the night at a nearby motel.

At some point, Russell borrows Thassa's phone and steps outside the room to call Candace, who tells him that the two of them are "all over the news" and that he is being accused of kidnapping his student (Powers 2009, 286). Candace also informs Russell that the police have launched a manhunt for him and Thassa, which Headline News has labeled "The Pursuit of Happiness" (289). When Russell returns to the room, "the TV is blaring" and Thassa "asleep, curled up on her bed" (287). It does not take long until Russell finds out that his student has taken all the medicines in his Dopp kit. Russell soon concludes that she must have watched the news headlines. While waiting for the emergency services to come, he tries "to keep her as alert as possible." At some point, "briefly, her muscles take on a little tension" (289). When the helicopter comes, Thassa is strapped into a mobile sling bed, "her eyes open," readers learn, her gaze swimming "at random through the atmosphere, before snagging on Stone" (290). Strategically, the narrator's inconsistent narration of the events that take place at the motel room—one moment Thassa is not breathing anymore, the next moment she does show signs of being alive—ultimately leaves readers unsure of whether the main character is alive or dead. The narrator never says whether the doctors are able to save Thassa's life either.

Told immediately after the first one, the second ending takes up the last seven pages of the novel to help Powers enhance his warning message about the transhumanist run for biotechnological bliss. Thus, he makes readers find there that two years after the release of the "The Genie and the Genome" episode, Tonia Schiff meets with Thassa in a café of "a town just over the Tunisian border" (Powers 2009, 247). Therefore, they may guess that Thassa has survived her suicide attempt and has moved back to her home country. Schiff, on her part, has set out to film a documentary about "the coming age of molecular control." The documentary, entitled "The Child of Choice" (292), represents Schiff's last attempt at raising awareness among the population of the need to halt and reverse technological progress in the field of genetic engineering. In this meeting, Schiff shows Thassa some images of "a brown infant girl" who has been born out of the Algerian's genetic material. The images, which also feature Thomas Kurton, are to be included in the "The Child of Choice" episode (293).

While watching the images of the little girl squealing "in ecstasy" and breaking out "into gales of untouchable laughter," Powers makes Thassa show contradictory feelings: "Anxiety. Bliss. Other related strains" (Powers 2009, 293). Then, she gives Schiff permission to include her in her documentary, hoping her story will help to influence an audience too confident about the inheritability of happiness: "Make your film. Tell everything. Tell them my genes had no cure that this place couldn't break" (294). This last remark, together with the fact that Thassa tells Schiff that she cannot be filmed

anymore—apparently, not because she refuses to be on TV but because she is dead, so it is ultimately impossible—are hints that may lead readers to suspect that this second ending could be just a creative rewriting of the first one. The fact that the narrator then explicitly refers to Thassa as "the apparition," and that Schiff's camera, the menus, the tea, and "the filmmaker herself" eventually start to vanish as the novel comes to a close are also hints that may lead readers to lean towards this interpretation (295).

Even more enlightening in this respect is the narrator's revelation, in this alternative ending, of his true identity. At some point during Schiff and Thassa's meeting at the café in the Maghreb, Schiff hands an imaginary Thassa her beaten-up copy of the book *Make Your Writing Come Alive*, which Russell and his students had been using in the Journal and Journey classes. Nevertheless, Thassa refuses to keep it: "It's not mine,' she says. 'Give it to Russell. He will need this." Straight away, using the first person, the so-far unknown extradiegetic narrator addresses his character and declares: "I will need much more. Endless, what I'll need. But I'll take what I'm given, and go from there" (Powers 2009, 295). By providing an answer from his extradiegetic position to his character's remark using the first-person pronoun "I," the narrator finally reveals his identity and discovers his participation as a character in the story he has narrated. Suddenly, things start to fade. Metaleptically, Russell has crossed narrative levels and it is he rather than Schiff who is now in the Maghreb, sitting across Thassa, contemplating the sunset with her:

And I'm here again, across from the daughter of happiness, as I never will be again, in anything but story. The two of us sit sampling the afternoon's slow changes, this sun under which there can be nothing new. She's still alive, my invented friend, just as I conceived her, still uncrushed by the collective need for happier endings. All writing is rewriting. (295)

As the preceding quotation proves, it is only in his imagination—and in his writing—that Russell can bring a dead Thassa back to life. Once he has prompted his student's unfortunate end by bringing her into the spotlight, the only thing he can do is to try to rewrite the story to pay homage to her and redeem himself from his guilt. At this point, readers may be led to close the circle and realize that the novel they have been reading could represent Russell's attempt at getting rid of his shame after Thassa's death. This would also help to explain, in turn, why he initially decided to conceal his identity and hide himself behind an alleged heterodiegetic narrator. Suspicions are confirmed in the concluding paragraph, when Russell expresses his willingness to let his story develop freely: "And I am, for once, ready to try on anything the story might permit. What else can I do for her, except defy my type?" (Powers 2009, 295). This quotation ultimately evidences Russell's willingness to resist any totalitarian narrativizing impulse and write instead a story that, unlike the unwavering transhumanist narrative, is self-reflexive and non-totalizing.

