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Future Asians:

Orientalism and Posthumanism in Twenty-First Century U.S. Science Fiction

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Philosophy

in English

by

Claire Miye Stanford

2022

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2022

ABSTRACT OF THE DISSERTATION

Future Asians:

Orientalism and Posthumanism in Twenty-First Century U.S. Science Fiction

by

Claire Miye Stanford

Doctor of Philosophy in English

University of California, Los Angeles, 2022

Professor Ursula K. Heise, Chair

In *Future Asians: Orientalism and Posthumanism in Twenty-First Century U.S. Science Fiction*, I investigate the representation of Asians and Asian Americans in contemporary American science fiction. There is broad scholarly consensus that American science fiction of the early to mid-twentieth century responded to fears over immigration and overpopulation with overtly racist portrayals of Asian characters. I argue that science fiction of the early twenty-first century responds to global economic and technological conflict with a more subtle – but nonetheless racially coded – portrayal of Asian bodies as no longer entirely human. By examining these iterations of Asian posthumanism, my project contends with American science fiction's persistent Orientalist discourse; ultimately, I assert that this seemingly fantastical genre reveals pressing U.S. anxieties about rising Asia and its competitive impact on both global trade and technological innovation.

Working at the intersection of science fiction studies, Asian American studies, and critical race studies, *Future Asians* aims to illuminate larger questions of race and futurity. Specifically, my dissertation examines the notion of the technological and biotechnological posthuman, which I define as mechanical imitations of the human (robots, artificial intelligence) and forms of the human that still rely on incorporating normal biological functioning of the human (clones, cyborgs). While these posthuman forms are often considered non-raced entities, I argue that science-fictional portrayals of the posthuman are not non-raced at all, but rather directly contend with contemporary racial biases and injustices. By examining three major tropes of Asian posthuman representation – the virtual avatar, the non-singular self, and the android – *Future Asians* investigates how contemporary U.S. science fiction employs the image of the posthuman either to reinscribe negative racial histories and stereotypes or to counter these histories. As the posthuman becomes a widespread theoretical concept across the humanities and social sciences, my study poses a critical intervention, contributing to a more nuanced understanding of the posthuman that applies across the subfields of Latinx futurism, Afrofuturism and Africanfuturism, and Indigenous futurism.

The first chapter, "*Ready Player One* and the Reassertion of United States Economic & Technological Supremacy" interrogates the posthuman trope of the virtual avatar. I argue that, by reducing the novel's Japanese characters to pre-modern Japanese tropes via their choice of samurai as their avatars, Ernest Cline portrays Japan as an economic and technological threat that has been contained, thus modeling a future in which American individualism wins out over Asian collectivism and reasserting U.S. supremacy.

The second chapter, "Genre and the Generic Human in *How to Live Safely in a Science Fictional Universe*," examines the posthuman trope of the non-singular self, represented in the

novel through the science-fictional concept of the time-travel double. I argue that it is the very act of giving up the commitment to the Western notion of the individual self – through interacting with his time-travel double – that allows the protagonist to break free of the model minority myth and the pressures of assimilation for Asian immigrants to the U.S. Additionally, I argue that the novel's generic ambiguity challenges both the tropes of science fiction and the tropes of the immigrant narrative, formally underlining the novel's argument against assimilation by refusing to assimilate to either genre.

The third chapter, "'In the future, no one is completely human': Posthuman Poetics in Sun Yung Shin's *Unbearable Splendor* and Franny Choi's *Soft Science*" looks at the posthuman trope of the android in two recent poetry collections. I argue that Shin and Choi subvert the tropes of the Asian posthuman through linguistic play, ultimately demonstrating a flexible notion of selfhood that not only transcends racial boundaries but also species boundaries and boundaries between the human and the mechanical.

Finally, three interspersed interludes – *Nuclear*, *Crispr*, and *Sex* – consider contemporary – rather than science-fictional – technologies. In looking at nuclear technology, gene-editing technology, and sex doll/sex robot technology, I demonstrate that the posthuman is not purely a science-fictional concept, but rather is already ingrained in these contemporary technologies' relationship to the Asian body. By drawing on archival material, cultural criticism, and personal reflection, each of the three interludes grounding this project's concerns with the posthuman in the present – showing how the posthuman is not only relevant to our shared future, but to our current moment.

The dissertation of Claire Miye Stanford is approved.

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2022

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VITA

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"Nuclear." *The American Scholar*. Forthcoming.

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Introduction: On the "liberatory potential" of posthumanism

In her now-seminal book, *How We Became Posthuman* (1999), N. Katherine Hayles writes that posthuman disembodiment posits a path to liberation for everyone who is not the typical "(white male) liberal human subject," noting feminist, postcolonial, and Marxist readings of posthumanism that argue for the "liberatory potential of a dispersed subjectivity" (4). Posthumanism, then, is not the end of humanity, but the end of "a certain conception of the human, a conception that may have applied, at best, to that fraction of humanity who had the wealth, power, and leisure to conceptualize themselves as autonomous beings" – in other words, the cis, white, able-bodied, heterosexual male who has been traditionally synonymous with the conception of the human forwarded by Western liberal humanism (286).

When I first encountered *How We Became Posthuman*, nearly twenty years after its publication, it struck me, almost immediately, as overly optimistic about the potential of the posthuman. I was reading, at the same time, two novels: Paolo Bacigalupi's *The Windup Girl* (2009) and Kim Stanley Robinson's *2312* (2012). Both novels feature posthuman Asian women as their co-protagonists: in *2312*, Swan Er Hong is an ethnically Chinese "spacer" living on the planet Mercury; in *The Windup Girl*, Emiko is a windup – a genetically-engineered New Person – who is Japanese in appearance and also in her cultural training. But while both narratives offer some glimmer of the liberatory potential of posthumanism, the novels' posthuman aspects only perpetuated an Orientalist vision of Swan and Emiko, forwarding the Asian female body as a primary site of genetic experimentation, rather than freeing them from the domination of Western, white patriarchy. Swan – as a representative of China – is portrayed as recklessly experimental, pursuing posthuman body modifications that the novel's other characters consider

too extreme; Emiko – as a representative of Japan – is portrayed as overly docile, unable to overcome her genetically-programmed fealty to white, American men, first Anderson Lake and, at the novel's end, Gibbons. Swan and Emiko – two Asian posthumans – did not seem like characters who had been liberated by posthumanism.

As I worked through *How We Became Posthuman*, this disjunction continued to bother me. It had, perhaps, first come to my attention because, as a half-Japanese woman, I am particularly aware of the portrayal of Asian women. But even in the science-fictional works that Hayles herself cites as key texts in posthumanism, the liberatory potential of posthumanism only applies to certain humans. In *Neuromancer* (1984), it is the white American male Case who is able to experience the freeing disembodiment of cyberspace; his female accomplice, Molly, takes on the physical, real-world part of their mission, while the Rastafarian Maelcum watches over Case's physical body and resuscitates him when he flatlines while he is "jacked in" (103). Again and again, I encountered science-fictional visions of posthumanism that, far from reconceptualizing the Western liberal humanist conception of the human, instead portrayed a future in which posthumanism only perpetuates and further accentuates the social injustices of our present moment.

In the more than twenty years since the publication of *How We Became Posthuman*, the concept of posthumanism – while gaining great traction in academia – has remained contested territory. Definitions of the posthuman abound, from Jane Bennett's "vital materialism" to Bruno Latour's actor-network theory to Cary Wolfe's focus on the non-human animal to Donna Haraway's cyborg manifesto. And yet, even as the posthuman becomes a widespread theoretical concept across the humanities and the social sciences, very few scholars have considered the

intersection of the posthuman and race. Instead, the posthuman is often treated as a non-raced entity, or, if race is considered at all, it is included as a sidenote.

In this dissertation, I offer an intervention into the supposed race neutrality of the posthuman, arguing that science-fictional portrayals of the posthuman are not non-raced at all, but rather directly contend with contemporary racial biases and injustices. I focus my inquiry on representations of Asians and Asian Americans in twenty-first century U.S. science fiction. There is broad scholarly consensus that American science fiction of the early to mid-twentieth century responded to fears over immigration and overpopulation with overtly racist portrayals of Asian characters. I argue that science fiction of the early twenty-first century responds to global economic and technological conflict with a more subtle – but nonetheless racially coded – portrayal of Asian bodies as no longer entirely human. By examining these iterations of Asian posthumanism, my project contends with American science fiction's persistent Orientalist discourse; ultimately, I assert that this seemingly fantastical genre reveals pressing U.S. anxieties about rising Asia and its competitive impact on both global trade and technological innovation.

Working at the intersection of science fiction studies, Asian American literature, and posthumanism, *Future Asians* aims to illuminate larger questions of race and futurity. Specifically, I examine the notion of the technological and biotechnological posthuman, which I define as mechanical imitations of the human (robots, artificial intelligence) and forms of the human that still rely on incorporating normal biological functioning of the human (clones, cyborgs). By examining three major tropes of Asian posthuman representation – the virtual avatar, the non-singular self, and the cyborg/android – *Future Asians* investigates how contemporary U.S. science fiction employs the image of the posthuman either to reinscribe negative racial histories and stereotypes or to counter these histories. As the posthuman has been

explored as a theoretical concept across the humanities and social sciences, my study poses a critical intervention, contributing to a more nuanced understanding of the posthuman that applies across the subfields of Latinx futurism, Afrofuturism and Africanfuturism, and Indigenous futurism.

Guiding lights for my own research include the scholars Lisa Nakamura and Alexander G. Weheliye, who have both made early interventions into posthumanism's race-blindness. Nakamura's scholarship on the representation of race in digital media posed a pioneering intervention into the presiding ethos of techno-optimism; in both *Cybertypes: Race, Ethnicity, and Identity on the Internet* (2002) and *Digitizing Race: Visual Cultures of the Internet* (2008), she contests the notion that the internet is a non-raced space – one with the liberatory potential to assume whatever identity a person might want to assume – making legible the deeply-ingrained racial biases in the textual and visual culture, looking at everything from AIM buddies to avatars.

In 2002, Weheliye published a cogent analysis of Hayles in *Social Text*, critiquing posthumanism's disinclination to engage in questions of racial formation. As he explains, he wrote this critique because Hayles's formulations of the posthuman were on their way to becoming "hegemonic," cementing an erasure of race in discussions of the posthuman (21). In *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human* (2014), Weheliye expands his argument that many theories of posthumanism "reinscribe the humanist subject (Man) as the personification of the human by insisting that this is the category to be overcome, rarely considering cultural and political formations outside the world of Man that might offer alternative versions of humanity" (9-10). Moving beyond critique of posthuman theories including Giorgio Agamben's bare life and Michel Foucault's biopolitics, Weheliye engages with a constructive project of considering what Black studies, and,

specifically Black feminist scholars such as Hortense Spillers and Sylvia Wynter, offer to the project of reconceptualizing the human.

If science fiction helps us to see potential futures, then we are in need of imaginaries that don't just perpetuate contemporary injustices, but counter them and offer alternative ways of being. As a scholar, I aim not only to make legible the geopolitical and racialized subtext of an overwhelming amount of contemporary U.S. science fiction, but also to illuminate the voices at the edges of the genre who are contesting these stereotyped, simplistic portrayals of the posthuman and offering visions of more equitable futures.

Contesting the Boundaries of Science Fiction and Posthumanism

My project interrogates two concepts – science fiction studies and posthumanism – that are each somewhat murky, their terminology and definitions contested. I approach the contested boundaries of these concepts not as a limiting factor but as an opportunity to consider texts that both fall clearly within their parameters and texts that put further pressure on these already troubled categories. I deliberately frame my project within these contested categories with the goal of staking out a place for both Asian American literature and, by extension, literatures by other marginalized authors in these categories that too often elide race entirely.

Science Fiction, Speculative Fiction, and Race

The theoretical framework of this project rests on the argument that science fiction is not, in fact, about the future but about the present. Multiple critics have made this claim in foundational works about the genre. In *Metamorphoses of Science Fiction*, Darko Suvin argues that science fiction results in "cognitive estrangement," in which readers are estranged from their

assumptions about present-day reality and therefore forced to interrogate those assumptions (4); similarly, in *Archaeologies of the Future*, Fredric Jameson explains that the purpose of science fiction is to "defamiliarize and restructure our experience of our own *present*" (286). John Rieder extends this argument to specifically look at the ways a history of colonialism inflects contemporary science-fictional texts with racial ideologies. In *Colonialism and the Emergence of Science Fiction*, he argues that science fiction began as a representation of colonial and imperial power, replicating the ambivalence toward the cultural "other" found in colonial accounts; therefore, he contends, "some of the racism endemic to colonialist discourse is woven into the texture of science fiction" (97). These critical works provide the necessary framework for reading science fiction as commenting on present-day societal issues, and, specifically, issues of race.

What is science fiction? Both scholars and writers of science fiction widely recognize the difficulties of defining the genre; in *Critical Terms for Science Fiction: A Glossary and Guide to Scholarship*, Gary K. Wolfe includes 33 different definitions. Suvin defines science fiction as

> a fictional tale determined by the hegemonic literary device of a *locus* and/or *dramatis personae* that (1) are *radically or at least significantly different from the empirical times, places and characters* of 'mimetic' or 'naturalist' fiction, but (2) are nonetheless…simultaneously perceived as *not impossible* within the cognitive (cosmological and anthropological) norms of the author's epoch. (viii)

The second statement here is what distinguishes Suvin's definition from others; Suvin places a heavy emphasis on the need, in science fictional works, for a "totalizing ('scientific') rigor" that explains the world of the novel in cognitive – by which Suvin means self-aware and critical – terms (374). In a complete contrast, Margaret Atwood – who has steadfastly denied that her

books are science fiction – defines science fiction as "things that could not possibly happen"; she argues that, because the events of her books could happen and just have not happened yet, they belong instead to the also highly-debated category of "speculative fiction" (6).[1] While Atwood and Suvin's definitions are diametrically opposed, they both rest on the tenuous notion of possibility/impossibility. This reliance on the notion of possibility/impossibility is a key weakness in both definitions because it requires a subjective interpretation of what is possible or impossible.

A more useful way to discuss the definition of science fiction is found in the work of Paul Kincaid. In his article, "On the Origins of Genre," Kincaid argues that there is no one definition of science fiction, nor is there one urtext; it is impossible, he contends, to mark the beginning of the genre. Instead of the limitations imposed by the attempt to codify science fiction with a single definition, Kincaid proposes a much more porous notion of science fiction – and of genre as a whole – as a group of texts that bear a "family resemblance" to each other. According to Kincaid, "Family resemblances are more flexible, since they allow us to keep pace with every change in the genre. A radical new work that takes science fiction in an unexpected direction would not require a redefinition; all that is required is that it bear a family resemblance to another work that we commonly agree is science fiction" (414). Kincaid's solution is still subjective, in that someone must still decide what is *enough* of a family resemblance – and, in the first place, which traits constitute a family – and Kincaid recognizes that individual texts may lead to differing classifications. But importantly, this solution attends, as Kincaid notes, to the texts in the "borderland" of science fiction: "It is not in the heartland of science fiction that

[1] Suvin is as dismissive of speculative fiction as Atwood is of science fiction, viewing it as a direct, anti-scientific response to more clearly science-focused SF. Suvin argues that because speculative fiction is an explicit response to science fiction, it is actually part of the same genre. He writes: "The so-called speculative fiction (for example, Ballard's) clearly began as and has mostly remained an ideological inversion of 'hard' SF" (67).

definitions, or family resemblances, are an issue, but on the borders, where science fiction is changing into something else, or something else is changing into science fiction" (415). Kincaid's vision of science fiction thus allows the genre to incorporate works on the borders – the kind of works that are being written by the Asian American authors under discussion in this project. This more inclusive vision of science fiction also helps us to move past pedantic discussions of whether a text is or isn't science fiction and onto more complex questions of how different texts can expand the genre.

While I critique Suvin's definition of the science fiction genre, I consider his notion of the "novum" a useful concept for describing the family resemblances of SF as a whole and the specific texts under consideration in this dissertation. According to Suvin, "a novum or a cognitive innovation is a totalizing phenomenon or relationship deviating from the author's and implied reader's norm of reality" (64). By "totalizing," Suvin means that the innovation of the novum underpins the entire story; it is crucial to the plot. Suvin again uses the descriptor "cognitive," requiring that the imaginary innovation still follow "accepted scientific, that is, cognitive, logic" (66). As I am interested in this dissertation in exploring the representations of Asians in the specific genre of science fiction, I have chosen texts that each feature a novum (and, in some cases, multiple nova): the complex and immersive virtual world of *Ready Player One*; the time travel of *How to Live Safely in a Science Fictional Universe*; and the cyborgs and androids in both *Soft Science* and *Unbearable Splendor*.

I have chosen to engage with the term "science fiction" rather than "speculative fiction" for a number of reasons. First, there is the problem of definition, which I've already alluded to in my discussion of Atwood and Suvin; for all the murkiness around science fiction's definition, the definition of speculative fiction is even less concrete. Some critics use it as an umbrella term that

includes science fiction and also subgenres such as magical realism, fantasy, and horror. Others use it in lieu of science fiction, often to signify perceived greater literary merit; authors sometimes align themselves with speculative fiction – rather than science fiction – in order to avoid being pigeonholed in a genre that, until recently, lacked literary prestige.

But beyond the problem of definition, I have chosen to frame this project in terms of science fiction because I aim to directly engage with both scholarly and popular debates about the borders of the genre, and especially how writers of color and female writers expand those boundaries. Using the term speculative fiction sidesteps these questions, and raises the question: Does using the term "speculative fiction" to describe works that bear a family resemblance to science fiction, but that are written by women or people of color, allow for a new literary space, unburdened by the colonial history of science fiction? Or does it actually reify a closed, exclusive understanding of what constitutes science fiction and who can write it? Or both? For just one example of the argument for using "speculative fiction," Aimee Bahng explains that she employs the term "speculative fiction" in her book, *Migrant Future: Decolonizing Speculation in Financial Times*, because it is more "capacious" and "expansive"; she adds that Suvin's definition of science fiction has always sought to "nail down, pinpoint, and close off the boundaries of a genre" (13). While I agree that the term speculative fiction is more expansive than science fiction, in *Future Asians*, I take a different tack, directly engaging with these perceived limitations and insisting on a place for supposedly borderline work – too often by people of color or women – in the genre.

Expanding the boundaries of science fiction can be a frustrating pursuit, but it is a necessary one, and one in which I am not alone as a scholar. The work of Isiah Lavender III has been key to challenging the hegemonic whiteness of science fiction. *Race in American Science*

Fiction (2011) examines the way race appears and is silenced in science fiction, arguing that racial alterity is key to SF's narrative strategy; *Afrofuturism Rising: The Literary Prehistory of. Movement* (2019) offers a trans-historical reading of texts by authors including Frederick Douglass, Zora Neale Hurston, and Richard Wright, arguing that the Black experience in the U.S. has always included elements of spatial and temporal dislocation similar to science fiction. In addition to these monographs, Lavender has edited three anthologies that do important work in making legible the complexities of race in science fiction: *Black and Brown Planets: The Politics of Race in Science Fiction* (2014), *Dis-Orienting Planets: Racial Representations of Asia in Science Fiction* (2017), and *Literary Afrofuturism in the Twenty-First Century* (2020, coedited with LisaYaszek).

Along with Lavender, several other scholars are also challenging the borders of science fiction and helping to expand them to create a more inclusive vision of the future. Grace L. Dillon coined the term Indigenous Futurisms, which incorporates Indigenous knowledge and tradition into representations of the future; the anthology she edited, *Walking the Clouds: An Anthology of Indigenous Science Fiction* (2012), was the first published anthology of Indigenous SF, which offers valuable perspectives on decolonized futures, environmental justice, and human-nonhuman relationships. Lavender, Dillon, Bodhisattva Chattopadhyay, and Taryne Jade Taylor are also editing the forthcoming *Routledge Handbook of CoFuturisms*, which will include an adaptation of the third chapter of this dissertation.

Additionally, Bahng's *Migrant Futures: Decolonizing Speculation in Financial Times* (2018) and Mark C. Jerng's *Racial Worldmaking: The Power of Popular Fiction* (2018) offer broader conceptions of theorizing race and science fiction. Bahng explores the connection between speculative fiction and speculative finance, focusing on transnational authors and texts

that offer counternarratives to "the predatory speculations of global capitalism" (8). By tracing questions of finance and migration across Afrofuturist, Chican@futurist, and Asian futurist texts, Bahng elucidates the shared concerns among these subgenres of scholarship and production. Jerng's *Racial Worldmaking* draws connections between Afrofuturism and Asian futurism, making a more general contribution to critical race theory, with science fiction texts as case studies. Jerng intervenes in critical race theory's emphasis on the "visual epistemology" of race, arguing that race is constructed through much more than simply "biological or cultural visibility of bodily difference" (2, 19). Instead, Jerng offers the term "racial worldmaking" to describe the narrative mechanisms that construct race even in the absence of physical determinants (for example, in the movie *Avatar*, in which the Na'vi are blue, nonhuman beings) (1, 4).

Most recently, Joy Sanchez-Taylor's *Diverse Futures: Science Fiction and Writers of Color* (2021) looks at late twentieth and twenty-first century science fiction by writers of color in the United States and Canada. Sanchez-Taylor explores the way authors such as Octavia E. Butler, Ted Chiang, Sabrina Vourvoulias, and others engage with science fictional tropes such as first contact, genetic modification, and post-apocalypse, juxtaposing generic conventions with non-Western cultural references to illuminate the lack of inclusiveness in Western science fiction and to foster a more inclusive vision of the future.[2]

Posthumanism

The term posthumanism encompasses a number of meanings, from techno-posthumanisms that perpetuate Enlightenment ideals (humans controlling nature, the body) to animal rights discourse that decenters the human and argues for the agency and consciousness of

[2] Sanchez-Taylor uses the term "Eurowestern," not "Western."

nonhuman species. What all of these visions of posthumanism have in common is the decentering of the human, contesting the West's prevailing anthropocentricity. They differ not only in their manifestations of posthumanism, but also – more crucially for my project – in their baseline assumptions about both the political goals of posthumanism and in their assumptions about how to define the human, and the recognition or elision of the fact that people of color, women, non-Western populations, and other marginalized peoples are often excluded from full humanity.

As I mentioned at the beginning of this introduction, my project began, in part, as a response to Hayles's *How We Became Posthuman* (1999), which notes posthumanism's possibilities for liberation for non-white bodies but largely avoids engaging with this claim. In Hayles's conception of posthumanism, the term is characterized by four key assumptions: first, the privileging of informational pattern over materiality; second, the reframing of consciousness as an epiphenomenon, rather than the "seat of human identity"; third, viewing the body as "the original prosthesis"; and fourth, the configuring of the human so that "it can be seamlessly articulated with intelligent machines" (2-3). As Hayles explains, she means for the title – *How We Became Posthuman* – to "connote multiple ironies" (6); she is not advocating, per se, for the vision of posthumanism she presents. Rather she is aiming to intervene at a "critical juncture" in the development of posthumanism, "to keep disembodiment from being rewritten, once again, into prevailing concepts of subjectivity" (5). Ultimately, Hayles is truly advocating for the materiality of information and the importance of embodied knowledge.

But even as Hayles nods toward the racial implications of posthumanism, the majority of the analysis demonstrates little to no engagement with questions of race, an omission that is especially glaring considering her ultimate argument about the necessity of physicality and

embodiment. In 2002, Weheliye published a thorough and convincing critique of *How We Became Posthuman*; as Weheliye argues, even as Hayles suggests that posthumanism can offer a liberation from the constriction of the Western liberal humanist conception of the human, her analysis and argument actually reinscribe the Western conception of humanity, using it as a "heuristic category against which to position her theory of posthumanism" (23). In other words, Hayles takes the Western liberal conception of the human – one that privileges the cishet, able-bodied white male as the ultimate vision of the human – as a given, rather than contesting this deeply flawed understanding of humanity. As I mentioned at the beginning of this introduction, what originally piqued my interest – and discontent – with Hayles's analysis was its near-exclusive focus on white male subjectivities as figures who had transcended humanity and reached a posthuman state, and, by extension, the implication that white males are the prototypical posthumans, just as they have been, for centuries, the prototypical humans. While *How We Became Posthuman* is a foundational text of posthumanism, it is deeply contradictory. Hayles notes that the "we" of the title is also meant ironically, "positioning itself in opposition to the techno-ecstasies found in various magazines…which customarily speak of the transformation into the posthuman as if it were a universal human condition when in fact it affects only a small fraction of the world's population" (6). Given that Hayles makes statements like these in both the introduction and conclusion of *How We Became Posthuman*, the omission of attention to race in the body of the work is all the more perplexing.

Another foundational figure in posthumanism is Donna Haraway, whose groundbreaking 1985 essay, "A Cyborg Manifesto" – published fourteen years before *How We Became Posthuman* – points to a more inclusive and revolutionary path forward for the posthuman. Haraway argues for the posthuman figure of the cyborg as both a literal construction of a human

fused with a machine, but also, more abstractly, as any representation of humans that challenges the boundaries of the old patriarchal hierarchy. The cyborg, for Haraway, is a figure of "partiality, irony, intimacy, and perversity"; in writing about the cyborg, Haraway argues for "*pleasure* in the confusion of boundaries and *responsibility* for their construction" (150). As I will expand further in the third chapter of this dissertation, the cyborg, for Haraway, is a figure not of limitation or repulsion, but of liberation – a means of escaping liberal humanism's focus on the white man as exemplar of the human. Although "A Cyborg Manifesto" is largely concerned with gender and feminism, Haraway is also attentive to questions of race. She notes that "'women of colour' might be understood as a cyborg identity," considering the ways female authors of color use language to subvert the central stories and myths of Western culture that have historically centered white men and othered women and people of color (174-175). While more explicit attention to questions of race would be helpful, Haraway's call for the breakdown of boundaries and for pride in the cyborg state, rather than shame, ultimately transcends its focus on gender and acts as an intersectional call for liberation from the strictures of Western liberal humanism's conception of the human.

Notably, since the publication of "A Cyborg Manifesto," Haraway has distanced herself from the term "posthuman." In a 2006 interview, she called the term "way too restrictive" and explained that the term is "too easily appropriated" for overly simplistic techno-utopian transhumanist visions; rather, she views her work – and her more recent use of the term "companion species" – as "in alliance and in tension with posthumanist projects" (140). Haraway's nuanced reading of the posthuman and interest in critically distancing her work from the term points to the problems endemic in posthumanist discourse, in which the focus is entirely on the technological, aesthetic, and/or philosophical aspects of the posthuman, with no

recognition of its racial or gendered valences.

It is worthwhile to map a few more recent contributions to discussions of the posthuman, even as they operate with a different understanding of the posthuman than this dissertation. The political philosopher Jane Bennett argues for "vital materiality" that runs through not only humans but also nonhuman/non-animal things in her book *Vibrant Matter: A Political Ecology of Things* (2010). Building on actor-network theory, especially Bruno Latour's notion of the actant, Bennett argues that nonhuman bodies are not passive, but active – able to produce effects (5). Nonhuman, seemingly inanimate things – for example, a black plastic work glove, a bottle cap, a mat of oak pollen, a dead rat, and a stick that Bennett sees caught in a storm drain in Baltimore – have "thing-power" and "energetic vitality," meaning they are not merely reducible to the inert objects that humans typically view them as (4, 5). These nonhuman beings can form agentic assemblages, a term Bennett borrows from Gilles Deleuze and Félix Guattari. Bennett explains that assemblages are a form of distributive agency, "ad hoc groupings of diverse elements…living, throbbing confederations…not governed by any central head" (23-4). By seeing the assemblage – for example, the electrical grid – as agential, Bennett contests human-centered notions of agency and power. The stakes of Bennett's argument are primarily environmental and ecological, demonstrating that humans are only one part of an interconnected web of nonhuman and nonanimal actors. Bennett effectively argues for decentering the human in our understanding of agency, but she neglects to define "the human," defaulting to a biological rubric that groups all humans together as one entity. In doing so, Bennett – like Hayles – reinscribes the Western liberal humanist conception of the human as the paradigm.

Published in the same year as *Vibrant Matter*, Cary Wolfe's *What is Posthumanism?* (2010) also argues for the agency of nonhuman animals, though from a very different angle than

Bennett. Wolfe writes that he frames his work through an understanding that " 'the human' is achieved by escaping or repressing not just its animal origins in nature, the biological, and the evolutionary, but more generally by transcending the bonds of materiality and embodiment altogether" (xv). Wolfe places his position in contrast to Hayles: while Hayles associates posthumanism with disembodiment, Wolfe specifies that he means posthumanism as an era that comes after humanism (and also before humanism), one in which "the decentering of the human by its imbrication in technical, medical, informatic, and economic networks is increasingly impossible to ignore," and that, correspondingly, requires new theoretical paradigms (xv). One of the major stakes of Wolfe's work is advocating for the ethical standing of nonhuman animals, contesting the accepted moral hierarchy of human/animal (vii).

Rosi Braidotti's *The Posthuman* (2013) offers yet another approach to posthumanism, one that is much more attentive to the Eurocentric bias in theories of posthumanism. Braidotti considers herself anti-humanist, and foregrounds a critique of the exclusionary, Eurocentric nature of humanism: "In so far as difference spells inferiority, it acquires both essentialist and lethal connotations for people who get branded as 'others'. These are reduced to the less than human status of disposable bodies. We are all humans, but some of us are just more mortal than others" (15). Braidotti calls for more "ethical accountability in dealing with the legacy of Humanism" and suggests that, while she is anti-humanist, we do not need to dispense with humanism entirely, but to reconceptualize it outside of its constricting Eurocentric lens. She writes: "A new agenda needs to be set, which is no longer that of European or Eurocentric universal, rational subjectivity, but rather a radical transformation of it, in a break from Europe's imperial, fascistic and undemocratic tendencies" (52).

As I mentioned above, Nakamura and Weheliye have been major inspirations for this

project, and it is worth delving into their work more thoroughly to frame my thinking. As I mentioned at the beginning of this introduction, Nakamura's work is concentrated primarily on the digital realm; through two volumes – *Cybertypes: Race, Ethnicity, and Identity on the Internet* (2002) and *Digitizing Race: Visual Cultures of the Internet* (2008)[3] – she contests the overriding notion of the internet as a techno-utopian race-blind space, making legible racial representations in digital spaces. Her notion of "cybertypes" – describing "the distinctive ways that the Internet propagates, disseminates, and commodifies images of race and racism" – is especially influential in my reading of the virtual avatars in *Ready Player One* (3). While in *Cybertypes*, Nakamura primarily considers the way visual and textual internet interfaces reify racial categories, in *Digitizing Race*, she looks at the internet as a space for both "hegemonic and counterhegemonic visual images of racialized bodies" (13).

Notably, Nakamura does not frame her study with the term posthumanism, though she does critique posthumanism, at one point, as "a seemingly neutral term that excludes categories such as gender and race" and yet is always imbued with racial subtext (*Digitizing* 134). In the introduction to *Cybertypes*, she levels a similar critique at postmodern theory and its intersection with cyberculture: "The celebration of the 'fluid self' that simultaneously lauds postmodernity as a potentially liberatory sort of worldview tends to overlook the more disturbing aspects of the fluid, marginalized selves that already exist offline in the form of actual marginalized peoples, which is not nearly so romantic a formulation" (xvi). In my reading, this critique of postmodern theory and cyberculture extends to posthumanism and is revelatory in its pinpointing of postmodernism's – and, by extension, posthumanism's – push to consider us all as equally "marginalized and decentered" and its disinclination to so much as consider the fact that some

[3] Nakamura also co-edited the anthology *Race in Cyberspace* (2000) along with Beth E. Kolko and Gilbert B. Rodman.

humans are considerably more marginalized and decentered than others. In making legible the racial biases of digital technology, Nakamura demonstrates that this posthuman technology does not, in fact, provide a race-blind techno-utopia, but rather a new way to perpetuate stereotypes and social biases.

Weheliye offers the most radical rethinking of the posthuman, contesting the paradigm of liberal humanist subject that many other posthumanist thinkers take as a given. In *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human* (2014), he overturns this now almost-cemented thinking about the human, arguing for thinking about the human as a “heuristic model” rather than an “ontological fait accompli” (8). He writes: “[W]hat different modalities of the human come to light if we do not take the liberal humanist figure of Man as the master-subject but focus on how humanity has been imagined and lived by those subjects excluded from this domain?” (8). Weheliye seeks not to decenter the human, but Man, who “represents the western configuration of the human as synonymous with the heteromasculine, white, propertied, and liberal subject that renders all those who do not conform to these characteristics as exploitable nonhumans, literal legal no-bodies” (135). He critiques posthumanist discourse for presuming that everyone has equal access to humanity, and that all people want to overcome humanity, rather than recognizing – and first aiming to overturn – the continued hierarchy of human, not-quite-human, and nonhuman that organizes society. Instead, he builds on the work of Black feminist thinkers Hortense Spillers and Sylvia Wynter to argue that Black studies can disrupt the default yoking of human to “Man.” To date, Weheliye’s work provides the most thorough critique of posthumanism and its blind spots concerning race; while his work is centered in Black studies, it extends to all marginalized people, including – for the purposes of my project – the Asian/Asian American posthuman.

In addition to Nakamura and Weheliye, several other scholars have done important work critiquing posthumanism's default whiteness. In *The Souls of Cyberfolk: Posthumanism as Vernacular Theory* (2005), Thomas Foster argues for the need to identify the racial subtexts of the posthuman, with a cogent critique of posthumanism's paradoxical elision of race. In her introduction to *Afrofuturism*, a 2002 special issue of *Social Text*, Alondra Nelson gives a thorough overview of the rise of techno-utopianism in the 1990s and its corresponding belief in a race-free online future. Finally, Kodwo Eshun's *More Brilliant Than the Sun: Adventures in Sonic Fiction* (1998), Kalí Tal's 1996 piece "The Unbearable Whiteness of Being: African American Critical Theory and Cyberculture," and Andrew Ross's 1993 article "The New Smartness" have each made important contributions to dismantling the prevailing myth of race-blind posthumanism and been influential in my thinking.

Techno-Orientalism and Asian Futurism

In unsettling the boundaries of both science fiction and posthumanism, my dissertation builds on studies of Orientalism, particularly the key notion of techno-Orientalism. In 1995, the media and cultural studies scholars David Morley and Kevin Robins coined the term "techno-Orientalism" to describe the phenomenon of seeing Asians – and specifically, the Japanese – as synonymous with technology, to the degree that they are no longer viewed as fully human. Techno-Orientalism, Morley and Robins argue, embodies the West's resentment of Japan's economic and technological progress, as well as its fear of Japan destabilizing the West's identification with modernity. In 2008, Greta Aiyu Niu updated the term techno-Orientalism beyond its original focus on Japan to encompass all Asian nations, including those considered emerging economies; additionally, she expanded its focus from a pure identification of Asians

with technology to the "practice of ascribing, erasing, and/or disavowing relationships between technology and Asian peoples and subjects" (74).

The most influential work for this dissertation is the Winter 2008 special issue of *MELUS*, titled *Alien/Asian*, edited by Stephen Hong Sohn. This special issue is a foundational text in Asian futurism, one of the first to draw attention to its previously overlooked possibilities. In the introduction, Sohn contributes an especially compelling discussion about the value of putting techno-Orientalist works (*Blade Runner*, *Neuromancer*) in dialogue with Asian American science fiction and speculative fiction as a means of understanding the relationship between geopolitics and domestic race relations. In addition to innovative work by Bahng and Betsy Huang, this special issue also includes the article by Niu in which she formulates her influential expansion of the term techno-Orientalism.

Sohn also includes a chapter on Asian American speculative fiction in his book, *Racial Asymmetries: Asian American Fictional Worlds* (2014), in which he argues that the genre of speculative fiction allows Asian American authors to distance themselves from the narrator and/or protagonist. This distancing then encourages readers to move beyond autobiographical or ethnographic interpretations of the work (173). Betsy Huang makes a similar argument in a chapter devoted to science fiction in her book, *Contesting Genres in Contemporary Asian American Fiction* (2010). As Huang writes, science fiction "affords the Asian American fiction writer unique narrative tools for destabilizing the generic and social imperatives that have governed Asian American literary production" (100). Both chapters are especially insightful in placing the increase in Asian American science fiction into the larger context of Asian American literature.

Two critical anthologies further help to map the intersection of Asia and science

fiction/speculative fiction. *Techno-Orientalism: Imagining Asia in Speculative Fiction, History, and Media* (2015), edited by David S. Roh, Huang, and Niu, further refines Niu's innovations on the definition of techno-Orientalism; in the introduction, Roh, Huang, and Niu write that they define techno-Orientalism as "the phenomenon of imagining Asia and Asians in hypo- or hypertechnological terms in cultural productions and political discourse" (2). *Dis-Orienting Planets: Racial Representations of Asia in Science Fiction* (2017), edited by Lavender, includes several essays on techno-Orientalism, along with other scholarship surrounding representations of Asia and Asians in science fiction. Both anthologies are important touchstones in highlighting the persistent techno-Orientalism of science fiction and beginning to map a way forward for Asian futurism.

Still, there remains a lack of work on Asian and Asian American representation in science fiction. Afrofuturism is now an established sub-field of science fiction, and Indigenous and Latinx futurisms are emerging sub-fields, but Asian futurism is comparatively understudied and undertheorized. Scholars such as Sohn, Huang, and Bahng have all made important contributions to Asian futurism, but no monograph has been published on this subject. Christopher Fan has also published several valuable articles on techno-Orientalism and Asian American speculative fiction but has not yet published a monograph. My project aims to fill this research gap, focusing a critical spotlight both on portrayals of Asians and Asian Americans in this historically white genre and on recent efforts to complicate and respond to science fiction's overwhelmingly Orientalist narrative.

In my study of Asian futurism, I owe a great debt to Afrofuturism and Afrofuturist scholars, whose pioneering work paved the way for considerations of the intersection of race and science fiction. As Octavia Butler wrote in her groundbreaking 1980 essay, "Lost Races of

Science Fiction": "Science fiction reaches into the future, the past, the human mind. It reaches out to other worlds and into other dimensions. Is it really so limited, then, that it cannot reach into the lives of ordinary everyday humans who happen not to be white?" Along with Samuel R. Delaney, Butler asserted the need – in both her own science fiction and in her criticism – for more science fiction featuring characters who are people of color, as well as more science fiction authors of color. The work of Afrofuturist scholars including Mark Dery, Thomas Foster, Eshun, Tal, Nelson, Lavender, and Weheliye has been formative for my thinking and in empowering me as a scholar to contest what I see as an increasingly narrow, unraced vision of the posthuman.

Future Asians

In March of 2021, I presented a paper adapted from this dissertation – on the speculative poetics of Franny Choi – at an international conference on science fiction. This was one of the primary conferences in the field, with 92 panels over four days, discussing everything from mermaids and werewolves to *Avatar* and *Mad Max: Fury Road*. And yet, the panel I was on – along with a scholar presenting on Latinx Futurisms and a scholar presenting on Chinese science fiction – was titled "Other Futurisms." Mermaids, werewolves, the na'vi, and the post-apocalyptic hellscape of *Mad Max* did not count as "other" futures – not to mention the hundreds of other futures represented in those 92 panels – but Asian American, Asian, and Latinx futures did? Here is a major problem – one that, at least, we discussed at the outset of our panel.

I share this anecdote to illustrate the ongoing need for both creative and scholarly work that challenges the assumptions of this historically white genre and opens up new possibilities for configurations of race and power. If I had any doubt, the incident at this conference confirmed for me that the default future in the science fiction imaginary is a white, American one. At stake

is no less than the question: who gets to have a future? Science fiction, of course, does not dictate what will happen in the future, but it allows us – writers, readers, and scholars alike – to consider an array of possibilities for what the future could look like. Will the future simply replicate contemporary injustices or can we envision more equitable possibilities?

In *Future Asians*, I argue that posthumanism is not only deeply racialized, but also weaponized for geopolitical purposes in the United States' conflict with rising Asia. By focusing on representations of Asians and Asian Americans as posthuman, I directly engage with the persistent trope of Asian bodies as emotionless machines – a trope that exists not only in science fiction, but also in our contemporary U.S. society. One of my primary goals in this project is not to dwell only on instantiations of techno-Orientalism – an all too-tempting prospect, given the quantity of techno-Orientalist primary texts. Rather, I aim to move beyond instantiations of techno-Orientalist visions of the posthuman to illuminate texts that engage with reclamation of the Asian posthuman figure and, ultimately, liberation from the prevailing Western liberal humanist concept of the cishet, white man as the paradigmatic human. To this end, I focus two out of three of this project's chapters on Asian American authors – the fiction writer Charles Yu, and the poets Franny Choi and Sun Yung Shin – who subvert techno-Orientalism and embrace posthumanism.

This dissertation is focused on texts that center on East Asian characters or characters of East Asian descent; the nations under specific consideration in the texts of this project are: Japan, China, South Korea, and Taiwan. In making this largely East Asian-focused text selection, I do not mean to erase important work that has been done – both critically and in science fictional output – concerning science fiction about Southeast and South Asian nations, and especially their bodily economies (tissue and organ transplants, surrogacy) and labor economies. Rather, this

dissertation locates the center of Western economic and technological anxiety toward Asia in East Asia, and therefore concentrates on that region.

In this project, I concentrate on 21st-century science fiction in order to explore the renewed Western fear of rising Asia, and the expansion of that anxiety – both in global politics and in science fiction literature – beyond the 1980s and 1990s fear of Japan. The choice of time period is framed by recent developments in Asian biotechnology and the West's perceived dangers of threats to bioethics and biosecurity. In thinking about the international scientific context for the primary works, I am interested in incidents that particularly provoked Western anxieties about Asian bodies, beginning with the 2002-2003 SARS outbreak. In 2004, South Korean scientist Hwang Woo Suk and his team published a paper in *Science* saying that they had cloned the first human embryo and extracted stem cells from it; the following year, his team published another paper in *Science*, claiming that it had repeated the procedure. Hwang was considered a national hero, with the government giving him the title of "supreme scientist" and granting him millions of dollars in research funds. But after more scientific scrutiny of Hwang's papers, it became clear that the results had been fabricated; *Science* retracted both papers, and, in 2006, Hwang was indicted on charges of fraud and embezzlement. In the wake of the scandal, U.S. news media correlated Hwang's rise and fall with the nation of South Korea, suggesting that the nation itself was partly responsible for Hwang's fraud; a 2006 *New York Times* headline read, "In a Country that Craved Respect, Stem Cell Scientist Rode a Wave of Korean Pride."

At the end of 2018, another biotechnological scandal unfolded with the announcement from Chinese scientist He Jiankui that he had used CRISPR to edit the genes of two human embryos – twin girls – in order to prevent them from inheriting HIV. In this case, He was hardly lauded as a hero; rather, he received immediate censure from both his university and the Chinese

government for violating international bioethical agreements. Nonetheless, the U.S. media has still strongly associated He's work with the nation of China, again suggesting that the Asian nation is responsible for He's defiance of bioethical standards; for just one example, an NPR headline from February 2019 reads, "Gene-Editing Scientist's 'Actions are a Product of Modern China.'"[4] Notably, despite world-wide media coverage, He did not initially provide any proof that the gene-editing actually took place or that it was successful, though the Chinese government has since confirmed the birth of the gene-edited babies.

I view these events – and the U.S. media response to them – as the crystallization of a growing U.S. anxiety about Asian scientific practices and standards. Most recently, the Covid-19 pandemic has unleashed another wave of geopolitical tension, as well as anti-Asian sentiment in the U.S., demonstrating the ongoing relevance of posthuman figurations of the Asian body. With this project, I first argue for the geopolitical stakes of equating the Asian body with the posthuman. I then move from critique to considerations of resistance, illuminating the work of Asian American authors who are offering new visions of both the posthuman and of the future, showing not only how the posthuman has been leveraged against the Asian body, but also how Asian futurism can reclaim the posthuman.

Chapter Summaries

Chapter One: Ready Player One *and the Reassertion of United States Economic & Technological Supremacy*

I begin with an instantiation of techno-Orientalist posthumanism, Ernest Cline's 2011 *Ready Player One*, in which I focus on the novel's often overlooked Japanese characters. While

[4] In both this headline and the accompanying article, NPR is quoting Yangyang Cheng, who, in 2019, was a particle physicist and postdoctoral researcher at Cornell University.

the novel takes place in 2045, I argue that its narrative acts as an allegory for present-day global economic tensions between a recession-era U.S. and rising Asia. The novel re-asserts U.S. economic and technological dominance in the present day, both by writing a narrative in which America regains mastery of the 1980s from Japan and also by visualizing the future as one in which American values save not only the nation but the planet as a whole. In a broader sense, this chapter considers how Morley and Robins' formulation of techno-Orientalism has transitioned into the 21st century, as the West's sense of economic and technological threat has shifted from Japan to China.

Framed by Nakamura's concept of the cybertype, I argue that, in its portrayal of its Japanese characters as tropes of both pre-modern and post-modern Japan (the samurai and the *hikikomori*, or shut-in), the novel stages a confrontation between a vision of the United States as a breeding ground of individualism and ingenuity, versus a vision of Japan that emphasizes homogeneity and conformity. In this way, the novel suggests that the American characters have the traits necessary to succeed in a future ruled by global dystopia, whereas the Japanese characters do not even have the skills to survive. While seemingly hewing to the techno-utopian vision that digital posthumanism will be liberatory for people of color and women, the novel in fact demonstrates the opposite, reinscribing the centrality of the Western liberal humanist subject – the novel's hero, Wade Watts, a cishet white man – as the paradigmatic human, asserting his dominance in both real and virtual life.