Thus, as is typical of metafiction, in *Generosity* Powers presents his readers with a choice of endings but gives them no hints of which one is the "real" one within the

diegesis. In any case, as some critics have suggested in their analysis of the novel, it seems to be clear that Thassa's story tragically ends with her suicide at the motel room and that the second ending is just the narrator's posthumous and more optimistic rewriting of Thassa's fortune (Ickstadt 2012; Schaefer 2012; and Piep 2019). This narrative choice is not without implications, as it becomes the means by which Powers puts forward his own view of happiness—that contrasts greatly with the transhumanist view of happiness as a product of the right genetic coding. By depicting a character who in spite of being genetically predisposed to experiencing happiness eventually takes her own life because of the pressure to which she has been exposed, Powers conveys the idea that happiness is not only the result of having the right genetic coding—and, therefore, something that can be genetically engineered.

The character of Thassa adds more clues that support this reading of the writer's implications on human happiness. As noted earlier, in spite of having gone through several traumatic situations in her childhood, Thassa is able to show a cheerful disposition. This is largely because the writer draws her as a highly resilient person. The American Psychological Association (APA) defines resilience as the "process of adapting well in the face of adversity, trauma, tragedy, threats or significant sources of stress—such as family and relationship problems, serious health problems, or workplace and financial stressors" (2020). Then, they provide advice on how human beings may best adapt to life-changing situations. Thus, building connections with other people, fostering our physical and spiritual wellness, finding purpose (both by helping others and knowing how to deal with our problems and achieve our goals) and embracing healthy thoughts are all strategies that, according to the APA, may empower human beings "to withstand and learn from difficult and traumatic experiences."

When reading Powers's novel, Thassa's resilient attitude becomes apparent: she is depicted as somebody who cares for the others, always thinks positive, and finds pleasure in the smallest things in life. With the people she knows—especially Russell, Candace, and her Journal and Journey classmates—she builds strong relationships and shows kindness and understanding. For those she does not know, she always has a kind word. Furthermore, Thassa always thinks positive. This becomes most evident when, after the second Journal and Journey class, Russell asks his students to write an essay on the topic "[c]onvince someone that they wouldn't want to grow up in your hometown" (27). In her essay, which she emails to Russell and which is summarized by the narrator in part one of the novel, Thassa recounts the death of her father during the Algerian Civil War and that of her mother shortly afterwards. Nevertheless, she concludes the work on a positive note, praising the beauty of her home country: "But still, she writes, it is so beautiful there. I wish you could see it, up close, from the harbor. It would fill your heart. So crazy with life, chez nous" (30; italics in the original). Finally, Thassa is also able to enjoy the small things in life. This clearly shows when she and Kurton meet at the Shedd Aquarium in Chicago. As they are waiting to buy the tickets, the Algerian confesses going there almost once a week

and never getting tired of it, which makes Kurton get goose bumps on the back of his neck. As the narrator states, focalizing through Kurton: "The simplest pleasure—watching fish glide by on the other side of murky-green glass—never goes stale and needs no escalation. She's jumped off the hedonic treadmill and *doesn't habituate*" (Powers 2009, 144; italics in the original).

3. CONCLUSION

In view of both the fast pace at which the biotechnology industry develops and increasing transhumanist efforts at convincing the population of the need to put technology to the service of enhancing the human condition, the need to reflect on where we want our technologies to take us is now more evident than ever. With his 2009 novel *Generosity:* An Enhancement, Richard Powers has shown that metafiction can still be a suitable tool to explore some of the ethical and philosophical dilemmas that human beings face in the twenty-first century, in particular those that surround the idea of turning to technology to achieve eternal contentment. Regrettably, contemporary advocates of transhumanism often overlook these aspects. As this work has set out to demonstrate, by deploying different metafictional techniques Powers leads readers to mistrust the transhumanist totalizing narrative on the biotechnological pursuit of happiness and to adopt a more critical position.

More specifically, in the sections that deal with Russell and Thassa, the writer introduces the self-conscious divagations of a narrator who exposes the artifice of his story world, questions his own reliability and, thus, that of his narrative. This ultimately directs our attention to the constructed character of Kurton's narrative on the inheritability of happiness and the appropriateness of putting biotechnology to the service of increasing human happiness levels. Furthermore, the narrator of Generosity sometimes addresses readers directly and reveals the transhumanist discourse of inevitable technological progress to be nothing but a construction that can ultimately be challenged and even changed. Lastly, Powers introduces two alternative endings for Thassa's story. Even though these endings are mutually exclusive, both of them point to the fact that Thassa eventually takes her own life because of the pressure to which she has been exposed. With this narrative choice, the writer dismantles the transhumanist discourse on the genetic basis of happiness and puts forward instead an alternative view of happiness as a state of mind human beings need to strive to achieve. The character of Thassa, with her resilience in the face of adversity and her ability to appreciate the here and now, ultimately shows us the way to happiness.¹

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