Chapter Two: Genre and the Generic Human in How to Live Safely in a Science Fictional Universe

In the second chapter, I move from Cline's techno-Orientalist posthumanism to Charles

Yu's *How to Live Safely in a Science Fictional Universe* (2013), which knowingly explores not only the posthuman figuration of Asian bodies but also the generic limits of science fiction and Asian American literature. This chapter considers the posthuman trope of the non-singular self, represented in the novel through the science-fictional concept of the time-travel double. Set in an unspecified time in the future, the novel is narrated in first-person by a protagonist who is meta-fictionally also named Charles Yu, and also, like the novel's author, Taiwanese-American. Written in the guise of a self-help book, the novel foregrounds the question of whether economic mobility – the American Dream – still exists, or whether the American notion of pulling oneself up by one's bootstraps, as encapsulated in self-help literature is, in fact, pure myth, especially for those who do not fit the Western paradigm of the human: people of color, women, and other marginalized communities.

I contend that it is the very act of giving up the commitment to the Western notion of the individual self – through interacting with his time travel double – that allows the novel's protagonist to break free of the model minority myth and the pressures of assimilation for Asian immigrants to the U.S., as well as the dehumanizing effects of the corporate-controlled world. Finally, I argue that the novel's generic ambiguity challenges both the tropes of science fiction and the tropes of the immigrant narrative, formally underlining the novel's argument against assimilation by refusing to assimilate to either genre.

Chapter Three: "In the future, no one is completely human": Posthuman Poetics in Sun Yung Shin's Unbearable Splendor *and Franny Choi's* Soft Science

In the third and final chapter, I look at two recent poetry collections, Sun Yung Shin's *Unbearable Splendor* (2016) and Franny Choi's *Soft Science* (2019), that each interrogate,

subvert, and ultimately reclaim the Asian posthuman. I broaden the formal scope of my project by looking beyond the novel – typically the representative form for science fiction – and toward science fiction poetry, a burgeoning subgenre of science fiction that has received relatively little critical attention. In examining the posthuman grammars of these two collections, I ask: how can poetry – with its emphasis on sonic and linguistic experimentation over plot and character – represent the posthuman differently than prose? Both Shin and Choi include a wide range of posthuman narrative personas in their respective collections, including the cyborg, the android, the robot, a machine reaching the Singularity, and a group of South Korean clones. In taking on these myriad posthuman personas, Shin and Choi create new alliances and possibilities for understanding between human and machine. They suggest that the boundaries between the two are not as stable as they are often portrayed, and that written language – while a human construct – is capable of representing a multitude of voices, human and nonhuman.

Through both the form and content of their poems, Shin and Choi demonstrate that technological and biotechnological posthumanism is not race-neutral but, in fact, racialized. Rather than distance themselves from these techno-Orientalist tropes of science fiction, Shin and Choi directly contend with techno-Orientalism by celebrating the alliance of an Asian speaker and machine counterpart. Both collections self-consciously engage with techno-Orientalism, subverting it by offering an embrace of the machinic and by rejoicing in the breakdown of boundaries that techno-Orientalism condemns. Ultimately, I argue that Shin and Choi's posthuman poetics challenge both techno-Orientalism and anthropocentrism, positing an alliance between the poems' posthuman figures and their Korean-American human speakers that decenters the Western conception of the paradigmatic human as a white male.

Interludes: Nuclear, Crispr, Sex

Interwoven with these three scholarly chapters are three nonfiction interludes that consider contemporary – rather than science-fictional – technologies. In looking at nuclear technology, gene-editing technology, and sex doll/sex robot technology, I demonstrate that the posthuman is not purely a science-fictional concept, but rather is already ingrained in these contemporary technologies' relationship to the Asian body. By drawing on archival material, cultural criticism, and personal reflection, each of the three interludes grounds my scholarly research and argumentation through my lived experience as an Asian American woman. The first interlude, "Nuclear," looks at the way nuclear technology has been leveraged against the Japanese; it includes close readings of telegrams from President Truman's archive that show the dehumanization of the Japanese, a consideration of *hibakusha* – survivors of the bomb – and the posthuman ramifications of the nuclear radiation, and an exploration of the genealogy of the Godzilla movies and their increasing disarticulation from their nuclear message. The second interlude, "Crispr," examines gene-editing technology, arguing that the rhetoric around the 2018 Crispr scandal served geopolitical purposes for the U.S. in their technological competition with China; it is framed through my viewing of the YouTube videos produced by He Jiankui's lab to justify the experiment, and also includes analysis of news articles, scientific journals, and the notes from Senate subcommittee meetings. The third interlude, "Sex," looks at the racialized development of sex dolls and sex robots and their consistent inclusion of the figure of the geisha; it includes close readings of website copy, the history and ethical conversation around both geisha and sex dolls, and a consideration of the geisha characters in the television show *Westworld*.

At the very end of *How We Became Posthuman*, Hayles writes: “The best possible time to contest for what the posthuman means is now, before the trains of thought it embodies have been laid down so firmly that it would take dynamite to change them” (291). More than twenty years have passed since the publication of Hayles’s book, and the trains of thought regarding the posthuman are still, mostly, unsteady and contested. But as contested as the posthuman is, it nonetheless threatens to solidify around one central commonality: its purported race-blindness. With this project, I aim to explode this myth and replace it with a consideration of how the posthuman can offer true liberatory potential. We still have time to posit different visions of the posthuman, to envision more equitable futures. It is not too late.

Interlude: Nuclear

When I first watched *Godzilla*, in the spring of 2021, I expected a hokey monster movie, one with cheesy special effects and B-movie acting. It was almost seventy years after the Japanese film's 1954 release, but only a few weeks after the March 31st release of *Godzilla vs. Kong*, the latest installment in the 36-movie franchise, and the fourth U.S. film. In the United States, the Covid-19 vaccine was in the midst of its roll-out, the end of social distancing and quarantine in sight but not yet fully realized. Here was a movie that provided an escapist jaunt, the spectacle of the two monsters crashing their CGI-bodies into one another, destroying whole cities, threatening to obliterate humanity. A relief – and a release – to see such destruction contained to an hour and fifty-three minutes after a quarantine that seemed to have no clear endpoint; to see such obliteration contained to a space the size of a television screen, after watching the virus devastate cities all over the world. For a weekend, the movie dominated my Twitter feed, a subject of universal bemusement. Nothing about *Godzilla vs. Kong* was serious, and this was its pleasure.

I wasn't thinking about *Godzilla vs. Kong* when I pressed the button to rent the original *Godzilla* a few weeks later, at least not explicitly. But the past seventy years of monster movies couldn't help but color my expectations, the cartoonishness of the plotlines, the schlock of the special effects. I was surprised when, from the opening scene, the film was somber and distinctly un-schlocky. The movie opens with a close-up on the wake of a boat before panning out to the sailors, young Japanese men, who are about to fall victim to what we later realize is a nuclear blast – a blinding light, a fire. At first, the disappearance of the ship, and several others like it, is a mystery. But soon the source of the destruction becomes known, as an enormous prehistoric

lizard emerges from the depths of the sea. Gojira, as the creature is called in Japanese, has been living in a hidden sea cave, but he has been driven to the surface by repeated underwater hydrogen-bomb testing, which has both angered him and made him highly radioactive, giving him his trademark atomic breath. Over the course of the film, Godzilla rages, first, across a rural island, and then, much more menacingly, across densely-packed Tokyo. He crushes buildings underfoot, he lifts train cars full of terrified passengers and smashes them between his reptilian hands. The city he leaves behind – the structures leveled, the detritus charred black, the air full of smoke, with small pockets of fire burning everywhere – looks exactly like photos of Hiroshima and Nagasaki after the detonation of the atomic bomb.

Because of his violence and the scale of his destruction, many interpret Godzilla as a stand-in for the United States, for the violence it wrought with the atomic bomb. I, too, had assumed all this time that Godzilla was a villain. But, to my surprise, despite the mass destruction and death Godzilla leaves in his wake, the movie does not portray him as a simply a monster. He, too, is a victim. He has been torn from his prehistoric state and thrust into the science-fictional future, his body mutated by weapons beyond his understanding. He is a symbol not only of destruction, but also of survival: machine guns don't harm him, nor do cannons or missiles or fighter planes.

"Godzilla was baptized in the fire of the H-bomb and survived. What could kill him now?" asks one of the film's main characters, the paleontologist Dr. Yamane.

At 5:29 a.m. on July 16, 1945, the first ever atomic device was detonated at the U.S. Air Force's Alamogordo Bombing and Gunnery Range in the Jornada del Muerto desert in New Mexico. The desert – whose name, all too aptly, translates to "journey of the dead man" – lies

approximately 210 miles south of Los Alamos, where the bomb had been conceived and produced by scientists at the top-secret Manhattan Project, led by theoretical physicist Robert Oppenheimer. That first bomb was called the Gadget, a remarkably diminutive name for a device that would release an explosive force equivalent to 21,000 tons of TNT (Grant). The test was given the name Trinity; though Oppenheimer would later claim he couldn't remember the name's origins, a pervasive theory attributes its inspiration to poet John Donne's "Holy Sonnet XIV: Batter my heart, three person'd God" (Wellerstein, Simon).

When the Gadget was detonated, the first thing observers saw was an intensely bright flash of light, a searing burst that could be seen for 160 miles (Grant). Then came the fireball, then the plume of smoke, flowing upward before flattening out into the now-famous mushroom cloud. The scientists themselves did not fully know what to expect; "we are going into the unknown," scientist Edwin McMillan told his wife, Elsie, before the test ("The Trinity Test"). They had thought that the bomb would release between 700 and 5,000 tons of TNT, not more than 20,000 (Wellerstein). When the smoke cleared, the Gadget had left behind a crater half a mile wide; the heat was so intense, that it melted the asphalt and sand below, creating a mildly radioactive glassy mineral named Trinitite. This was the plutonium bomb that the United States would unleash on Nagasaki less than a month later; the uranium bomb that dropped on Hiroshima was never completely tested, so sure were the scientists of its success (Carr). This was the moment that ushered in the Atomic Age. This was the level of destruction – far exceeding the scientists' plans – witnessed firsthand.

The story of the atomic bomb is a story of names, of the way names can cover up violence, of the way names can obliterate humanity. Trinity and the Gadget, Little Boy and Fat Man. Hiroshima and Nagasaki. Human and animal. Animal and monster.

On August 6, 1945, a B-29 bomber called the Enola Gay – named for the pilot's mother – dropped the world's first atomic bomb on the city of Hiroshima (Longden). Codenamed Little Boy, the bomb was dropped from about 31,000 feet and fell for 43 seconds, exploding 1,900 feet above the ground. The bomb detonated with the force of approximately 15,000 tons of TNT, forming a mushroom cloud about 60,000 feet tall and flattening almost every building in a one-mile radius ("The Atomic Bombing"). Eighty-thousand people were killed instantly, the majority of whom were civilians; another 60,000 are estimated to have died from the after-effects of the bomb – burns, suffocation under rubble, radiation poisoning – bringing the total count to 140,000, more than a third of Hiroshima's population of 350,000 ("Hiroshima and Nagasaki").

The day after the Hiroshima bombing, Senator Richard B. Russell of Georgia sent a telegram to President Truman, imploring him not to pursue a "soft peace" with Japan, but rather to continue dropping atomic bombs and, if a sufficient number of atomic bombs were not available, then "let us carry on with TNT and fire bombs until we can produce them" ("Telegram"). On August 9th, Truman replied: "I know that Japan is a terribly cruel and uncivilized nation in warfare but I can't bring myself to believe that because they are beasts, we should ourselves act in that same manner" ("Harry S Truman's Decision").

That same day, the U.S. dropped a second atomic bomb, this time codenamed Fat Man, on Nagasaki. The explosion killed nearly 40,000 people instantly; it's estimated that another 34,000 died in the bomb's aftermath.

Also on August 9th, Truman received a telegram from a Protestant clergyman, Samuel McCrea Cavert, who had written him to urge that no further bombs be dropped on Japan until the Japanese had “ample opportunity” to reconsider surrender, warning that the use of atomic bombs set an “extremely dangerous precedent for the future of mankind.” Two days later, Truman responded: “The only language they seem to understand is the one we have been using to bombard them. When you have to deal with a beast you have to treat him as a beast. It is most regrettable but nonetheless true (“Correspondence”).

In just two days, the Japanese had gone from beasts who didn’t deserve to have more bombs dropped on them to beasts who did, but that they were, in Truman’s eyes, beasts was unchanging.

After the bombs dropped, a new kind of person was formed in Japan, with a new name: *hibakusha*, survivors of the bomb. These were the people touched by radiation, the people whose skin showed striated marks burned permanently into their skin, whose bodies were fused with the bomb. Bleeding gums, loss of energy, hair loss, high fever – these were some of the immediate effects of radiation poisoning. Bomb survivors who were exposed in utero had increases in mental disability and impairment in physical growth. But the greatest long-term effects were mutations in the DNA of living cells. A year passed, and then two, the radiation taking its time; and then, in 1947, incidences of leukemia began to rise, peaking another four to six years later. The *hibakusha* – those exposed to radiation from the bomb – were estimated to be 46% more likely to develop leukemia than the unexposed population (Listwa).

The people of Hiroshima and Nagasaki were, as American journalist John Hersey put it, “the objects of the first great experiment in the use of atomic power” (“Hiroshima”). They were,

largely, civilians: factory workers, tram operators, doctors, nurses, seamstresses, clergy members, shop keepers, school children. At the time, little was known about radiation poisoning; the scientists at the Manhattan Project thought there would be radiation, but they assumed that anyone exposed would be killed in the blast. Following Japan's surrender, General MacArthur issued an occupation press code, which prohibited Japanese journalists from writing anything about the bombings or the subsequent radiation. With very little official information, rumors spread in Japan that the mysterious illness causing the *hibakusha*'s symptoms was contagious. On August 23rd – seventeen days after the bombing of Hiroshima and fourteen days after Nagasaki – the Japanese government issued a report describing radiation poisoning as an "evil spirit" ("Survivors").

Meanwhile, the U.S. attempted to contain stories about the radiation effects. The first foreign journalist to visit the bomb sites, an Australian named Wilfred Burchett, sent his report to the *London Daily Express* by Morse code in order to avoid the censors. Photography and video footage of the bombings and their aftermath were confiscated ("Survivors"). In late 1945, when, despite attempts at censorship, news of radiation sickness was spreading, Groves was called to testify before a Senate committee. No longer able to deny that radiation sickness was real, he shifted tactics. "[A]s I understand it from the doctors," he told the committee, "it is a very pleasant way to die" (qtd. in Malloy 518).

In 1946, the American journalist John Hersey detailed – in a deeply moving, extensively reported account – exactly how horrifying the radiation poisoning was for the survivors in Hiroshima. How very far from the words *pleasant* or *unpleasant*, how even *unpleasant* would be a blessing. In an account first published with the simple title "Hiroshima" in *The New Yorker*,

and, later that seem year, as a book by the same name, Hersey followed six *hibakusha* in the days and weeks following the bombing. He followed them through fever, dizziness, nausea, fatigue; through broken bones and cuts that would not heal; through losing family members, homes, livelihoods; through guilt, through fear, through their attempts to care for their fellow survivors, through their attempts to go on with their lives, to reassemble them or to start anew. He made them human, which was his goal. The article was a sensation; the book was translated into multiple languages and sold millions of copies, though it was not allowed to be published in Japan until 1949.

But Hersey had not always seen the Japanese through this lens – as fellow human beings. In a 1942 article for *Life*, he called them as an "animal adversary"; in his 1943 book, *Into the Valley*, he described the Japanese fighting on Guadalcanal as "a swarm of intelligent little animals" (Blume 53, 213).

In 1989, for the foreword to a new edition of *Into the Valley*, Hersey wrote: "I resisted the strong temptation to revise 'Into the Valley' for a new edition. The first passages that would be cut would have been those that referred to the Japanese as animals." He continued, explaining that his reporting over the course of World War II had taught him some lessons that "radically" changed his views. He had come to realize, he wrote, "that if our concept of [Western] civilization was to mean anything, we had to acknowledge the humanity of even our misled and murderous enemies" ("War").

For Hersey, too, the Japanese had been beasts; that is, until the bomb made them human.

The U.S. lifted its ban on stories of the radiation effects in 1952, when it ended its occupation of Japan. But many *hibakusha* began to censor themselves, keeping their status as

survivors hidden for decades, both out of shame and out of practicality: status caused them to be denied access to the public baths, discriminated against in hiring, and diminished their marriage prospects, particularly for female survivors, as it was widely believed that *hibakusha* carried serious diseases that would be passed onto their children. One *hibakusha* explained that he wore long-sleeved shirts year-round, even during Japan's sweltering summers, in order to hide his keloid scars – a particular kind of irregular, raised scar tissue that forms when the body heals from trauma, that visually marked the survivors of Hiroshima and Nagasaki.

These were the scars that inspired the mottled skin texture for Godzilla's skin, scars that were prominent and unhidden on his towering 165-foot body.

The most famous *hibakusha* was not a human at all, but a monster.

Throughout *Godzilla*, the film only obliquely references World War II and the two atomic bombs, though, of course, those twin traumas underlie every frame. "I barely escaped the atomic bomb in Nagasaki and now this," a woman says, in the movie's only pointed reference to the atomic bomb. While Godzilla rampages, another woman clutches her child, cowering against a building and sobbing. Through her sobs, she says: "We're going to join Daddy, we'll be where Daddy is very soon." We learn nothing else of this woman, but the inference is clear; the father died in the war.

The clearest allusion to the atomic bomb is in the form of one of the film's main characters, the reclusive Dr. Serizawa, who has secretly invented a terrifying weapon: the oxygen destroyer, a corrosive chemical which destroys all the oxygen in its vicinity. When deployed, the oxygen destroyer first suffocates any nearby organisms, and then destroys the oxygen in the body itself, causing their flesh to dissolve. An Oppenheimer figure, Serizawa fears his research

becoming public and setting off a global arms race; he only agrees to deploy the oxygen destroyer after Godzilla's rampage through Tokyo, and even then, he remains conflicted about the morality of ever deploying such a powerful weapon. He destroys all his research materials, so that no one can ever replicate the weapon; he sacrifices himself, as well, remaining in the depths of the ocean with Godzilla as the oxygen destroyer is activated so that his knowledge will also be erased.

The original Japanese version of the film ends with a close-up on the paleontologist, Dr. Yamane, after Godzilla is obliterated by the oxygen destroyer. While everyone else joyfully celebrates, Dr. Yamane sits alone in the frame. Nothing in his disposition is joyful, or celebratory. He seemingly speaks to himself: "I cannot believe that Gojira was the last of its species. If nuclear testing continues, then someday, somewhere in the world…another Gojira may appear." The film's message is clear: humans must stop nuclear testing and weapons development, or another disaster will certainly occur.

There is a reason I thought Godzilla was only schlock: the American version of the film, retitled *Godzilla, King of the Monsters!*, released in 1956. The heavily edited version of the original film mixed new footage with Canadian actor Raymond Burr, playing the American journalist Steve Martin, intercut with the original footage. The film was cut from 113 minutes to 80 minutes, with much of the political allegory edited down or removed entirely. The American film ends, not with Dr. Yamane's somber warning, but with pure celebration, the newly-inserted Martin reflecting that now the world can "live again."

Godzilla, King of the Monsters! was the only version of the film available in English until 2004, when, to celebrate the original film's 50th anniversary, it ran in limited release with English subtitles across America. The U.S.'s official censorship of Japan may have ended in

1952, but the film, oblique as it was, was still effectively censored for another almost seventy years.

Descriptions of the bombs' effects focus on the physical: the burns, the mutations, the scars, the birth defects. When they touch on the emotional, they tend to center on the survivors' feelings of shame and guilt, on the warnings – like Dr. Yamane's – and the hard-earned wisdom, gained at the expense of hundreds of thousands of Japanese lives.

But what, I wonder, about anger? Where, I want to know, is the rage? Godzilla – a monster unburdened by feelings of shame, unburdened by societal expectations and constraints, unburdened by history – is full of rage: rage at being made into an object of experimentation, rage at the disproportionate and inhuman violence it has been forced to withstand.

As I watched *Godzilla* for the first time, a wave of anti-Asian hate crimes was sweeping across the United States. Just a few weeks before, I had watched a video – taken from an apartment building's security camera footage – of a Filipino woman being kicked repeatedly on the street in New York; I watched as the building's security guard closed the door on her as she struggled to stand, as he pretended not to see her at all. Asians are once again being made into something not-quite-human, but this time it is a virus, not a beast. As I – a half-Japanese woman, born and raised in the United States – read stories about hate crimes in New York, in San Francisco, about the horrific shooting in Atlanta, about the vigils and bystander training and fundraising that followed, I wondered, too, who is allowed to express rage? And how?

At the end of that first film, Godzilla is killed. In his final moments, he writhes under the sea, shocked to have encountered anything that could damage his seemingly impermeable flesh. His body is left lying on the ocean floor, a bare skeleton, his bones denuded. Godzilla, the

monster, with his unmitigated rage, with his almost-limitless ability to act on that rage, had to be stopped; *Godzilla*, the film, with its unabashed nuclear critique, could not make it out into the world unedited. As Dr. Yamane predicted, Godzilla comes back, time and time again, over almost seventy years and 36 official films, but his nuclear message has been dulled and distorted, his rage redirected toward other monsters: Ghidorah, Mothra, Kong. And yet, when I watch him in the original *Godzilla*, his power is undiminished: his refusal to live quietly under the sea, his refusal to submit to a world that is so hostile to him.

I watch as he lays waste to the warships and military jets that seek to destroy him, I watch as he breathes his atomic fire. I watch as he forces the world to contend with his keloid-scarred body, as he forces the world not to look away.

Chapter One: *Ready Player One* and the Reassertion of United States Economic & Technological Supremacy[5]

After Japan's economic rise in the 1980s, American science fiction, and particularly the sub-genre of cyberpunk, responded to the ensuing Japan panic with visions of Japanese or Asian-dominated futures. In the most-cited instances – William Gibson's 1984 novel *Neuromancer* and Ridley Scott's 1982 film *Blade Runner* – a lone white American man must navigate his way through an Asian landscape (Gibson's Chiba City, in a futuristic Japan) or an Asian-dominated America (Scott's Orientalized future Los Angeles). In 1995, David Morley and Kevin Robins coined the term "techno-Orientalism" to describe this vision of Asians – and specifically, the Japanese – as synonymous with technology, to the degree that they are no longer viewed as fully human. What is at stake in these visions of techno-Orientalism is, according to Morley and Robins, "the identity of Western modernity, no less…If the Japanese can become modern, then what is still distinctive about the West? Where and what is the West now? Who is us? That is what Japan panic is about" (173). But while the Japan panic of the 1980s and early 1990s led to an influx of Japanese imagery in science fiction, Japan's role in the science fiction imagination by no means ended with the country's economic downturn. If techno-Orientalism was American science fiction's response to Japan's economic rise, then how has it responded to Japan's fall?

Published in 2011, Ernest Cline's *Ready Player One* reflects changed global economic circumstances: Japan's bubble burst in the mid-90s, plunging the country into a still unresolved

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decades-long recession; meanwhile, the United States entered its own recession in 2008, widely considered the nation's worst financial crisis since the Great Depression. Cline's novel takes place in the United States in 2045, several decades into a severe global recession that has led much of the world's population to seek refuge in the OASIS, a massive multiplayer game whose breadth of world-creation means that people can live almost their entire lives online. The OASIS was created by James Halliday, a white American man, and the impetus for the novel is the contest that the childless (and therefore heir-less) Halliday has left behind in his will: a multi-step treasure hunt for an Easter egg Halliday has hidden deep within the game. The first person to find the egg will inherit both Halliday's enormous fortune and, more importantly, control of Gregarious Simulations Systems, the software company that Halliday co-founded with his friend Ogden Morrow and which owns the OASIS.

Ready Player One was both a commercial and critical success: a *New York Times* bestseller as well as the winner of the 2012 Prometheus Award for Science Fiction and the American Library Association's Alex Award. In 2018, Warner Brothers released a film adaptation, directed by Steven Spielberg, which grossed over $582 million worldwide and received multiple Academy Award nominations; anticipation of the film's release also put the novel back on the *New York Times* bestseller list, where it has spent over 60 weeks in total. Thanks to the novel's success, Cline's influence stretches beyond simply the page and the movie screen. In 2013, the virtual reality company Oculus published a blog post calling the novel "required reading" at Oculus and hosted an in-person visit from Cline; in 2018, the Oculus competitor Vive became the film's official partner, to produce VR experiences inspired by *Ready Player One* ("Ernest Cline Visits Oculus HQ", "Ready Player One VR Arcade"). In 2019, the U.S. Marine Corps added *Ready Player One* to its Commandant's Professional Reading List;

Marines are required to read at least five books from this list each year ("2019 Marine Corps"). Cline's vision, then, has shaped not only readers' and film-goers' understanding of virtual reality, but is also shaping the actual development of the technology itself, as well as its military applications.

Given its broad commercial reach and its potential impact on developing technologies, Cline's novel has received relatively little scholarly attention, particularly in regards to the geopolitics embedded in the novel's staging. The OASIS may at first appear to be a low-stakes virtual space – in co-founder Ogden Morrow's words, "a pleasant place for the world to hide" (120). But far from being simply a "pleasant place" that is separate from the increasingly dystopian real world, the OASIS is deeply imbricated in the life of almost every person on the globe. The novel explains that the OASIS has its own economy and education system: many people work full-time jobs in the OASIS, earning real-world money, and several of the novel's characters attend a virtual high school instead of the government-run public school. Even more important than this tangible influence, the OASIS has users in the billions, with "most of humanity" logging in daily (1). The OASIS controls the world's overall media intake and, specifically, access to information and news, as well as communication and socialization. Lastly, it presumably controls the massive amounts of user data generated by these daily visits. As the novel's villain, Nolan Sorrento, explains: "'There are billions of dollars at stake here, along with control of one of the world's most profitable corporations, and of the OASIS itself. This is much more than a videogame contest. It always has been'" (144). The novel thus displaces the struggle for global dominance from the real world to the virtual realm while nonetheless making it clear that this virtual contest has significant real-world consequences.

But despite its set-up of global recession and the globally-influential contest over control of the OASIS, *Ready Player One* focuses primarily on white male Americans as both protagonist and antagonist. The novel's antagonist is the white male American Nolan Sorrento, who heads up the company Innovative Online Industries (IOI), another American software company that wants control of the OASIS in order to more fully monetize it. The protagonist and first-person narrator of the novel is the eighteen-year-old white male American Wade Watts, who gains distinction by being the first person in the world to solve the first in a series of Halliday's increasingly difficult clues that primarily rely on an extremely thorough knowledge of 1980s American pop culture. Thus, Wade – through his avatar, Parzival, who also appears as a white male – becomes the hero on the quest to find Halliday's egg. Still, he is not entirely alone. Wade refuses to officially team up with other egg-hunters (who call themselves "gunters"), but he does form a loose alliance with four gunters, none of whose real-life identities are known to him for most of the novel. He knows his allies only by their avatars, all of whom are approximately his age: Aech, his best friend, whose avatar is a white American male; Art3mis, his love interest, whose avatar is a white American female; and the already teamed-up Shoto and Daito, whose avatars are Japanese males.

In a novel that is so focused on the United States, why include these two Japanese characters? And, furthermore, why does their portrayal – both in the virtual realm of their avatars and in the real world – rely so heavily on stereotypes of the Japanese? The novel is primarily focused on Wade's coming-of-age story, with its clearest socio-political stakes the fight against the corporation and multi-national capitalism. But the novel is far from being simply a young-adult story about scrappy teenagers taking on the Man. Rather, I read the contest between gunters as geopolitical allegory, in which Japan and the United States compete for an economic future

that is almost exclusively associated with the Internet. In its portrayal of Daito and Shoto as tropes of both pre-modern and post-modern Japan, the novel stages a confrontation between a vision of the United States as a breeding ground of individualism and ingenuity, versus a vision of Japan that emphasizes homogeneity and conformity. Daito and Shoto function as a single Orientalized Other who help to define Wade as a paradigmatic American hero, acting as foils to not only help solidify the persona of the white American in the disembodied space of computer networks but also to show the triumph of this persona in navigating these technologies. Ultimately, I argue that *Ready Player One* re-asserts U.S. economic and technological dominance in the present day, both by writing a narrative in which America regains mastery of the 1980s and also by visualizing the future as one in which American individualism wins out over Asian collectivism, affirming the U.S.'s continuing global dominance.

The Samurai Cybertype & a Return to Japanese Pre-Modernity

Does race matter in cyberspace? A famous *New Yorker* cartoon from 1993 shows a dog sitting at a computer: "On the Internet," he says to another dog, "nobody knows you're a dog" (Steiner 61). This cartoon speaks to the Internet's anonymity, once viewed in a utopian light as a liberatory possibility that would erase markers of race, gender, and other identifiers that cause discrimination in the real world. In her 1995 book, *Life on the Screen: Identity in the Age of the Internet*, sociologist Sherry Turkle quotes an unnamed gamer's explanation of the appeal of online identity: "You can be whoever you want to be . . . whoever you have the capacity to be . . . It's easier to change the way people perceive you, because all they've got is what you show them" (qtd. in Turkle 184). Back in the nascent days of the Internet, it was not uncommon to share this gamer's hopes, but recent scholarship complicates the notion that the Internet is a

utopian, race-blind space. In the introduction to their edited volume *Race in Cyberspace*, Beth Kolko, Lisa Nakamura, and Gilbert Rodman argue against this "popular utopian rhetoric," asserting that race matters no less in cyberspace than it does in real life: "race matters in cyberspace precisely because all of us who spend time online are already shaped by the ways in which race matters offline, and we can't help but bring our own knowledge, experiences, and values with us when we log in" (5).

Because so much of *Ready Player One* takes place in the OASIS, each of the novel's characters maintains two identities simultaneously: their real-world identity and that of their virtual avatar. While many role-playing games today offer limited options for users' avatars, in the OASIS, a user can make their avatar look however they choose, with as much detail as they want. For Wade, this duality offers the utopian possibilities that Turkle's unnamed gamer described; in fact, the way he describes the possibilities of identity creation in the OASIS closely echoes Turkle's language, with an emphasis on individual agency: "You could create an entirely new persona for yourself, with complete control over how you looked and sounded to others. You could change your name, age, sex, race, height, weight, hair color, and bone structure…In the OASIS, you could become whomever and whatever you wanted to be" (57). Wade equates cosmetic modifications that are actually possible in real life, such as changing one's weight and hair color, with the much more permanent markers of sex and race. For Wade, who has no desire or need to change these considerably more charged markers of identity, the dual identity offered by the OASIS presents little conflict, simply cosmetic opportunity; he makes his avatar look "more or less" like himself, only more muscular and with less acne (28). But that friction-less act of self-representation is certainly not the experience of Aech. Wade eventually discovers that Aech is a Black lesbian teenager named Helen who has decided to make her avatar a white

heterosexual man on the encouragement of her mother, a Black woman who also poses as a white man in the OASIS. The novel hardly explores this revelation; we never learn what Aech thinks or feels about her choice of online identity, an elision that is due to Wade's own myopic reaction to her true identity, in which he focuses on his own feelings about Aech's "passing" (betrayal, embarrassment, forgiveness) and ultimately decides to keep calling her "he" (318, 330). Still, Aech's reasons for adopting a different racial identity in the OASIS point to the fact that race is much more important in both the virtual and real world than Wade is either able or willing to recognize.

While Daito and Shoto do not use their avatars to conceal their race, their choice of avatar represents a problematic cybertyping of the novel's only Japanese (and only non-American) characters as figures of pre-modern Japan. The term "cybertypes" was coined by Lisa Nakamura in 2002 to describe "the distinctive ways that the Internet propagates, disseminates, and commodifies images of race and racism," specifically in the creation of virtual avatars (3). The function of the racial cybertype, Nakamura writes, is to "provide familiar, solid, and reassuring versions of race which other users can readily accept and understand since they are so used to seeing them in novels, films, and video games" (40). In the world of the OASIS, the real-world people behind Daito and Shoto could choose to make their avatars look however they want, including as individualized, contemporary Japanese males. Yet, when Wade describes seeing their avatars for the first time, what is most striking is both their almost identical appearance and their decision to hearken back to an earlier era of Japanese history: "Both avatars looked Japanese, and they bore a striking resemblance to one another, like snapshots of the same young man taken five years apart. They wore matching suits of traditional samurai armor, and each had both a short wakizashi and a longer katana strapped to his belt" (152). The armor and

the swords are only the first of their cybertyping: they have named their avatars after the Japanese names for the short and long swords worn by the samurai (129); they are obsessed with samurai movies, airing them 24/7 on their OASIS television channel (204); and they frequently bring up the notion of honor (152, 153, 156, 205). Their avatars – or, at least, what Wade sees of them and chooses to report in this first-person account – have no personality separate from that of their obsessions with enacting the role of samurai. In contrast, Wade has also chosen a pre-modern name for his avatar: Parzival, an Arthurian knight who quests after the Holy Grail. But this name choice is the only pre-modern aspect of Wade's avatar; Parzival dresses in a contemporary style (a T-shirt and jeans), plays a wide variety of pop culture on his OASIS channel, and bears no other markers of pre-modernity.

By introducing these Japanese characters only to reduce them to the samurai cybertype, the novel forces the Japanese characters into a position of historical nostalgia, one which promotes the idea that Japan's greatest period is several centuries in the past, rather than the much more contemporary economic "miracle" of its post-World War II recovery. The novel's choice of avatar for Daito and Shoto is embarrassingly close to Nakamura's description of the Asian cybertype: "The Orientalized male persona, complete with sword, confirms the idea of the Asian man as potent, antique, exotic, and anachronistic" (39). Key here are the notions of antiquity and anachronism; Daito and Shoto's avatars do not represent Japan's hyper-technological present (or probable future) but its non-technological past. Furthermore, the anachronistic choice of samurai as cybertype has even more specific historical meaning, as the decline of the samurai in Japan correlates to its forced "opening" to international trade by Commodore Perry in 1853; in the years following Perry's arrival in Tokyo Bay, the samurai were stripped of their right as the only armed force in Japan, as well as several of the rights that

came with their high status (Chun 186). The samurai thus function as a symbol of outdated technologies and culture, one that cannot survive a confrontation with the United States and the West.

The portrayal of Daito and Shoto's avatars also accentuates the traits of conformity and homogeneity that the West disdains in Japan and often cites as prognostications of its eventual downfall. Japan's culture of conformity and homogeneity has been credited with creating a reliably high level of performance, both in education and in business; however, that same culture is also seen as a potentially limiting factor, reducing opportunities for the innovation and creativity needed for success in the contemporary technological sector. The United States heralds the individual who thinks outside the box; Steve Jobs and Mark Zuckerberg are famous for their innovations, but they are also well-known for their origin stories as drop-outs of prestigious institutions (Reed College and Harvard University, respectively). In contrast with this vision of the individual, rogue genius, Daito and Shoto have created their avatars to look almost identical, not only in their samurai apparel and accessories, but in their physical appearance. They have chosen names that sound almost interchangeable, and are known by the nickname "daisho." The novel justifies this nickname by explaining that "daisho" is the word for the two swords, *daito* and *shoto*, when they are worn as a set (129). But the nickname further collapses their individuality. While the American characters are painted as individuals, Daito and Shoto are portrayed as one homogenous character. Parzival, Art3mis, and Aech each have their own television channel within the OASIS; Daito and Shoto share a channel, with the same combined name, the Daishow (204). And while Wade, Art3mis, and Aech refuse to officially join forces, resolutely maintaining their autonomy in the game, Daito and Shoto are already teamed up, and make their first score within minutes of each other.

Additionally, in terms of the plot, Daito and Shoto add very little toward solving the puzzle or defeating IOI, again suggesting their inferior ability to creatively approach technological problems. Although Wade is the clear hero of the novel, Art3mis and Aech each make important contributions to solving Halliday's puzzle, giving Wade the answers to clues that he cannot decipher on his own and busily working out elements of the puzzle for themselves. In contrast, Daito and Shoto are nothing more than skilled mimics, tracking Wade's movements and then following his actions in order to advance through the puzzle. Morley and Robins write, "Japan can no longer be handled simply as an imitator or mimic of Western modernity" (173). But that is exactly how Daito and Shoto move through the novel. Wade, Daito, and Shoto do go on a quest together, but it is a side story that Wade specifies has no connection to Halliday's puzzle; additionally, Wade initiates the quest, and he only asks Daito and Shoto along because it is a Japanese-language quest and he does not trust his translation software (204). When the three of them complete the quest, they argue about who should take the prize, a rare artifact called the Beta Capsule, which allows the possessor to become Ultraman (or, in Japanese, *Urutoraman*), an alien superbeing who is virtually indestructible. As part of a calculated effort to win favor with Daito, Wade says that Daito and Shoto should keep the capsule, specifically giving *Urutoraman*'s Japanese nationality as his rationale: "'You two should keep the Beta Capsule,' I said. '*Urutoraman* is Japan's greatest superhero. His powers belong in Japanese hands'" (205). But this gesture toward Japanese power is undone by the end of the novel, as Daito's real-world death leads Shoto to give Wade the Beta Capsule; it is Wade who ultimately embodies *Urutoraman*, using his powers to fight Sorrento. Even this relatively minor element of the plot is ultimately co-opted by American power.

Although Daito and Shoto's cybertyping promotes a vision of Japanese culture as homogenous and uncreative, the novel also complicates the dichotomy between American individuality and Japanese conformity by presenting two competing visions of American power, represented by the conflict between Wade and the Sixers. In IOI's bid to win Halliday's contest, the company has hired thousands of egg-hunters who use identical avatars; for their avatar names, the egg-hunters use their employee numbers, which all begin with the numeral "6," giving them their nickname (33-34). Rather than operating individually, the Sixers' gaming rigs are all networked together, so that operators can share control of a single avatar (137). And like Daito and Shoto, the Sixers frequently use surveillance and mimicry – rather than their own ingenuity – to follow Wade's movements through Halliday's puzzle. The Sixers are therefore also a homogenized force with no ingenuity or innovation; they, however, are American.

But the Sixers represent a specific aspect of American power – as Wade explains: "Joining the Sixers was a lot like joining the military" (33). Throughout the novel, the Sixers are described with primarily militaristic language: "five thousand highly-trained combat-ready avatars," "hordes of Sixer spacecraft and troops," "the invading Sixers…all armed to the teeth," "their grand army," and "the largest army in the OASIS" are just a few examples (138, 150, 187, 234, 309). Their shared avatar, too, evokes the image of a soldier: "a hulking male avatar…with close-cropped dark hair and facial features left at the system's default settings…And they all wore the same navy blue uniform" (33-34). While Wade (and also Aech and Art3mis) rely on their advanced technical knowledge and creative problem-solving ability to move through Halliday's puzzle, the Sixers rely on brute force.

With the Sixers' ultimate defeat, the novel argues for a vision of American power that rests on technological ingenuity, rather than military might. Even with vastly superior manpower

and resources, the Sixers are outmaneuvered at the end of the novel by Wade, reflecting the limits of traditional military power in global economic and technological competition. In a 2018 review in the *Marine Corps Gazette* – the professional journal for U.S. Marines – Second Lieutenant Austin Swink argues that the military should read the novel as a cautionary tale: "*Ready Player One* shows how an advanced warfighting organization can be defeated in the cyber domain…it is clear that IOI could be comparable in operations and tactics to the Marine Corps…*Ready Player One* clearly shows how important the cyber domain is, and that the entity that controls it controls the destiny of the world" (np). Just as Japan panic of the 1980s and 1990s could not be resolved through military action, the Sixers' defeat shows that military strength will not be the only – or even the most important – factor in deciding the future of global power. This new battleground paves the way for a new American hero: the console cowboy.

Hikikomori **and Console Cowboys**

What about Daito and Shoto's real-world identities? Here, too, *Ready Player One* paints its two Japanese characters as stereotypes of a failed and weak Japan by casting them as *hikikomori*, a term for social recluses that describes a widespread problem in contemporary Japanese society. According to the Japanese Ministry of Health, Labor, and Welfare, a *hikikomori* must fit five criteria:

> 1) a lifestyle centered at home; 2) no interest or willingness to attend school or work; 3) symptom duration of at least six months; 4) schizophrenia, mental retardation or other mental disorders have been excluded; 5) among those with no interest or willingness to attend school or work, those who maintain personal relationships (e.g., friendships) have been excluded. (Ministry of Health Labor and Welfare, qtd. in Teo and Gaw 445)

Both the numbers for *hikikomori* and the historical origin are hard to pin down exactly. The term was first used in the mid-1980s, with its first academic usage in 1986, but Japanese novels and medical cases both described this form of acute social withdrawal well before that date (Furlong 310, Teo and Gaw 444). The numbers for *hikikomori* are likewise unreliable, ranging from estimates of 200,000 to more than one million *hikikomori* in Japan (Furlong 311-12). Still, the numbers suggest that *hikikomori* are, at the very least, a very real phenomenon in contemporary Japan, one that has gained considerable media attention both in Japan and internationally.

But why, in a projected 2045 in which so much about societal structure has changed, is this artifact of contemporary Japanese society still fully in force? By showing Daito and Shoto (real names: Toshiro Yoshiaki and Akihide Karatsu) as *hikikomori* thirty-plus years into the future, the novel presents Japan's path of economic withdrawal and impotence as irrevocable. While being a *hikikomori* has been viewed primarily as a psychological disorder, sociologist Andy Furlong convincingly argues that the social withdrawal can be linked to changing economic conditions in Japan; Furlong reorients the *hikikomori* phenomenon from one of individual psychology to one of deteriorating labor conditions and the fragmentation of social structures (309). The *hikikomori*'s withdrawal is a response to an increasingly precarious labor market in Japan following the Asian-Pacific recession of the 1990s, a result of which was a rise in youth unemployment and also a sharp shift in the job market toward temporary, rather than full-time, employment (318-9). The fact that *hikikomori* still exist in the Japan of 2045, then, suggests that the Japanese economy has continued to suffer; Japan's failure to solve the problem of *hikikomori* implies a larger failure to re-enter the global economy.

Within the world of *Ready Player One*, Wade exhibits all the traits of a *hikikomori*, and yet he is never labeled with this stigmatizing term or associated with the irreversible economic

downfall it represents. After he begins to gain fame in the OASIS – and come under threat of real-world danger from IOI – Wade retreats to an armored bunker: a one-bedroom apartment that he has retro-fitted with high-tech security including an armor-plated vacuum-sealed WarDoor; he orders everything he needs online – "food, toilet paper, new gear" – and has it delivered to his door, so that he never has to leave the apartment (191). For an entire year, he spends every second inside, ticking off every one of the five criteria for *hikikomori*. Wade even describes himself as a *hikikomori* without using that exact term:

> Standing there, under the black fluorescents of my tiny one-room apartment, there was no escaping the truth. In real life, I was nothing but an antisocial hermit. A recluse. A pale-skinned pop culture-obsessed geek. An agoraphobic shut-in, with no real friends, family, or genuine human contact. I was just another sad, lost, lonely soul, wasting his life on a glorified videogame. (198)

If anything, Wade's isolation is actually more extreme than either Toshiro or Akihide's. They have an intimate friendship with each other, even if it is conducted entirely online, which should – by the official criteria – exclude them from the label of *hikikomori*. At this point in the novel, Wade has isolated himself from both Art3mis and Aech, leaving his only company as Max, the name for his computer system's software. He does still earn money, but his work – endorsing products within the OASIS – takes place entirely in the realm of the virtual, as does his life; at this crucial mid-point of the novel, Wade has completely withdrawn from the real world both economically and socially.

But the novel allows Wade to escape his withdrawal, as he decides to engage in an in-person, real-world mission to IOI headquarters, proving that Wade has both the bravery and the ingenuity to take on this daring quest. Posing as a different real-world identity, Wade arranges to

make it look as if he has gone bankrupt, so that he will be put under corporate arrest and taken into IOI headquarters as an indentured servant; there, he hacks into the IOI database to find out what IOI knows about solving Halliday's puzzle. Throughout his few days at the IOI headquarters, Wade refers to his plan as "clearly insane" and notes that he is "tempting fate more than anyone in their right mind ever would" (288, 278). Never mind that he has prepared in a multitude of ways: wiping his hard drive at home, so IOI can't trace who he really is; taking anti-anxiety pills before his arrest; buying IOI Intranet access codes through an online auction; and, most importantly, setting up a failsafe so that, within a few days of his arrest, his debts (or the debts of the person he is posing as) will be paid and he will be released from his indentured servitude. While the careful reader may note that little can actually go wrong with Wade's plan, the novel sets up the quest as a risk that no one but Wade would take.

Throughout the novel, but especially with his mission into the heart of enemy territory, Wade takes on the identity of the console cowboy, inhabiting the figure of the lone American hero encountering the lawless frontier. Except, for the console cowboy, the frontier is cyberspace, rather than the West; as Frederick Buell writes, "Cyberspace becomes the new U.S. frontier, accessible to the privileged insider who happens to be a reconfigured version of the American pulp hero" (566). The term "console cowboy" first appeared in William Gibson's short story "Burning Chrome" in 1982 and later in his well-known novel *Neuromancer*, where it describes the protagonist, Case, a lone American male hacker living in Chiba City, Japan. As Chun notes in her discussion of *Neuromancer*: "In stark contrast to those working for seemingly omnipotent zaibatsu, for whom power is gained through 'gradual and willing accommodation of the machine, the system, the parent organism,' the meatless console cowboy stands as an individual talent" (187). While *Ready Player One* never directly uses this terminology, it casts

Wade in the mold of the console cowboy: a male American hacker, working as an individual, willing to take incredible risks (or, at least, what the novel views as incredible risks). By making their protagonists console cowboys, both Gibson and Cline suggest that cyberspace is a space that rewards individuality, and is therefore a space that the United States can dominate. Japan, with its homogenized and conformist culture, cannot compete on this new frontier.

In contrast to Wade's seeming invincibility as a console cowboy, there is no such escape for Toshiro (Daito). While more than half of the avatars in the OASIS die toward the end of the novel in a virtual cataclysm – except for Wade's, of course, who is in possession of the key to a second virtual life – Toshiro is the only real-world casualty among the major characters. The method of Toshiro's death is pegged to his existence as a *hikikomori*: a team of Sixers break into his apartment on the 43rd floor of a Tokyo apartment building and throw him off the balcony, making it seem as though he has committed suicide. Toshiro's murder implies that Japan is not even allowed to simply withdraw from the economic competition it has begun with the United States; it must be fully overpowered, completely destroyed.

But why does Akihide survive? Although their avatars, Daito and Shoto, are almost identical, Toshiro and Akihide are distinct in real life, with Akihide the much more Americanized of the two. Akihide tells Wade that his grandmother attended school in the United States, and both his parents were born there; he was raised on American movies and television, and "he'd grown up to speak English and Japanese equally well" (243). Akihide, then, has already been Westernized; he has already accepted the Western culture that *Ready Player One* promotes. He does not only speak English but speaks it "equally well" as Japanese. Additionally, despite being a *hikikomori*, Akihide is less fully withdrawn than Toshiro. The two of them met in an OASIS support group for *hikikomori* and bonded over their shared love of samurai movies.

But, after they became best friends, Akihide had suggested that they meet in person, and Toshiro had "flown into a rage" and stopped speaking to Akihide for several days (244). This extreme reaction suggests that Toshiro is beyond hope for social rehabilitation. Indeed, when Akihide's life is similarly under threat, he is able to leave his home and board a jet to the United States, provided by Halliday's business partner, Ogden Morrow. Thus, with the aid of Western power and capital, Akihide is able to escape his social isolation and survive in order to help the American hero, Wade, in accomplishing his quest. Though he may still return to Japan, Akihide ends the novel in the United States, rich from the share of the prize money that Wade has won and shared with his peers. Ultimately, only the generosity and protection of the Americans allows Akihide to advance through this dystopian world, again suggesting that the United States, and not Japan, holds the keys to the future.

The Global *Otaku*: Rewriting the 1980s, Rewriting the Future

After Toshiro is killed, Japanese newspapers declare: "ANOTHER OTAKU SUICIDE" (242). Until this point, the novel has never referred to any of the characters as *otaku*; with this headline, it is not clear if the novel is accidentally conflating the two terms – *hikikomori* and *otaku* – or if it is purposefully introducing the term *otaku* as another descriptor for Toshiro and Akihide. The term *otaku* is often used in connection with *hikikomori*, but it has its own distinct definition: "Originally in Japan: a person extremely knowledgeable about the minute details of a particular hobby (esp. a solitary or minority hobby): *spec.* one who is skilled in the use of computer technology and is considered by some to be poor at interacting with others" ("otaku, n."). In other words, the emphasis with *otaku* is not social withdrawal or poor social interaction, though those traits may correlate. Rather, *otaku* carry a dual focus on technological acuity and an

intense obsession with a certain hobby; often, this hobby means accruing a vast amount of knowledge about pop culture, particularly anime or manga. *Otaku* are still stigmatized to some degree in Japan, but the global understanding of *otaku* is considerably more positive than that of *hikikomori*; fans of Japanese pop-culture often self-identify as *otaku*, with communities of self-proclaimed *otaku* in countries including the United States, Great Britain, Russia, South Africa, and South Korea (Tsutsui 17).

While *hikikomori* are considered a shameful – and economically draining – social phenomenon that must be contained to Japan, *otaku* are a social phenomenon that has spread globally and are even heralded as a figuration of the being most ideally suited to survive, and thrive, in a postmodern world. Some critics dismiss *otaku* as vacuous and dissociated from reality, driven by an "empty, content-less joy of technology" (Grassmuck qtd. in Morley and Robins 170). But, as Morley and Robins argue, *otaku* may be the best suited to our present technology-fueled moment:

> These kids are imagined as people mutating into machines; they represent a kind of cybernetic mode of being for the future. This creates the image of the Japanese as inhuman…The Japanese are unfeeling aliens; they are cyborgs and replicants. But there is also the sense that these mutants are now better adapted to survive in the future. The *otaku* are the postmodern people. (170)

Japanese cultural critic Hiroki Azuma also situates the emergence of *otaku* culture in the 1970s and 1980s within the context of postmodernism, identifying the *otaku* as "posthistorical man" (16, 69). And Gibson, who established the science fictional paradigm of techno-Orientalism, lauds the *otaku* as a vision of the future: "The otaku, the passionate obsessive, the information age's embodiment of the connoisseur…Understanding otaku-hood, I think, is one of the keys to

understanding the culture of the web. There is something profoundly post-national about it, extra-geographic. We are all curators, in the postmodern world, whether we want to be or not" ("Modern" np).

By creating his puzzle, and setting its extraordinary financial reward, Halliday effectively creates a world full of *otaku*. Succeeding in Halliday's puzzle relies almost exclusively on an obsessive knowledge of 1980s American pop culture. Just as Wade exactly fits the definition of *hikikomori*, Halliday exactly fits the definition of *otaku*: "He also had an extreme obsession on the 1980s, the decade during which he'd been a teenager. Halliday seemed to expect everyone around him to share his obsessions, and he often lashed out at those who didn't" (55). This leads Wade and his fellow gunters to themselves obsessively study every aspect of the 1980s, in the hopes of solving Halliday's clues. Wade can recite movie and television dialogue from the 80s word-for-word; he knows the song lyrics and album art for all of Halliday's favorite bands; and, most importantly, he knows the details and secrets of every video and computer game released in the 1980s and has played most of them umpteen times.

But Halliday's pop-culture canon has a distinct slant: not just toward the 1980s, but toward the white American male output of the 1980s, giving Wade an unconscious advantage. Megan Amber Condis convincingly details this bias, arguing that "the construction of this canon privileges certain kinds of bodies and identities over others. The result is an image of gamer culture in which white maleness is the default assumption against which all participants are measured" (1). In the clearest example of this bias, one of the steps of the puzzle makes the player reenact the 1983 movie *WarGames* by inhabiting the role of Matthew Broderick, a white, American man who, at the time of the film's release, was twenty-one years old. Art3mis alludes to this bias in an email to Wade/Parzival: "'It would have been cool if Halliday had given me the

option to play Ally Sheedy instead, but what can you do?'" (126). All four of Wade's peers – Art3mis, Aech, Daito, and Shoto – are thus forced to conform to gender and/or racial profiles that they do not fit in real life.

Through the American-focused canon of Halliday's puzzle, the novel performs an erasure of Japan's contributions to both technology and gamer culture in the 1980s, thus revisiting the era of Japan panic but rewriting it with a version of that era that marginalizes Japan's technological and cultural impact. "Japan? Did I cover Japan?" Wade says. "Yes. Yes indeed. Anime and live-action. *Godzilla*, *Gamera*, *Star Blazers*, *The Space Giants*, and *G-Force*. *Go, Speed Racer, Go*" (63). But this seems a paltry list in comparison to the lexicon of American films, television shows, bands, and video games that Wade has memorized. Just as the quest Wade goes on with Daito and Shoto is clearly described as unrelated to the overall puzzle, Japanese pop culture is considered simply as an afterthought, a final item to check off one's to-do list. Condis notes this "systematic undervaluing of Japanese contributions to gamer culture," explaining that it is all the more egregious considering that Japan almost single-handedly revived the gaming industry in the United States after the video game crash of 1983 with its introduction of the Nintendo Entertainment Systems (NES), released in North America in 1985 (10). Halliday's canon thus allows the novel to rewrite the narrative of the 1980s in which, rather than eliminating Japan entirely, it actively includes the country in order to reduce it to merely a footnote.

If, as Morley/Robins and Gibson argue, the *otaku* is the figure best equipped to survive in the future, then America – and not Japan – must inhabit otaku-hood. By winning Halliday's contest, Wade proves himself to be the ultimate *otaku*, completing the novel's narrative of American dominance by not only successfully rewriting the narrative of the 1980s but also

claiming dominance over the future. The novel ends with Wade – as his avatar, Parzival – meeting a virtual version of the late James Halliday for a hand-off of power that reinforces a dual vision of American omnipotence and American benevolence. As Halliday transfers his avatar's powers to Wade/Parzival, Halliday tells him: "'I'm entrusting the care of the OASIS to you now, Parzival…Your avatar is immortal and all-powerful. Whatever you want, all you have to do is wish for it…Try to use your powers only for good'" (363). Halliday goes on to show Wade/Parzival a button he calls "the Big Red Button"; pressing the button will permanently shut down the OASIS by deleting the original source code (364). Further reinforcing Wade's omnipotence, Halliday has coded the OASIS so that only Wade's avatar can access the Big Red Button. But though Wade has gained the power to destroy the OASIS, the novel leaves the future of the virtual world ambiguous; Wade's final actions in the book are resurrecting his friends' avatars and then logging out of the OASIS to spend some time in the real world.[1] What is important is not what Wade will ultimately do with the Big Red Button, but the fact that he alone can access it, giving him – the novel's representative of American individualism and ingenuity – unilateral control over both the technological developments and the global economy of the OASIS. After a supposedly global contest for the future of the OASIS, Wade's win restores the notion of American omnipotence that seemed, at the time of the novel's publication, to be in jeopardy.

Expanding Techno-Orientalism

With its 2011 publication, *Ready Player One* appeared at a moment when the U.S. economy was failing, leading to fears of replicating the decades-long recession in Japan. A sampling of headlines from the years of the U.S. recession includes: "Is the U.S. Economy

Turning Japanese?" (*Forbes*), "Are We the Next Japan?" (CNN), "Is the U.S. Headed for Japanese Style Stagnation?" (Brookings Institution). As these headlines indicate, the specter of Japan has lingered in the United States long after the Japanese bubble burst.

But what about the rest of rising Asia? *Ready Player One* gives no indication of geo-political reorganization in 2045, so it seems a safe assumption that all Asian countries still exist, yet no Asian countries besides Japan are mentioned in the text. Daito/Toshiro and Shoto/Akihide's characterizations are specific to Japanese history and society and carry with them specific stakes for the U.S. imagination of Japan. But by the time the novel was written, China was considered a much greater economic threat to the United States than Japan, a trend that has only increased over the intervening years. Why, then, is Cline's novel is so invested in the past economic competition between the U.S. and Japan, rather than the current and probable future competition between the U.S. and China?

Part of the reason for the novel's focus on Japan is surely the place that Japan – and, specifically, 1980s Japan – holds in both the science-fictional and video gaming imaginary. Both the novel itself and the quest that drives its plot are exercises in 1980s nostalgia, and it would be difficult (if not impossible) to write about gaming in the 1980s without writing about Japan. But even as the novel is self-aware about its interest in nostalgia, it simply replicates the stereotyping of Japan and the Japanese that was so typical of 1980s science fiction, rather than challenging it. Beyond replicating these cultural stereotypes, the novel re-writes a narrative of the 1980s, deemphasizing Japan's major contributions to gaming, just as it deemphasizes its Japanese characters. The novel takes a period of global economic tension between the U.S. and Japan and recasts it as one of U.S. control, recentering the narrative of the 1980s as the pop cultural

memories of one powerful white American man, who leaves clues that can only be fully deciphered by another white American man.

In this way, the novel poses Japan not as a diversion from current uncertainties about U.S.-Asian competition, but as a stand-in for China and its growing economic threat. Even though it's far from certain how Japan's economy will develop in the future, Cline portrays Japan as a threat that has been contained, thus modeling a future in which American individualism wins out over Asian collectivism. While China and other emerging Asian economies have different cultural and economic histories than Japan, the novel's overarching geopolitical argument remains the same: U.S. innovation, personified by the white male console cowboy, will always come out on top. The headlines may fear that the United States is headed for Japan's fate, but *Ready Player One* assures its reader that the United States is exceptional, and that that exceptionalism will ultimately triumph over not only Japan but also, by extension, the rest of rising Asia.

Note

1. The ending of the 2018 film is not nearly as ambiguous as the novel, with Wade making the decision to close the OASIS for two days each week in an attempt to curtail its influence and encourage its users to interact with the real world. In the film, Wade also decides to share control over the OASIS with Aech, Art3mis, Shoto (named Sho in the movie), and Daito (who, in another change, does not get killed); in the novel, he shares the financial inheritance but retains sole power over the OASIS.

Interlude: Crispr

In November 2018, a pair of twin girls – known by the pseudonyms Lulu and Nana – were born in Shenzhen, China. The world learned of their birth with a four-minute and forty-three second video, posted on YouTube on November 25th by the He Lab. The video shows a Chinese man in young middle-age – the now-disgraced scientist He Jiankui – wearing a light-blue button up, neatly pressed, a wedding ring visible on his left ring finger. He is sharply in focus against a slightly out-of-focus background, one with bottles and boxes and machines clearly meant to represent Science, with a capital S.

"Two beautiful little Chinese girls named Lulu and Nana came crying into the world as healthy as any other babies a few weeks ago," he says in English at the start of the video, his words displayed as subtitles in both English and Chinese at the bottom of the screen. He goes on to describe the twins' parents, Grace and Mark – both names, also, presumably pseudonyms – and how Grace underwent IVF, just with, as He puts it, one difference: right after fertilizing the egg, the scientists also "sent in a little bit of protein and instructions for a gene surgery." The reason for this gene surgery? To, in He's words, remove the "doorway" for an HIV infection; in other words, the team removed the gene that is susceptible to HIV, making it impossible for Lulu and Nana to ever contract the virus. He explains that he knows his work will be controversial, but emphasizes that he only means for this technology to be used to reduce suffering, both for the future children and also for the parents. "As a father of two girls," he says, in a clear bid to humanize both himself and the project, "I can't think of a gift more beautiful and wholesome for society than giving another couple a chance to start a loving family" ("About Lulu and Nana").

In this five-minute video, He pointedly never says the word "CRISPR," instead referring to the process as sending in a "little bit" of protein, trying to make the process of gene editing sound as natural and non-invasive as possible. And CRISPR, despite its science-fictional connotations, is natural: it describes a naturally-occurring gene-editing system found in bacteria and other microorganisms and used as an immune response. Discovered by the Spanish microbiologist Francisco Mojica in the 1990s, CRISPR stands for Clustered Regularly Interspersed Short Palindromic Repeats – DNA sequences that repeat exactly, with "spacer" DNA sequences in between. Mojica found that when bacteria were infected by a virus, the bacteria that survived replicated the virus exactly as a new spacer DNA; then, if the bacteria were threatened by the virus again, it used that new spacer DNA to create an RNA specific only to that virus. The RNA then guided a nuclease – a protein that can cut DNA – to the viral DNA to cut it, protecting the bacteria against the virus ("CRISPR").

It was in 2012 that the true potential of CRISPR became clear, when American biochemist Jennifer Doudna and French microbiologist Emmanuelle Charpentier published a paper in *Science*, suggesting for the first time that CRISPR could offer "considerable potential for gene-targeting and gene-editing applications" (Jinek 820). In the paper, Doudna and Charpentier and their team isolated the components of the CRISPR system, along with the CRISPR-associated protein (Cas) called Cas9, adapted them to function in a test tube, and demonstrated that the resulting system could be used to cut specific sites in DNA, creating a kind of "genetic scissors" (Ledford and Callaway). In other words, it was Doudna and Charpentier who transformed CRISPR from an observation about bacteria to a tool, one with wide-ranging

applications, from agriculture and livestock to industrial chemical production to medicine – to editing not just the genes of corn and soy, but the human body.

Understandable. Merciful. Safe. Healthy. Human. This was how He tried to portray his team's work in that YouTube video.

But as more information about He's experiment emerged, so did a host of ethical problems. First, the gene-editing was not necessary to prevent or treat HIV in Lulu and Nana; their father was HIV-positive, but neither of the twins had HIV. It was not necessary to use gene-editing to block the gene, CCR_5, that HIV uses as a doorway; CCR_5 inhibitors are a class of antiretroviral drugs that block the activity of the CCR_5 gene – the FDA approved the first CCR_5 inhibitor in August 2007. And, deactivating CCR_5 increases vulnerability to other diseases: West Nile Virus and Japanese encephalitis (Kolata and Belluck). In addition, it appears that the actual gene-editing itself was done poorly; both babies, for example, have a combination of cells with and without edits – called mosaicism – which means they probably don't have increased resistance to HIV after all (Chen). And even if the gene-editing had worked, CRISPR can cause unintended mutations in genes other than the targeted gene. The process of gene-editing would typically move much more slowly and deliberately, beginning with testing the gene-editing on animals; instead, He made Lulu and Nana into the test subjects from the get-go (Yong).

Along with these questions of efficacy and safety, there appear to be questions about whether He actually got informed consent from Lulu and Nana's parents, who had volunteered for what they believed to be a project developing an AIDS vaccine, not one concerned with gene-editing. He did supply a consent document, but it described CRISPR and gene-editing in highly technical language that would make it difficult for the subjects to fully understand what

they were consenting to; the consent document was also more focused on the business agreement between He and the subjects than on explaining the risks and drawbacks of the procedure. For example, it neglected to mention the risks of deactivating CCR_5 – the increased vulnerability to other diseases – but gave He's team the rights to use images of the babies in magazines, calendars, billboards, product packaging, and posters (Yong).

Even amidst all of these ethical problems, what truly set He's work apart was his use of human embryos. There are two types of genome editing: germline and somatic. A somatic cell is any cell in the body except for reproductive cells: skin, hair, blood, organs. Editing a somatic cell affects that person's body alone; the changes are not heritable. So, for example, studies are underway to use CRISPR to correct genetic defects that cause sickle cell disease; those genetic changes would cure sickle cell in the individual, but the correction would not be passed on to the individual's offspring. In contrast, germline editing targets germ cells (the egg and sperm) or the embryo; germline editing is heritable – future generations will all carry the mutation. In other words, germline editing is a permanent change that cannot be undone unless future carriers either don't have children themselves or undergo genetic editing to reverse the mutation. Objections to germline editing include the question of consent (future, unborn generations cannot consent to having their genes edited in the present day), as well as concerns about the accuracy of germline editing and the permanence of unintended mutations and consequences (since genes interact with other genes to perform functions, there is no way to know what unintended changes a single edit could cause) (Heggie).

But, by far, the biggest objection to germline editing is the fear of "designer babies" – children whose genes have been modified to control aspects such as height, hair color, eye color, memory, intelligence. Who will be able to access – and afford – this technology? What kind of

changes will they make? What kind of human will they think is the ideal? Not to mention the even more dystopian possibilities of super soldiers – humans who have been genetically-modified to have extra strength and speed, to sharpen their senses, to feel no pain or fear. For now, the anxiety around designer babies is hypothetical; the technology is nowhere near being able to produce such specific effects, and many of the most desirable traits – intelligence, creativity, even athleticism – are due to a combination of uncontrollable factors beyond genetics. But still, the term designer babies has become a kind of shorthand for the fears of where gene-editing technologies like CRISPR might lead.

No nation in the world explicitly allows for a gene-edited embryo to be used in pregnancy. Beyond that, the rules get murkier, with regulations on genome editing varying from country to country. In 2020, a team of researchers surveyed the policy documents of 106 countries (out of the world's 195 total). Looking at somatic genome editing, only 40 of the 106 nations had specific policies, with 23 nations prohibiting the research and 11 permitting it. But when looking at heritable genome editing, 78 of the 106 nations had specific policies, with 70 nations prohibiting it entirely, five prohibiting it with possible exceptions, and three which were indeterminate (meaning the policy documents mention heritable genome editing but are unclear on its permissibility or impermissibility) (Bayliss 371, 368). Importantly, both the United States and China permit somatic genome editing and prohibit heritable genome editing.

Heritable genome editing is an issue that affects all of humanity – it is not a nation-by-nation question. And yet, so far, it has been treated this way. In March of 2019, following He's announcement, an international group of 18 scientists – including Charpentier, who co-wrote the the original grounbreaking article about CRISPR's applications in 2012 – called for an international moratorium on heritable genome editing. The paper, published in *Nature*, called for

a global moratorium for an initial period of time – possibly five years – during which time an international framework would be established. The framework would call for nations to voluntarily commit not to approve any use of clinical heritable genome editing unless specific conditions are met. Still, even in this call for international cooperation, the paper's authors place national sovereignty front and center: they are clear that countries would retain "the right to make their own decisions" and write that after the moratorium period has expired "nations may choose to follow separate paths" (165). While their call for a global moratorium was provocative – and received much news coverage, especially in the wake of He's scandal – the details are vague, and rely on a "broad societal consensus in the nation" in question, "something that must be judged by national authorities, just as governments make judgments about their citizens' views on other complex social issues" (168). The paper places an ultimate faith in each nation's willingness and ability to reach a social consensus. But even assuming each nation were to fully listen and perfectly represent its constituents' views on germline editing and reach a single, unified societal consensus in that country: what happens when nations come to different societal consensuses?

The future of germline editing is not just an ethical or a scientific dilemma; it's also a geopolitical one, with high-stakes implications for agriculture, health care, the overall economy, and, also, questions of national security ranging from the development of super soldiers to bioterrorism. In 2016 – three years before He's announcement – the U.S.'s Director of National Intelligence James R. Clapper testified to the Senate Armed Services Committee that genome editing had become a global danger, including it alongside North Korea's development of nuclear weapons, China's modernization of its nuclear missile force, Russia's development of a

ground-launched cruise missile, and chemical warfare in Syria and Iraq in the section on weapons of mass destruction in his Worldwide Threat Assessment report (7-9). Though he doesn't name any specific nations as threats, Clapper draws a pointed distinction between the West and the rest of the world: "Research in genome editing conducted by countries with different regulatory or ethical standards than those of Western countries probably increases the risk of the creation of potentially harmful biological agents or products," Clapper wrote (9).

At the time of the He scandal in 2019, the U.S. was leading CRISPR research, but China was fast catching up. In 2012, the year researchers realized that CRISPR could be used as a tool for genome engineering, there were 127 mentions of CRISPR in scientific publications; by 2019, there were more than 14,000 publications mentioning CRISPR. Of those publications, 2,967 came from the U.S. and 2,059 came from China. In 2018 alone, 898 papers came from the U.S. and 824 from China; the next countries in line, Japan and Germany, published 228 and 197 papers, respectively. The U.S. and China similarly lead the race for patents involving CRISPR: as of December 2018, the U.S. had 872 patent applications, and China had 858, and already dominated the U.S. in patents for agricultural and industrial applications of the technology. Again, patent applications from every other country were negligible in comparison; all of Europe had 186 (Cohen).

He's use of germline editing on Lulu and Nana was unethical, certainly. But it also provided a convenient narrative for the U.S., creating the ideal villain in the form of a Chinese scientist who emblematized the danger of the Chinese push into biotechnology. "In China, Gene-Edited Babies Are the Latest in a String of Ethical Dilemmas" read a *New York Times* headline (Wee "In China"); "How a Chinese Scientist Broke the Rules to Create the First Gene-Edited Babies" read a headline in the *Wall Street Journal*, with a subhead notably claiming that He was

"seeking glory for his nation" (Rana). In the countless news stories about He's announcement, much was made of his personal history as the son of rice farmers who went on to earn a PhD from Rice University and a postdoc at Stanford before returning to China to teach and conduct research at the Southern University of Science and Technology as part of the country's Thousand Talents Plan, a recruitment tool that provides high salaries, research funding, and other benefits to both Chinese-born and foreign scientists from abroad.[6] In American media, He was cast as a Chinese patriot, who believed he was serving President Xi Jinping's mission to turn China into "a global scientific and technology power" by 2049 – a year Xi chose to mark the centennial of the Communist revolution that led to the founding of the People's Republic of China (Wee).

It remains unclear whether the Chinese government knew about He's work, and to what extent. But what is clear is that, in the aftermath of the scandal, China sought to portray He as a rogue scientist. The day after his announcement, China suspended He's research, with the vice minister of science and technology Xu Nanping telling state-owned China Central Television that He appeared to have "blatantly violated China's relevant laws and regulations" and broken "the bottom line of morality and ethics that the academic community adheres to." A group of 122 Chinese scientists released a joint statement, describing He's work as "crazy" and calling it a "huge blow to the global reputation and development of Chinese science" (Wee "China Halts").

In December of 2019, a little more than a year after his announcement, He was sentenced to a $430,000 fine and three years in prison for "illegal medical practice" (Cyranoski 154-5).

And still, at the end, there are those two "beautiful little Chinese girls," Lulu and Nana. Little more is known about the now-toddlers; so far, their true identities have remained secret. In

[6] In 2019, a Senate subcommittee declared Chinese recruitment programs, including the Thousand Talents Plan, a threat to U.S. interests and national security ("Threats to the U.S. Research Enterprise").

early 2020, soon after He's trial, China confirmed that a third gene-edited baby had been born, slipping the confirmation into an announcement about his sentence through the state news agency Xinhua, which said that "three genetically edited babies were born" (Osborne). The news wasn't entirely unexpected; at the 2018 conference in Hong Kong where He announced the birth of Lulu and Nana, he had also shared that another woman was pregnant with a gene-edited baby. But many had wondered whether the government would acknowledge the third baby or attempt to downplay it, and, indeed, it took at least six months from the third baby's birth for an official confirmation (the exact date of the birth is unknown, but it was likely in June or July of 2019). Since then, there has been no news about any of the children, though they are undoubtedly being carefully monitored – and will be for the rest of their lives. Who will tell them that their genes have been edited, and when? Will they be allowed to have children of their own, to whom they will pass the mutation?

Lulu and Nana have been many things over the past few years: subjects of experiments, subjects of news stories, subjects of debate, subjects of scandal. But they are also children, with favorite toys and favorite foods, learning how to walk and speak and read, forming their identities with their whole lives ahead of them.

"There will be no question about the morality of gene surgery in twenty to thirty years," He says in a different video posted by his lab to YouTube, in which he compares the criticisms of gene-editing to the critique of IVF in the 1970s ("'Designer Baby'"). It remains to be seen if he is right, if Lulu and Nana are outliers or if they are simply the first in what will someday be a completely normal practice. Two years after scientists called for a global moratorium on heritable genome editing, it still has not been enacted. Soon, Lulu and Nana and the unnamed third child – the world's first CRISPR babies – may not be alone.

Chapter Two: Genre and the Generic Human in *How to Live Safely in a Science Fictional Universe*

In her 2005 book, *Self-Help, Inc.: Makeover Culture in American Life*, the sociologist Micki McGee offers a startling list of statistics showing the prevalence of self-help literature in contemporary American life: from 1991 to 1996, sales of self-help literature rose by 96 percent; in 1998, self-help book sales totaled approximately $581 million; and by 2000, the self-help industry as a whole (including books, seminars, audio and video, and personal coaching) was bringing in $2.48 billion a year. A 1998 Gallup survey showed that one-third to one-half of Americans had bought a self-help book. And from 1972 to 2000, self-help books went from 1.1 percent of the total number of books in print to 2.4 percent – more than doubling their market share (qtd. In McGee 11). McGee argues that this trend arises from specific economic factors, paralleling the trend of wage stagnation and destabilized employment opportunities in the United States (12). She writes: “The less predictable and controllable the life course has become, the more individuals have been urged to chart their own courses, to ‘master’ their destinies, and to make themselves over… In the place of a social safety net, Americans have been offered row upon row of self-help books to boost their spirits and keep them afloat in uncharted economic and social waters” (12).

While self-help books hold out the promise of individual control, the economic data clearly demonstrates that the average American’s economic circumstances are far more subject to systemic rather than individual influence. Just looking at the example of wage stagnation,

from 1979 to 2013, middle-wage American workers' inflation-adjusted wages grew only .2% per year (Mishel et al.).[7] A number of systemic factors account for this widespread wage stagnation, including widening income inequality, globalization, technological advances, declines in real minimum wage and union membership, and decreasing job mobility (Shambaugh et al.). Also responsible is "monopsony power," an economic term for the ability of a company to keep wages low due to lack of competition for workers (Pavlus). As companies gain more power and eliminate competition, they also increase their wage-setting power in the labor market equivalent of a monopoly; meanwhile, measures that would guard against monopsony power – namely, ensuring collective bargaining for workers and raising the minimum wage – have waned as government policy increasingly favors corporate rights over workers' rights (Bahn). This wage stagnation is just one aspect of a larger shift toward economic instability for all but the wealthiest Americans, a shift that can hardly be counteracted through the individual labor and self-making proposed by self-help literature.

Published in 2013, Charles Yu's *How to Live Safely in a Science Fictional Universe* presents itself in the guise of a self-help book, its jaunty title mimicking one of the most famous volumes in the vast genre of self-help literature, Dale Carnegie's *How to Win Friends and Influence People* (1936). The novel is narrated in first-person by a Taiwanese-American man, also named Charles Yu, who works as a "certified network technician for T-Class personal-use chronogrammatical vehicles"; in other words, he is a time machine repairman (5). Set in an unspecified time in the future, the novel takes place primarily in Minor Universe 31 (MU31), which bears some resemblance to contemporary geography (its capital city is NEW ANGELES/LOST TOKYO-2) but is owned by the company Time Warner Time, a division of

[7] The Economic Policy Institute defines a middle-wage worker as someone who earns more than half of the workforce but less than the other half.

Google (59, 66). In the opening pages of the novel, the fictional Charles explains how he came to this line of work; he was studying for a master's degree in "applied science fiction" with the hopes of becoming a structural engineer, but after his father disappeared and his aging mother required increased care, he was forced to put his dreams on hold in order to earn a living (5).

By taking our contemporary situation of individual economic precarity and increasing corporate power to an exaggerated level in this unclear future, Yu foregrounds the question of whether economic mobility – the American Dream – still exists, or whether the American notion of pulling oneself up by one's bootstraps, as encapsulated in self-help literature, is, in fact, pure myth. He further complicates this question by destabilizing the very notion of the individual self; Charles notes that he uses a mini-wormhole generator to open temporary quantum windows into other universes, through which he has seen thirty-nine versions of his alternate selves (thirty-five of whom "seem like total jerks") (10). The main plot of the novel pushes this conceit considerably further: during a routine maintenance trip to NEW ANGELES/LOST TOKYO-2, Charles encounters his own future self, also arriving for a routine maintenance trip. Charles then violates the number one rule of time travel, which is that if you ever see yourself, you should immediately run away; though this rule has been drilled into his head during his training, he panics and shoots his future self instead, fleeing in the time machine, where he will find that his actions have caused him to be stuck in a time loop. In a final, metafictional twist, he can only free himself from the time loop with the help of a book he has written/he writes (depending on his position in the time loop) called *How to Live Safely in a Science Fictional Universe*, pages of which are interspersed with chapters following the current action of the novel.

In this chapter, I argue that *How to Live Safely* subverts the form of the self-help book as a challenge to the larger American mythology of economic individualism that undergirds self-

help literature. By calling attention to the systemic limitations of its near-future society, the novel shows that this American mythos traps its subject in a culture of conformity and rule-following, where one is only trying to survive – to "live safely" – rather than advance. Further, I explore the way self-help literature's emphasis on conformity and mechanization intersects with the specific notion of the model minority myth and pressures of assimilation for Asian immigrants to the U.S. I argue that it is the very act of giving up the commitment to the much-vaunted individual self (through interacting with his own posthuman time-travel double) that allows the fictional Charles to break free of the dehumanizing effects of the corporate-controlled world. I argue that the novel's generic ambiguity challenges both the tropes of science fiction and the tropes of the immigrant narrative, formally underlining the novel's argument against assimilation by refusing to assimilate to either genre.

Lastly, I build on my discussion of the posthuman from Chapter One, showing how Yu offers a vision of the posthuman that is reparative and revolutionary in contrast with Cline's techno-Orientalist stereotyping. I argue that the time-travel double is key to the novel's disruption of the model minority myth, constituting a form of the posthuman that updates the traditionally white, Eurocentric representation of the doppelgänger. Contemporary science fiction has shifted the terrain of the double from an origin that is supernatural or uncanny to a scientific/technological origin: quantum physics, time travel, robotics, and genetics (Mountfort 61). Critic Paul Mountfort calls these contemporary science-fictional doubles "technologized doppelgängers" – or, as I consider them, a subset of the posthuman (61). Mountfort writes: "Time travel, the scientific breakthrough par excellence, constitutes the ultimate threat to the unitary self: the possibility of one or more doubles, each authentic in their own right, but who collectively destabilize the construction of the individual as unique" (67). While the time-travel

double is not often mentioned in posthuman theory, this destabilization of the individual unitary self exemplifies the overall project of posthumanism. Finally, I argue that, in addition to the novel's challenge to both science fiction and the immigrant narrative, the posthuman time-travel double in *How to Live Safely* challenges the rules of both 19th-century doppelgänger narratives and time travel narratives, disrupting their historically white-centered narratives and expanding these literary subgenre's narrative possibilities.

Self-Help Literature and the Myth of the Self-Made Man

In order to situate Yu's subversive take on self-help, it will be useful to give a brief rundown of the long history of the genre of self-help literature and its relationship to the American Dream. From its very beginnings as a genre, self-help literature in America has prioritized the importance of individualism – individual ambition, individual character, individual achievement – and deemphasized the systemic conditions that either aid or stand in the way of economic success. Widely recognized as the first self-help author, Benjamin Franklin first published *The Way to Wealth* (1758), a compilation of borrowed sayings from *Poor Richard's Almanac*, the most famous of which reads: "Early to bed, and early to rise, makes a man healthy, wealthy and wise." In 1791, he published his *Autobiography*, in which he details how he moved "from the poverty and obscurity in which I was born and bred, to a state of affluence and some degree of reputation in the world" (qtd. in Huber 17). Franklin explains that he achieved his enormous move in social mobility through individual virtues: in *Advice to a Young Tradesman*, he emphasizes industry and frugality; in the *Autobiography*, he adds temperance, silence, order, resolution, sincerity, justice, moderation, cleanliness, tranquility, chastity, and humility (Huber 17). As the progenitor of the self-help book, and as the first famous

self-made man in America, Franklin begins the tradition of ignoring externalities – contacts, family influence, family wealth, education, geographic location, and even luck – in favor of a narrative that insists individual effort is all it takes to get ahead financially and socially (Huber 18).

This narrative persists through the nineteenth century and industrialization, in the work of Horatio Alger, Jr. – whose name became synonymous with pulling yourself up by your bootstraps – and William Makepeace Thayer. In the early twentieth century, as the U.S. grappled with the post-Civil War decades and rising populism, the New Thought movement promoted the notion that the individual could master his own destiny simply by mastering his mindset. As inspirational writer Orison Swett Marden wrote in his 1903 volume, *The Young Man Entering Business*: "Morbid thoughts are infinitely greater hindrances to success than opposition from the outside… Bright, cheerful, hopeful thoughts, and belief in one's ability to accomplish the thing undertaken, are friends that will insure success to their possessor" (qtd. in Weiss 169-70). Historian Richard Weiss argues that the New Thought was simply a variation of America's by-then traditional "conviction of individual power" (170); while the literature before New Thought attributed economic failure to failings in character, the New Thought simply substituted failings in one's personal mindset. Either way, the same overall message persists: economic success is purely up to the individual's efforts, and, therefore, all individuals have equal access to economic success.

In response to the Great Depression – as clear an indicator of systemic economic failings as could be possibly imagined – a new wave of self-help books insisting on individual responsibility boomed. In 1936, Dale Carnegie published *How to Win Friends and Influence People*, a monumental book in the self-help genre, which introduced 27 rules for success,

including “Six Ways to Make People Like You,” “Twelve Ways to Win People to Your Way of Thinking,” and “Nine Ways to Change People without Giving Offense or Arousing Resentment.” When it was published, unemployment in America was at 16.9 percent, and – with its promises of how to keep or gain a job and climb the corporate ladder – it went on to be one of the best-selling books of all time; to date, it has sold more than 30 million copies (Weisberg).

After a period of postwar prosperity, the 1970s saw double-digit inflation, growing unemployment rates, and the first of the oil shocks (McGee 52). As McGee argues, the self-help books of that era reflect a new social Darwinsim, with titles including Robert J. Ringer’s *Looking Out for Number One* (1977) and Michael Korda’s *Power! How to Get It, How to Use It* (1975) (52). In the 1980s, 1970s social Darwinism gave way to self-help books focused on surviving a competitive economy, with books like Harvey B. Mackay’s *Swim with the Sharks Without Being Eaten Alive* (1988). The late 1980s and 1990s saw a rash of corporate downsizing – 3.5 million workers lost their jobs between 1987 and 1997 – disrupting long-held assumptions about cradle-to-grave job security (“Downsizing”). In this changing job landscape, Spencer Johnson’s *Who Moved My Cheese?* (1998), a parable preaching the need for individual adaptability, became a *New York Times* bestseller and remained on the bestseller list for almost five years, selling more than 26 million copies worldwide. Even at the end of the 20th century, more than 200 years after Benjamin Franklin, the myth of individualism still persisted.

As historian Richard M. Huber explains in *The American Idea of Success*, there was a political motivation for this insistence on American individualism and equal opportunity, which provided a counter-narrative to European aristocracy and entrenched wealth and social hierarchies (34). The exceptionalism of American individualism appears throughout self-help rhetoric over the centuries. In 1843, William H. McGuffey – the author of a series of extremely

popular children's guides to behavior – wrote: "The road to wealth, to honor, to usefulness, and happiness, is open to all, and all who will, may enter upon it with the almost certain prospect of success. In this free community, there are no privileged orders. Every man finds his level" (qtd. in Weiss 33). In 1928, as he accepted the Republican nomination for the presidency, Herbert Hoover invoked similar rhetoric: "This ideal of individualism based upon equal opportunity to every citizen is the negation of socialism" (qtd. in Huber 210). As these quotes make clear, self-help literature has always been invested not only in promoting the myth of the self-made man, but also another myth that underlies it: the myth of equal opportunity.

Still, even as it preaches individualism, what self-help literature really does is to provide a model and a guide to conform the reader to societal expectations and maintaining the status quo. McGee argues:

> In these labors that are purported to be labors of self-creation, the exercises provided are actually most effective not for the creation of newly invented selves but rather for the maintenance of existing notions of the self and its relation to the social and political worlds. Rather than authoring or inventing a new sort of self, these literatures tend to ensure that no one steps too far outside either the self-help genre or the generic lives it fosters. (162)

As McGee points out, self-help books never ask the reader to imagine a life lived outside of capitalism, nor prompt the reader to consider a life in which systemic racism, sexism, and other forms of discrimination are no longer underlying structures of American society (160). Instead, self-help literature only directs the reader on how to function within these pernicious structures, offering guidance based on the false premise of equal opportunity. Even as self-help books promote the notion of individual striving, they push the reader to conform to the goals and

standards of success that support capitalism, rather than to question, first, if those goals are truly attainable for all, and second, if they are truly worthwhile. This demand for conformity has particular resonance for Asian Americans, who have been forced into the myth of the model minority and applauded for their supposedly successful assimilation to white culture. It is in this context that we can read Yu's novel not only as a subversion of the self-help genre and a dismantling of the false promise of the American Dream, but also as a call – and, in fact, a how-to guide – for breaking free of the dominant ideologies of late capitalism and racial assimilation.

Subverting Self-Help, or How to Break Free of the Model Minority

From its very first pages, *How to Live Safely* foregrounds the way the individual becomes trapped in an economic system in which he has little – if any – room for social or economic mobility. At the beginning of the novel, Yu presents not only epigraphs and prologue, but also a chronodiegetical schematic and a series of instructions for using a time machine: "**ENTER THE FOLLOWING PERSONAL DATA** / (CURRENT CHRONOLOGICAL AGE) / (DESIRED AGE) / (AGE YOU WERE WHEN YOU LAST SAW YOUR FATHER) / Computing. Trajectory locked" (np). This final line – "trajectory locked" – may seem to refer only to the flight path of the time machine, but the idea of the fixed path also foreshadows the novel's concerns about the agency of the individual in late capitalism. According to the *OED*, one of the definitions of "trajectory" reads: "The path of any body moving under the action of given forces" (np). In other words, the body – whether a planet, a time machine, or an individual – does not move purely independently, but is subject to the constraints of outside entities, with the word "locked" emphasizing just how inflexible that path is. With this front matter, the novel

immediately undercuts the notions historically forwarded by self-help literature of individual agency in determining one's economic and social class.

The fictional Charles begins the novel resigned to working within the economic system of Minor Universe 31, with the first sentences of the novel physically reinforcing the sense of economic entrapment. The novel begins with Charles describing his circumstances as a time machine repairman: "There is just enough space inside here for one person to live indefinitely, or at least that's what the operation manual says. *User can survive inside the TM-31 Recreational Time Travel Device, in isolation, for an indefinite period of time*" (3). In these opening sentences, the novel foregrounds several key aspects of life for a worker in this future, all of which reflect on our contemporary economic system: the notion that there is "just enough" space; the emphasis on survival rather than advancement; and, finally, the depersonalizing – and dehumanizing – effects of late capitalism, reflected in the transition from personhood to "User" and Charles's resulting isolation.

In positing a near-future in which corporations can build and operate entire universes, the novel satirizes the inability (or unwillingness) of the U.S. government to counteract the power of the corporation, hypothesizing an exaggerated future scenario that further disempowers the individual worker. While it seems that the United States may still exist in some changed form, the present action of the novel takes place almost entirely within Minor Universe 31, owned by Time Warner Time, a division of Google (66). Minor Universe 31, the novel explains, "provides an ideal environment for corporate operators to test out new ideas, allowing them to proliferate without worry of what will happen to the generally expendable, low-self-esteem human population within the space" (67). With this matter-of-fact description of outsize corporate power, the novel dispenses with the self-help genre's typical assumption that the corporate world

is, in fact, navigable, if only the worker has the right mindset. The exaggerated world of *How to Live Safely* makes clear that no self-help literature will be enough to counteract the corporation's disempowerment of the individual – not in this near-future, nor in our contemporary present.

While the novel begins by looking at the general situation of the disempowered worker, it complicates its story by adding the background that Charles is a first-generation Taiwanese-American, whose parents emigrated from Taiwan before he was born. Charles recounts: "My father had originally come from a faraway country, a part of reality, a tiny island in the ocean, a different part of the planet, really, a different time, where people still farmed with water buffalo and believed that stories, like life, were all straight lines of chronology" (70). In this description, Taiwan – the country is never identified by name, but clearly alluded to – is aligned with "reality." The United States, in contrast, is not reality, at least not for the immigrants who struggle to understand its societal rules. Thinking about his father's habit of speaking quietly, Charles recalls: "It was a survival strategy for a recent immigrant to a new continent of opportunity, a land of possibility, to the science fictional area where he had come, on scholarship, with nothing to his name but a green suitcase…" (71). With this move, the novel shifts the reader's understanding of the "science fictional universe" of the title; the phrase refers not only to the fictional MU-31, but also to the present-day United States.

The novel thus reflects on not only the myth of the American Dream in general, but the specific challenges it represents for Asian Americans, who occupy a liminal space in American society. A section of the interpolated self-help book, written by Charles's future self, explains the socioeconomics of the so-called science fictional universe that is the United States: "Despite improvement in recent years, successful transition into the SF zone remains difficult to achieve for many immigrant families, and even after decades of an earnest and often desperate striving

for acceptance and assimilation, many remain in the lower-middle reaches of the zone, along the border between SF and 'reality'" (78). Held up as the "model minority," Asian Americans are the highest-income and best-educated racial group in the United States; they are also the most likely of any major racial or ethnic group to live in racially mixed neighborhoods and to marry people of a different race ("The Rise of Asian Americans"). But despite these markers of assimilation, Asian Americans still face anti-Asian racism and job discrimination. In 2005, executive coach Jane Hyun coined the term "bamboo ceiling" to describe the noticeable lack of Asian Americans in corporate leadership positions. A 2011 study by the Center for Talent Innovation showed that, while Asian Americans made up five percent of the population, they accounted for only 1.4 percent of *Fortune* 500 CEOs and 1.9 percent of corporate officers; 63 percent of Asian men reported feeling stalled in their careers, a higher rate than Black, Hispanic, or Caucasian men reported (Mundy).

The 20th-century myth of the model minority aligns closely with the long-held American myth of the self-made man, with both emphasizing the need for self-reliance and individual achievement, as opposed to societal supports. As David Palumbo-Liu explains:

> In much the same way that the model minority myth worked to place the responsibility for the minority subject's success or failure squarely within his or her personal 'capabilities,' so the logic of model minority discourse argues that an inward adjustment is necessary for the suture of the ethnic subject into an optimal position with the dominant culture. In both cases the sociopolitical apparatuses that perpetuate material differences remain unchallenged and sometimes even fortified. (397)

Just as the myth of the self-made man has been used throughout American history to bolster capitalism and competition and quell the desire for more equitable government policies, the myth

of the model minority has been used throughout the late 20th and early 21st century to promote a narrative of economic opportunity and mobility for racial minorities that emphasizes individual effort and ignores systemic obstacles. By focusing on the success of Asian Americans at assimilating to the U.S. economy, the model minority narrative falsely shifts the blame for other minorities' poverty; rather than addressing the systemic racism that prevents racial minorities from achieving upward mobility, the model minority myth reinforces the prevailing American ideal that the responsibility lies solely in the individual (Guo).

In addition to creating a wedge between Asian Americans and other racial minorities, the model minority myth homogenizes Asian Americans, suggesting they are a monolithic group despite their diverse cultural backgrounds and nationalities. According to Palumbo-Liu, "the 'myth' of Asian American success took hold only because it suppressed specific differences in the material histories and contemporary realities of many different Asian groups in America and foregrounded the rise of certain Asians…while ignoring the continued struggles of others" (396). In 2016, Asian Americans were the most economically divided racial or ethnic group in the country, with Asian Americans in the top tenth percentile earning 10.7 times as much as those in the bottom tenth percentile; income inequality among Asian Americans nearly doubled from 1970 to 2016 (Hassan). From 2000 to 2016, the number of Asian Americans living in poverty grew by 44 percent, from 170,000 to 245,000 (Hassan). As I quoted earlier in the chapter, McGee argues that self-help literatures "tend to ensure that no one steps too far outside either the self-help genre or the generic lives it fosters" (162); the model minority myth functions similarly, forwarding the image of a generic Asian American as industrious and rule-abiding, creating a narrative that not only falsely homogenizes this disparate group, but also sets a model for immigrant and minority behavior that reinforces capitalist systems and values.

Told in a long flashback toward the end of the novel, the story of Charles' father's attempts to build and market a time machine illustrates the difficulties of achieving full assimilation – and full economic success. In the present action of the novel, Charles takes his time machine to visit a specific day from his past: when he was seventeen and his father was forty-eight, and they were going to a park to meet the director of research at the Institute of Conceptual Technology, who is interested in Charles' father's time machine prototype. This day, Charles says, is the best day of his father's life, but now that Charles is viewing it from his position in the future, he sees it differently:

> We aren't like the director. This man is someone for whom the world isn't a mystery. The world is a boulder, but it has levers and he knows when and where and how to apply just the right amount of force, and it moves for him, while my father and I, pushing up against it, don't have any angle, any torque, no grip or traction or leverage. My father thinks success must be in direct proportion to effort exerted. He doesn't know where or how to exert the least amount for the most gain, doesn't know where the secret buttons are, the hidden doors, the golden keys…The world has always felt just out of his reach. (175)

The father's belief about success – that it corresponds directly to individual effort – tracks exactly to the premise of self-help literature. Even as Charles's father has bought into the vision of the American Dream promoted by self-help literature, he cannot achieve full success in America because this version of the American Dream does not tell the whole story – it leaves out the "secret buttons, the hidden doors, the golden keys" and instead holds out the false promise that success is fully within the individual's control.

The failure of the father's time machine prototype reveals the difficulty of achieving social and economic mobility, and the false promise of self-help literature in gaining that

mobility. As his father is about to test the machine, Charles somehow already knows it will fail, and he realizes how small his father is – physically, but, of course, metaphorically as well: "the smallness of his hand, of his entire height, just hit me, the image of him looking like an immigrant…a small man with a small hand in a large foreign country" (184). Even after years of living in the United States, the father still appears – at least to his son – as an immigrant, his foreignness thrown into relief in this moment when he is attempting to rise out of that social station. As Charles predicts, the demonstration fails. But his father doesn't lose hope, continuing to strive for elusive success: "And yet my father will never stop trying, my father will go on for years after this day, thinking that if he just reads another book, just figures out the key, the secret, the world, the world of science fiction with its promise and possibility, will open up to him, to us, for us" (175). Not only will the father keep striving, but he will keep striving by looking for answers in self-help books, further emphasizing not only the futility but also the misleading nature of self-help literature. Remembering his father's study, Charles describes his books:

> I can see how they were, collectively, a bibliography of a career in striving, in aiming, in seeking to understand the world. My father searched for systems of thought, for patterns, rules, even instructions. Fake religions, real religions. How-to books. *Turn Three Thousand into Half a Million*. Turn half a million into ten. *Conquer Your Weakness*. Conquer yourself. *Inventory of Your Soul*. Take an inventory of your own failings…books that diagrammed the self as a fixable lemon, self as a challenge in mechanics, self as an exercise in bullet points, self as a collection of traits to be altered, self as a DIY project. Self as a kind of problem to be solved. (38)

These are not real self-help titles, but they might as well be – they sound perfectly plausible. And, as with real self-help literature, they emphasize the responsibility of the individual: conquer

your weakness, inventory of *your* soul. But as Yu demonstrates, for an immigrant family whose selves are already considered out of place by their new country, this fixation on improving and optimizing the self is not only economically misleading but psychologically damaging.

By the time the present action of the novel begins, both of Charles' parents have given up on striving for the American Dream, which, in a science-fictional move, translates to both of them giving up on moving forward in time. Charles' mother lives in a 60-minute time-loop of her choosing (the Polchinski 650 Hour-Long Reinforced Time Loop, which is the midmarket offering from Planck-Wheeler Industries); Charles pays for a package that allows her to relive a hypothetical – not an actual – Sunday-night dinner (20). She is therefore able to finally achieve an artificial version of the American Dream, eating dinner with holographs of her husband and son, but only through cashing out ten years of her retirement – and Charles specifies that there is no financial plan for what will happen after that money runs out. Meanwhile, Charles' father has disappeared, and it turns out that he, too, has become trapped in a moment in the past because his time machine broke down and stranded him there (232). For his part, at the beginning of the novel, Charles is not exactly trapped, but rather in a self-imposed isolation in the TM-31, where he, too, lives nonchronologically (26). After years of striving for the American Dream, they have each opted out of forward progress. These science-fictional conceits act as metaphors for the economic and societal stasis the family has found itself in, and for their material and psychological resignation.

It is only through breaking the rules of the science-fictional universe that Charles is able to regain agency and progress, with the implication that he will also save his parents from their separate, delimited lives. The plotting that leads to this rule-breaking is complicated but crucial. After being called in for a time machine repair, Charles encounters his future self. The "number

one rule" of time machine repair is: "If you ever see yourself coming out of a time machine, run. Run away as fast as you can. Don't stop. Don't try to talk…It's rule number one, and it is drilled into you on the first day of training" (19). But rather than following this most important rule, Charles panics and shoots the other Charles in the stomach with his corporate-issued weapon before fleeing in the time machine. Once present-Charles shoots his future self, he enters into a time loop, but before he leaves, the now-wounded future-Charles tells present-Charles: "'It's all in the book. The book is the key'" (89). When present-Charles enters the time machine, there is now a book on the console, titled *How to Live Safely in a Science Fictional Universe*, which Charles describes as "part engineering field manual and part autobiography" (102) – in other words, a self-help book. His future self has left him a note: "Read this book. Then write it. Your life depends on it" (103). Present-Charles goes through the process of reading and simultaneously writing the book (the text appears as he reads), but it turns out the text itself is not the key that future-Charles was referring to. Instead, there is a literal key in the book, in a tiny envelope on page 201; the key opens a hidden panel in a box that Charles' mother gave him when he visited her. The box then reveals a diorama his father made of their kitchen, which include a calendar and a clock – clues that show Charles where his father is, stuck in time. Charles, however, is too late to save his father; the time machine is already at the point in the loop where he faces a confrontation with himself. As the time machine readies for touchdown, Charles considers his options, and he elects to freely and intentionally confront his other self – to allow himself to be shot in the stomach. This freely-made choice causes the doubling to collapse and for Charles to become one actor, who can now move forward in time and save his father.

This series of events challenges the homogenizing effect of self-help literature by recasting Charles as an active creator in writing the instructions for his own life, rather than a

passive reader and follower of instructions. After shooting his future-self, and trapping himself in the time loop, he realizes: “I am a passive observer in this, this record of my own time loop. But why? Why should I be passive?” (115). As Charles takes over, he makes a decision that is “not a good idea” – that does not follow the rules, that is unsafe: he attempts to skip to the end of the book, sending him on a “noncomputable path” (116, 119). By breaking the number-one rule of Minor Universe 31, and then continuing to break the rules of the time loop he finds himself in, Charles defies both the corporate controlled narrative that attempts to homogenize and disempower its citizens and the image of the Asian as rule-abiding model minority. These rules are seemingly meant to keep him safe, but in fact, they do nothing but entrap him, keeping him stuck in isolation as a time-machine repairman – a dehumanized cog in the corporate machine. While breaking the rule initially causes a more severe problem – sending him into a fixed time loop – it ultimately enables his liberation.

Posthumanism and the Time-Travel Double

The time-travel double is crucial to this liberation, acting as a posthuman figure who destabilizes the notion of the Western liberal humanist subject as an individual self. The doppelgänger has long been a literary trope that prompts questioning of individuality and of the exceptionality of the singular human subject; however, these older doppelgänger narratives typically represent the double as a supernatural or psychological phenomenon. Yu updates the traditional doppelgänger narrative, making the double a physical – not psychological – being, one who decenters the fictional Charles’s identification as a self-contained, singular Western liberal humanist subject – he accepts that there are two of him operating in the world, with the possibility of ever more duplication.

While *How to Live Safely* is interested in time-travel doubles, this possibility of infinite duplication also calls up the definitively posthuman territory of cloning narratives. In a comparison of 19th-century double narratives and contemporary science fictional clone narratives, Amit Marcus writes: "Both double narratives and clone narratives jeopardize the idea of a unified and coherent subject and dissolve the differences between oneself and the other" (368). He explains that both the 19th-century double and the contemporary clone "foreground the nightmare of the loss of individuality…[they] challenge the Western conception of a separate and coherent self and the derived conceptions of moral agency and moral responsibility" (389). Still, Marcus concludes that – unlike contemporary clone narratives which can "(re)present alternative models of (post)human subjectivity" – 19th-century double narratives "do not usually promise a new and better form of subjectivity" (390). In the 19th-century double narrative, the double typically signifies "instability, insanity, and ultimately even death both for the self and the other-as-double. In other words, the fragmentary self in such narratives cannot generate a complex unity, in which each of the fragments becomes a part of the whole, intricately connected to the other parts" (390). But even if, as Marcus claims, the 19th-century double narrative does not offer a new form of posthuman subjectivity, Yu's 21st-century double narrative stands in marked contrast to Marcus's description of typical 19th-centry double story. The fictional Charles is not unstable or insane, and, by confronting seemingly certain death at the hands of his double, he is in fact able not only to live but to finally move forward in time. It is by breaking the ingrained narrative rules of the traditionally Eurocentric, white, 19th-century doppelgänger story that the Taiwanese-American, contemporary/near-future Charles is able to free himself; in other words, in *How to Live Safely*, these narrative rules do not apply.

In her 1993 volume, *Reading Asian American Literature: From Necessity to Extravagance*, Sau-ling Cynthia Wong further complicates our understanding of the classic 19th-century doppelgänger by contending that traditional concepts of the double do not fully account for the way the double is deployed in Asian American literature (78). Wong challenges the notion that theories of the double are universal, arguing that the double must take a specific, concrete form in literature, and that that concrete form is "conditioned by complex, interacting material forces" and represented as an interpersonal conflict that is "embedded in sociohistorical particulars" (85). For marginalized groups – including but not limited to Asian Americans – the terms surrounding the doppelgänger are fraught: personality, the self, society, civilization. Wong notes a recurring pattern in the treatment of the double in Asian American literature, in which a "highly assimilated American-born Asian is troubled by a version of himself/herself that serves as a reminder of disowned Asian descent"; she calls this subtype of the double the "racial shadow," which provokes both revulsion and sympathy from the protagonist (93).

But in *How to Live Safely*, Yu casts the posthuman doppelgänger not as an antagonist, nor as a racial shadow, but as a benevolent force, who gives present-day Charles the crucial piece of information – "The book is the key" – that he needs to liberate himself and regain personal agency (89). In the end, it is this disruption of the Western liberal humanist subject that offers a new path forward. Far from being a menace, the posthuman double is itself a kind of key, one that unlocks the trapped life Charles leads. By embracing his doppelgänger, rather than fleeing in fear and repulsion, Charles challenges the rules of both the late-capitalist universe he lives in and of the typical doppelgänger narrative.

“Regenreing” Asian American Literature and Science Fiction

In this chapter, I have so far looked primarily at the way *How to Live Safely* subverts the genre of self-help to illustrate its argument against the American Dream and its insistence on individual striving and assimilation to dominant norms. In this section, I expand my examination of genre in *How to Live Safely*, considering its relationship to both Asian American literature (in the form of the immigrant novel) and science fiction. “I don’t feel like a science fiction writer,” Yu said in a 2017 interview, “and I’m saying this as someone who reads science fiction…if you do claim that for yourself, it becomes sort of a responsibility because it carries expectations with it” (Yu 7-8). In the same interview, Yu is asked how he situates his work in the context of Asian American literature: “I’ve been somewhat shy about actually introducing Asian American aspects into my work explicitly. It often is sort of hidden or feels a little bit *muffled* for some reason, and yet it’s emerging in ways that I think I don’t have real access to. So racial identity might be showing in ways that I never really explicitly intended” (Yu 11). Of course, an author is not always the arbiter of their own work’s genre classification, but still, Yu rightly points to the generic ambiguity of both *How to Live Safely* and his larger body of work, prompting a number of questions: Is *How to Live Safely* a science fictional novel? Is it Asian American literature? And, more importantly, how does its generic ambiguity further its project of destabilizing the American Dream and its underlying conformist agenda?

Before looking specifically at the way the genres of the immigrant novel and science fiction function in *How to Live Safely*, it is useful to first consider the broader question of genre and its relationship to minority – and specifically Asian American – narratives. In her book, *Contesting Genres in Contemporary Asian American Fiction*, Betsy Huang draws a comparison between the imperatives of genre and the resulting “genericized narratives” of Asian Americans

in both immigrant fiction and science fiction (7).[8] Huang argues that recent Asian American work in both genres contests the clichés and stereotypes of Asian American representation by contesting generic tropes: in immigrant fiction, the trope of mimetic writing that assumes the story is grounded in autobiographical experience; in science fiction, the tropes of extraterrestrial aliens, robots, and dystopian futures (8, 9). Importantly, these narratives do recognizably operate within the genres that they seek to redefine. But at the same time that they offer identifiable aspects of genre, they push against the imperatives of the genre narrative. For example, Huang analyzes Ted Chiang's "Story of Your Life," a novella that follows the arrival of extraterrestrial aliens on Earth; the story centers around one of science fiction's most well-trodden narratives, recognizably operating within the genre. However, the story resists the typical generic imperative to create militarized conflict between the aliens and humans, instead offering an alien encounter that defies the Eurocentric, imperialist underpinnings of much first contact fiction (107). As Huang argues, contemporary Asian American fiction like Chiang's thus resists the "assimilationist ideologies of the dominant culture" – on the one hand, the majority white publishing industry for literary fiction, which often demands that the Asian American novel function as synonymous with the autobiographical novel; on the other, the majority white history of science fiction, and its "deeply ingrained Orientalist tropes" (31, 99). For Huang, this reappropriation and retooling of genre leads to an exchange that is "mutually transformative at the aesthetic, political, and epistemological levels" (102).

By blending the genre of self-help with the genre of the immigrant novel and the genre of science fiction, Yu subverts the tropes of each genre, refusing to assimilate to their generic imperatives. In outlining the tropes of the immigrant novel, Huang argues that Asian American

[8] This formulation mirrors McGee's argument about the genre of self-help fostering "generic lives" (162).

authors are “subject to the demands of…the ‘autobiographic imperative,’ an interpretive disposition of readers who habitually read fiction by ethnic authors as autobiography, as testimonies to lived experiences, typically assumed to be those of immigrants” (11); formally, this autobiographic imperative translates to “transparently mimetic forms of life writing” and the “uncritical assumption that an Asian American literary aesthetics must be grounded in personal experience” (8). In addition to Huang’s notion of the “autobiographic imperative,” Lisa Lowe identifies the Asian American master narratives of generational conflict and filial relation (63). Further, Lowe identifies a narrative of development, which she describes as the subject’s “reconciliation to the national social order”; formally, the narrative of development is communicated through a linear, cohesive plot that ends with closure, suggesting that the individual’s assimilation to the dominant culture is a straightforward process (100-101).

How to Live Safely incorporates recognizable aspects of the immigrant novel: the fictional Charles’s parents are immigrants from Taiwan, and one of the central conflicts of the novel is a first-generation/second-generation familial conflict between Charles and his parents. But the novel – centered around a fully functional time-travel machine – is hardly transparently mimetic. Even in the way Yu presents the family’s origins (“My father had originally come from a faraway country, a part of reality, a tiny island in the ocean”), the novel pushes back against an assumption of transparent mimesis; Yu refuses to call the island by name, obscuring its mimetic significance and drawing it into the non-mimetic world of Minor Universe 31. The science-fictional notion of time travel and the time loop also deconstructs the immigrant novel’s trope of the narrative of development; far from a linear progression, *How to Live Safely* moves forward and backward in time, both within the realm of Charles’ memory but also within the literal movements of the plot. In defiance of the linear storyline expected in a narrative of development,

Charles writes: “Chronological living is a kind of lie. That’s why I don’t do it anymore. Existence doesn’t have more meaning in one direction than it does in any other” (22). Formally, the novel reinforces its nonlinear structure by alternating between present-tense narration for the current action and past-tense narration for family memories. The novel ends in present-tense narration, at the moment that Charles has allowed himself to be shot by his doppelgänger; in the novel’s final paragraph, Charles lets the reader know that “it all works out just right,” but he doesn’t elaborate further than explaining that he is okay – he does not die from the gunshot (231). By ending at this climactic moment, the novel offers emotional closure for Charles but resists providing full closure of the plot. Instead, a short appendix – written in second-person, in the form of an instruction manual – alludes to full closure, suggesting that Charles successfully rescues his father, reunites his family, and even proposes marriage to a future partner, implying that he will soon start his own family (232-233). But even as the appendix points to the kind of closure Lowe argues is integral to the immigrant novel’s narrative of development, Yu still resists full closure by distancing the appendix’s narrative through its formal presentation.

In addition to disrupting the narrative of development, *How to Live Safely* similarly challenges the autobiographic imperative, with the novel’s metafictional premise simultaneously inviting and defying the autobiographical readings typical of immigrant, and especially Asian American, fiction. Yu gives his novel’s protagonist and narrator his name and also his family history as the American-born son of Taiwanese immigrants; and yet, the author Charles Yu has not lived in Minor Universe 31, nor has he traveled through time in a physical time machine. By so explicitly drawing comparisons between himself and the book’s narrator, Yu confronts the trope of autobiographical ethnic fiction head-on; in fact, Charles describes the book as “part engineering field manual and part autobiography” (102). Huang argues that autobiography is a

genre that “typically serves the assimilationist ideologies of the dominant culture” (31); autobiographical narratives, she writes, “function as disciplinary instruments for American subject formation and ethnic *reformation*” (31, Huang’s emphasis). But even if we set aside the science-fictional elements of the novel, there is no way to read *How to Live Safely* as a straightforwardly autobiographical narrative. By metafictionally exaggerating the novel’s autobiographical nature, Yu satirizes the autobiographical imperative, subverting its assimilationist ideologies. Combining this metafictional narrative with a science-fictional plot not only further disrupts the autobiographical imperative, but also dismantles its implied vision of a single unified subject who can be assimilated and reformed to dominant American culture.

If the science fictional elements of *How to Live Safely* disrupt the tropes of the immigrant novel, then is the opposite also true? How does the novel challenge the tropes of its other primary genre, science fiction? First, it’s important to note that – despite its generic ambiguity – the novel does meet the widely-agreed upon definition of science fiction as it is centered around the *novum* of time travel. A term pioneered by Suvin, a *novum* is “a totalizing phenomenon or relationship deviating from the author’s and implied reader’s norm of reality”; in science fiction studies, the *novum* is widely accepted as a baseline criterion for inclusion in the genre (64). But, again, the novel’s metafictional self-awareness pushes at the edges of the science fiction genre. From the title of the novel to the naming of Minor Universe 31 to the excerpts of the handbook *How to Live Safely in a Science Fictional Universe* that are interspersed throughout the text, the novel resists science fiction’s typical all-encompassing world-building, always foregrounding its own constructedness.

But this metafictional challenge would be possible regardless of Charles’ race. How, then, does the inclusion of elements of the immigrant novel impact our reading of the novel’s

science fictional world? To answer that, I will focus on the subgenre of time travel narratives, which, as a rule, are focused on white protagonists; from classic narratives such as Mark Twain's *A Connecticut Yankee in King Arthur's Court* (1889) and H.G. Wells's *The Time Machine* (1895) to more contemporary iterations, like the film *Bill & Ted's Excellent Adventure* (1989) and the long-running time-travel-focused television series *Dr. Who*, the protagonists are typically white and male (with the exception of the most recent Doctor, played by the white, female actress Jodie Whittaker).[9] There are logistical reasons for this white dominance: no non-white person could travel even to early 20th-century America or Europe and blend in, let alone the Middle Ages or the Renaissance. As Maya Phillips writes in *The New Yorker*, one of the most prominent flaws of the time-travel narrative is the "racial privilege baked into these stories," which often fall into two categories: a small-scale personal narrative (for example, Audrey Niffenegger's 2003 novel *The Time Traveler's Wife*), in which the white protagonist is "comfortably insulated from a larger racial history," or a conflict so large (the apocalyptic world of the Terminator movies) that "the narrative can easily sweep past issues of race."

Recent science fiction has begun to chip away at the white dominance of time travel. Most well-known, Octavia Butler's *Kindred* (1979) tells the story of Dana, a Black woman who is pulled from her life in 1970s California to the antebellum South; more recently, Netflix released the film "See You Yesterday" (2019), produced by Spike Lee, which follows two modern-day Black teenagers, C.J. and Sebastian, who build a time machine and use it to try to prevent the death of C.J.'s older brother, who is shot by the police. And Ken Liu's 55-page novella "The Man Who Ended History: A Documentary" (2011) follows two Asian-American

[9] Another notable time travel story is the book-cum-television series *Outlander*, which centers on a white, female protagonist, who moves between post-World War II Britain and the Jacobite uprisings of mid-18th-century Scotland; in both the case of Jodie Whittaker's doctor and *Outlander* it has been widely considered generically subversive that the protagonists are female, if still Caucasian.

scientists – one Japanese-American and one Chinese-American – who create a time machine and travel to World War II-era Manchuria to expose war crimes by the Japanese. Still, there remains a clear dearth of time travel stories featuring non-white protagonists, and, because of that absence, a corresponding dearth of time travel stories with racial stakes. *How to Live Safely*, then, contributes to decentering whiteness as the default mode of time-travel storytelling and expanding the subgenre's range of possibilities.

The novel thus performs what Wai Chee Dimock terms "regenreing": taking what appear to be stable and familiar categories and revealing them instead to be a "kinship network…resting always on some kind of fluid continuum" (1380). This regenreing has not just aesthetic stakes, but also sociopolitical ones. In his essay "The Law of Genre," Jacques Derrida argues that attempts to define art by genre take the heterogeneity and complexity of literature and oversimplify it, placing it into strict categories; further, the concept of genre then attempts to make these categories seem natural, rather than unnaturally imposed, as though they are subject to a nonexistent natural law. Derrida writes: "As soon as genre announces itself, one must respect a norm, one must not cross a line of demarcation, one must not risk impurity, anomaly, or monstrosity" (57). As John Frow writes, genres "actively generate and shape knowledge of the world" (2). Strict adherence to generic tropes leads to a narrowing of representation, creating a world in which Asian American authors can only write autobiographical, immigrant narratives, and time travel is a realm restricted to white men. With its refusal to conform to generic tropes – and, in fact, its conscious, playful intermixing of self-help, immigrant narrative, and science fiction – *How to Live Safely* stakes out new territory for both Asian American literature and science fiction and formally underlines the novel's challenge to the generic human fostered by the assimilationist fantasy of the American Dream.

Posthuman Alliances

With its genre-bending, *How to Live Safely* demonstrates a path forward, both for breaking boundaries previously assumed to be fixed and for carving out new narratives of Asian America, of immigration, and of late capitalism. Unlike *Ready Player One*, which replicates contemporary power structures, including hierarchies of race, *How to Live Safely* arrives at a place of combustion. As Lowe writes in *Immigrant Acts*, the novel can be considered as “a cultural institution that regulates formation of citizenship and the nation…the cultural institution of the novel legitimates particular forms and subjects of history and subjugates or erases others” (98). She continues, delineating the characteristics of the novel as U.S. cultural institution: “We have observed that this link between historical narratives of the U.S. nation and novelistic narratives of the individual is mediated by adherence to a realist aesthetic, a fetishized concept of development, and the narration of a single unified subject” (107).

In this chapter, I have shown that *How to Live Safely* resists all three of these characteristics, underlining its resistance to assimilation to the American mythos of self-determination and the corresponding myth of the model minority. Further, I have aimed to put Charles’s time-travel double into both a larger racialized context and a larger posthuman context. In seeing the time-travel doppelgänger as posthuman, I shift the understanding of posthumanism discussed in the first chapter – as a mode of flattening race and stereotyping BIPOC people – to demonstrate the way the posthuman can be a figure of empowerment. By accepting his posthuman double as his ally, rather than his enemy, Charles is able to free himself from the perpetual oppressive cycle of late capitalism. In the next chapter, on the poetry of Sun Yung Shin and Franny Choi, I continue this line of thought, considering how these writers employ the figure of the posthuman and alliances between human and posthuman to subvert techno-Orientalism.

Interlude: Sex

Dinah is a little over five foot three inches tall, and weighs about 84 pounds. She has straight black hair and wears a loose red kimono robe, decorated with white flowers and made of silken material (though probably not real silk) and tied with a satiny belt (again, probably not real satin) that resembles an obi. She wears red lipstick that matches her red robe and carries a red fan in her right hand. Dinah is, according to her description on uloversdoll.com, "a beautiful and sexy Japanese geisha…She will be your best wife, whose sweet face and live breasts are as gentle and virtuous as real Japanese women."

Dinah costs $3,369.89 on the website ULoversDoll, on sale from $3,769.89.

On ULoversDoll, there are other Japanese dolls, there are Chinese dolls, there are Asian dolls, there are Black dolls and white dolls, but they are all contemporary figures – there are no Victorian English sex dolls or pioneer American sex dolls. So why the geisha?

Lacey ($1,899, on sale from $2,199) was "born in the Japanese district of Gion – a geisha neighborhood – where her mother used to be 'okiya-san' (madam) at a geisha house. When Lacey was a child, she used to watch all her mother's geisha girls having sex with their 'dannas' (patrons), and she learnt so much about the art of physical love from watching their couplings." Though Lacey is not a trained geisha, says her description on siliconwives.com, she "knows enough about the magical geisha arts to keep you in thrall for the rest of your life."

Geisha did not always signify a kind of shorthand for sex. Appearing around the year 1730, the first geisha were actually male; female geisha began to appear around twenty years later as dancers (*odoriko*) and *shamisen* players, taking over the profession by 1780. Geisha worked as assistants to courtesans, and regulations prohibited them from forming personal relationships with clients or, even, sitting near the guests. As geisha gained in popularity, they began displacing the courtesans, but they were known as artists – musicians, dancers – and not sex workers. By the 1920s, there were as many as 80,000 geisha across Japan.

It was only after World War II that the West began to view geisha as a kind of Japanese prostitute, one with special makeup and hair and dress, intense training in classical arts, but a prostitute nonetheless. This misperception stemmed from Americans' general oversimplification of all female workers in the entertainment and hospitality as "Geesha girls"; adding to this confusion was the fact that sex workers sometimes posed as geisha – dressing up as them and claiming to be them, despite lacking the training – in order to attract Western clientele. But the American portrayal of geisha as subservient and powerless served greater geopolitical ends. As historian Naomi Shibusawa argues, during the U.S. occupation of Japan, both American government and American media engaged in a project of "reimaging" Japan: casting it not as an enemy, but as an ally (11). To create a new, palatable image of the Japanese, American politicians, journalists, and filmmakers rendered a vision of the Japanese as feminized and submissive, in need of America's strong guidance. And who to better epitomize this reimaging than the figure of the geisha, who began to appear in Western media not only as a stand-in for sex, but also for a Japan that was frozen in time – submissive, powerless, and unable to modernize.

This is the history that imbues the geisha sex doll, of Dinah and Lacey. This is the history of U.S. domination and occupation, being bought and sold in the form of silicone.

Suki ($1,890) wears a pink flowered kimono and matching obi; she is “obsessed” with the history of geisha and wishes she could be one, but doesn’t want to be with a different man every night. Rather, details the description on sexdollparadise.com, she “wants to be your personal Geisha…she has this fantasy that she is the *personal Geisha* of a man satisfying his every need in the bedroom.” The description goes on: “Tell Suki what you want to do to her, and she will agree without question. After all, that is what a good Geisha should do.”

Dinah and Lacey are not posthuman – not quite. The sex doll is anthropomorphic; the sex doll is uncanny. As literary scholar Prayag Ray argues, the sex doll may at first seem to represent the blurring of boundaries between the human and mechanical that characterizes the posthuman, in which “the organic is becoming mechanized and the mechanical is becoming organic” (103). Ray explains that the sex doll represents both the “sexual fetishization of a machine” and the “humanizing of the machinic body,” appearing to challenge the divide between human and machine. However, Ray argues, this challenge is merely superficial, and the sex doll actually represents an “extreme form of solipsistic narcissism” that maintains the primacy of the human through its control over the nonhuman (104). Instead, the sex doll operates in strange territory: an inanimate, inhuman object that is treated as though it is not inanimate, nor inhuman, by its users. Ray concludes, “the sex doll is not *as yet* part of the extended cognitive network of posthuman consciousness,” adding that the addition of artificial intelligence would make the sex doll into an android, which would then be “part of the posthuman network” (108, 107).

But if, as Ray posits, posthumanism depends on dispensing with the human desire for mastery and control, will sex robots – who are marketed as not only submissive, but also programmable – ever truly be posthuman?

Conversations about sex dolls and sex robots typically center around their innate misogyny: their literal objectification of women as silent, submissive beings, designed and existing purely for men's pleasure. The Campaign Against Sex Robots, founded in 2015, describes its mission as defending the "dignity and humanity of women and girls" and warning against the dangers of "reinforcing female dehumanisation" through the development of sex robots. But while much has been written about the gendered problems of sex dolls and sex robots, very few studies or articles so much as mention the racial implications of these humanoid figures. In these studies, it is as if sex dolls and sex robots exist in an utterly misogynistic but purely postrace world. Sex dolls and sex robots, though, are humanoid, and humanoid robots must have skin, and skin must have skin color, and skin color must signify race. And so – while they are not sentient, nor intelligent – sex dolls have one very human trait: they are racialized beings.

Grace ($2,399, on sale from $2,499) is a graphic designer, with a French father and a Japanese mother. According to her description on dollwives.com, "she has been all over Europe and Asia but never to North America so living with a gentleman from there would be an exciting adventure for her." The word "geisha" appears nowhere in Grace's description, but it is prominently featured in her full name, "Grace: Japanese Geisha Sex Doll."

The television show *Westworld* premiered on HBO in 2016, introducing viewers to a futuristic theme park populated by hyper-realistic androids whose main purpose is to provide the human guests with the opportunity to play out their most extreme violent and sexual fantasies. While the entire first season plays out within a park that replicates the American West, the second season begins to expand the Westworld's reach, introducing two new parks: the Raj, which replicates the period when India was under British Rule (1858-1947), and Shogun World, which replicates Edo Period Japan (1603-1867).[10] Shogun World, as Westworld's narrative director Lee Sizemore (a human) explains, is for guests who find Westworld "too tame"; this world is for "the true aficionado of artful gore." Where Westworld is a place of cowboys and Indians and occasional gunfights, Shogun World is a land of samurai and ninjas with brutal swordfights and seemingly constant beheadings. But guests do not come to the theme park only for violence; they also come for sex (and sexual violence). And so, in the midst of Shogun World, lives Akane, the geisha madam.

When we first meet Akane, at her geisha house, her face is fully painted white, her hair is meticulously arranged, and she has a coy smile on her face, her lips painted a perfect red. As the episode progresses, it becomes clear that Akane is a double of Maeve, the Black madame from Westworld; Sizemore ran out of time when writing the host narratives and copied the character. The plot follows Maeve and her mixed android/human crew as they attempt to help Akane rescue her ward, Sakura, who has been kidnapped by the Shogun. Akane, like Maeve, has thrown off her programming; instead of being purely passive and compliant, she protects Sakura by,

[10] Over the years, *Westworld* has received some criticism of its racial politics, but little has been written about Shogun World: in the *Los Angeles Review of Books*, Hope Wabuke makes an extremely convincing argument about the show's stereotyping of Black bodies and exploitation of Black pain; in *Cultural Politics*, Alison Landberg argues that *Westworld* poses as postracial, but in fact is deeply undergirded by racism, particularly in the stereotypical portrayals of the Black android "hosts"; in the *New Yorker*, Aaron Bady points out the show's faulty analogy between the android hosts and American slaves; and in *GQ*, Scott Meslow discusses the imperialist fantasy of The Raj.

first, stabbing the Shogun's emissary in the eye with her hairpin and, later, using the hairpin – her weapon of choice – to sever the Shogun's head. But even after Akane begins to "wake up" – to gain consciousness – she twice declines Maeve's offer to help her escape Westworld and enter the "real" world. *Westworld* tries to pass Akane's decision to remain in Shogun World – where she will surely die, either at the hands of other androids or the humans – off as an agential choice; when Akane tells Maeve she will remain in Shogun World, she repeats something Maeve has said earlier in the episode, by way of explanation: "We each deserve to choose our own fate, even if that fate is death."

Westworld tries to convince the viewer that Akane has made as agential a choice as Maeve. But Maeve, the Western madame, is able to manipulate Westworld's systems, to control nearby hosts, to carry out her own personal mission to save her daughter. Akane, despite the fact that she is meant to be a Japanese version of Maeve, is still working within Westworld's narrative constructs; she is not even able to use her own words to explain her choice but relies on Maeve's articulations. Within the world of both Westworld, the theme park, and *Westworld*, the show, the geisha chooses not to pursue full consciousness – full humanity – but rather to remain static. This is the fantasy of Westworld: that only the Western androids can gain freedom; that only the Western androids even *want* freedom.

There are no geishas – yet – in real-world robot technology. Widely considered the first sex robot, Harmony debuted in early 2018. Designed by the company Abyss Creations, Harmony came with a patented animatronic talking head and programmable personality and memory. Starting at $10,000, the default mode came with a white skin tone, blonde hair and blue eyes. The company – the leading brand on the market – has since expanded its offerings to include

Solana, Tanya, and Serenity, all of whom have white skin, and Nova, who has an ambiguously brown skin tone.

Sex robots are still a niche item, produced by very few companies, and purchased by very few consumers. Still, interest in sex robots is growing. In 2018, Abyss sold around 30 sex dolls a month (Davis); during the Covid-19 shutdown of 2020, Abyss reported that sales have been up 75% (Morris). In a much-cited 2015 report by futurologist Ian Pearson – in conjunction with Bondara, one of the U.K.'s largest sex retailers – Pearson predicts that robot sex will begin appearing in "high-income, very wealthy households as soon as 2025" and that we will "start to see robot sex overtaking human-human in 2050" (3). In 2007, the British artificial intelligence expert David Levy published *Love and Sex with Robots: The Evolution of Human-Robot Relationships*, in which he argues that "love and sex with robots on a grand scale are inevitable" (22). He writes: "How will it affect us when we are no longer instinctively able to tell robot from human at a glance?...Might the differences, such as they will be, between humans and robots create a new form of discrimination? And if so, who (or what) will be the group that is discriminated against?" (304). [11]

For now, there's Dinah and Lacey, Suki and Grace. And, on kanojotoys.com, there is Party Doll Geisha Tomoko ($20,166), the most expensive of them all. Tomoko has short brown hair cut into a chin-length bob; she wears a red *juban* robe with a deep v-neck, exposing ample silicon cleavage. But Tomoko is not a traditional sex doll – she has no penetration hole. Instead, she offers a different party trick: a user can "squeeze her exquisite right breast" and a drink will

[11] Pearson and Levy are not exactly reliable sources; they have gained much notoriety, but their expertise is largely self-proclaimed. It's also notable, in looking at their idealistic vision of love between human and robot, that Pearson and Levy are both white men – not a demographic that is threatened by the dehumanization sex robots promise.

be dispensed out of her left breast. ("You are free to use any beverage you want," says the website copy, "though we recommend wine or Japanese sake.") A sex doll that is also a drink dispenser is, the website boasts, "the perfect party companion."

Kanojo Toys is a Japanese, not American, company. What does it mean that a Japanese company is itself promoting a geisha sex doll? Tomoko is still, arguably, created for the Western gaze; on the Kanojo Toys website, the company explains their mission as making "Japan's erotic wonderland available to the rest of the world" and they emphasize that their customer service reps speak not only Japanese, but also English and German. Is Kanojo Toys knowingly complicit in the simplification of the geisha? Or has the Western understanding of geisha so infiltrated global consciousness that it is now influencing even a Japanese company? Is there a market for geisha sex dolls in Japan, or do they cater primarily to Western demand?

It is hard to believe that anyone would spend $20,000 on a glorified keg. But owning Tomoko – like owning Dinah or Lacey – means much more than owning a molded piece of plastic. It means owning a person, owning a woman; it means owning a piece of Japan's history, perverted through the American lens; it means keeping women, and Asian women in particular, subservient and submissive.

Tomoko is currently sold out.

Chapter Three: "In the future, no one is completely human": Posthuman Poetics in Sun Yung Shin's *Unbearable Splendor* and Franny Choi's *Soft Science*

In her 2018 book, *Neoliberalism, Affect, and the Posthuman in Twenty-First Century North American Feminist Poetics*, Heather Milne asserts that "written language is fundamentally anthropocentric," but also argues that poetry is capable of challenging that fundamental anthropocentrism (105). Milne writes that completely "eradicating human agency from the text" is "conceptually impossible," but offers instead that a poet can "prompt the reader to reflect on the politics of human agency in relation to language and narrative" (105). Similar calls to rethink language's fundamental anthropocentrism have been made by the political theorist Jane Bennett, as well as by the environmental philosophers Val Plumwood and David Abram. In *Vibrant Matter*, Bennett writes, "It seems necessary and impossible to rewrite the default grammar of agency, a grammar that assigns activity to people and passivity to things" (119). Plumwood and Abram propose complementary visions of how we might rethink nonhuman language: Plumwood proposes "re-animating the world" by depicting nature "in the active voice, the domain of agency" (113); Abram argues that we must stop privileging the denotative form of language that belongs to humans, and instead recognize the "sensuous" language of nonhuman animals and nature, language that signifies meaning through tone, rhythm, or bodily expression or gesture (80).

These are vital interventions into the anthropocentrism of language, advocating not only for humans to recognize posthuman agency, but also for us to find ways to innovate language in order to express that agency. But Bennett, Plumwood, Abram, and Milne are all primarily

focused on a specific definition of the posthuman as nonhuman nature, and on the ecological stakes of de-anthropomorphizing language. In this chapter, I consider two recent collections of poetry – Sun Yung Shin's *Unbearable Splendor* (2016) and Franny Choi's *Soft Science* (2019) – that look at posthuman poetics from a different angle: that of the technological and biotechnological posthuman. I broaden the formal scope of my project by looking beyond the novel – typically the representative form for science fiction – and toward science fiction poetry, a burgeoning subgenre of science fiction that has received relatively little critical attention. In examining the posthuman grammars of these two collections, I ask: how can poetry – with its emphasis on sonic and linguistic experimentation over plot and character – represent the posthuman differently than prose? Both Shin and Choi include a wide range of posthuman narrative personas in their respective collections, including the cyborg, the android, the robot, a machine reaching the Singularity, and a group of South Korean clones. In taking on these myriad posthuman personas, Shin and Choi create new alliances and possibilities for understanding between human and machine. They suggest that the boundaries between the two are not as stable as they are often portrayed, and that written language – while a human construct – is capable of representing a multitude of voices, human and nonhuman. And finally, through both the form and content of their poems, Shin and Choi demonstrate that technological and biotechnological posthumanism is not race-neutral but, in fact, racialized.

In this exploration of the human-machinic, Shin and Choi are guided by Donna Haraway's seminal essay, "A Cyborg Manifesto," which both poets quote from in their collections' epigraphs. First published in 1985, the essay argues that, in the late twentieth century, the boundaries between human-animal and human-machine have become porous. But, Haraway says, rather than protecting those boundaries, we should rejoice in their breakdown.

These boundaries are upheld by the "traditions of 'Western' science and politics – the tradition of racist, male-dominated capitalism" (150). Their dissolution, then, allows for a new formulation of social relations, one that will help liberate women from the domination of patriarchal Western society. In her argument, Haraway explicitly connects the desire to maintain a clear distinction between human and machine with the desire to maintain gendered hierarchies in the Western conception of self (174). Instead, Haraway advocates a "joint kinship with animals and machines," and urges us to look for "new couplings, new coalitions" that will disperse power and decenter it from white, male, Western control (154, 170). In the essay's final line, Haraway famously embraces a cyborg identity – "I would rather be a cyborg than a goddess" (181). By no longer striving to be accepted as fully human – an identity historically limited to white men – Haraway recasts the technological posthuman as a figure of resistance and liberation.

It is especially provocative that Shin and Choi both embrace Haraway's conception of the cyborg since the cyborg – and all forms of biotechnological and technological posthumanism – have specific racialized implications for Asians and Asian Americans, who are often stereotyped as emotionless, robotic, and machine-like. This stereotype translates to the common science fictional trope of techno-Orientalism, a term coined by David Morley and Kevin Robins to describe the U.S. response to Japan's economic and technological boom of the 1980s: "The association of technology and Japaneseness now serves to reinforce the image of a culture that is cold, impersonal, and machine-like…These kids are imagined as people mutating into machines; they represent a kind of cybernetic mode of being for the future. This creates the image of the Japanese as inhuman" (169-170). More recently, David S. Roh, Betsy Huang, and Greta Aiyu Niu have expanded the definition of techno-Orientalism to all Asian countries and peoples, to

reflect rising Asia's expanding technological prowess (2). Key to techno-Orientalism is its unironic, unexamined forwarding of Asians as synonymous with technology. In *Neuromancer*, for example, Case never questions the alignment of futurism and the Asian setting of Chiba City, nor does anyone (all two human characters) in *Ex Machina* comment on the choice to make the silent, docile robot Kyoko an Asian female.

Rather than distance themselves from these techno-Orientalist tropes of science fiction, Shin and Choi directly contend with techno-Orientalism by celebrating the alliance of an Asian speaker and machine counterpart. This celebration seemingly affirms techno-Orientalism's central tenet: the connection between Asians and technology. But in affirming this connection, they also follow one of Haraway's central claims, that the cyborg is "resolutely committed to partiality, irony, intimacy, and perversity" (151). They are not replicating techno-Orientalism uncritically. Rather, both collections self-consciously engage with techno-Orientalism, subverting it by offering an embrace of the machinic and by rejoicing in the breakdown of boundaries that techno-Orientalism condemns. Ultimately, I argue that Shin and Choi's posthuman poetics challenge both techno-Orientalism and anthropocentrism, positing an alliance between the poems' posthuman figures and their Korean-American human speakers that decenters the Western conception of the paradigmatic human as a white male.

Cyber Poetics and the Illusion of Unraced Technology

What does it mean for technological and biotechnological posthumanism to be racialized? The term posthumanism encompasses a range of meaning, from matter to non-human animals to systems. In this chapter, I discuss two related – but not identical – forms of posthumanism that I identify as technological and biotechnological. Technological refers to

mechanical imitations of the human: the robot and artificial intelligence (which includes AI's corollary, programming and code). The biotechnological refers to forms of the human that still rely on incorporating normal biological functioning of the human: the clone (a biological copy of the human) and the cyborg (a fusion of biological human and machine). Lastly, the android lies somewhere in between these two categories: a robot who is made to look like a biological replica of a human (given a body and a face), but whose internal systems are purely mechanical. The presence of race is clear in the biotechnological posthuman; because they are reproductions of or additions to the biological human, it is impossible to avoid the representation of race in the clone or the cyborg. And although the android is a machine, it similarly cannot avoid the representation of race via its skin tone and facial features.

While the presence of race is less clear in technological posthumanism, robots and AI still function within a racialized context. Although AI does not, itself, have a racial identity, there is a growing consensus that it does hold racial (and gender) biases, and can play a role in exacerbating racial injustice in situations ranging from health care to criminal justice to home loans (Obermeyer et al., Angwin et al., Bartlett et al.). Recent research in robotics suggests that people are not only inclined to anthropomorphize humanoid robots, but also to attribute race to humanoid robots based on the color of the robot's exterior, and to treat the robots differently based on their assessment of the robot's "race" (Bartneck et al.).[12] This racialization is not a factor in nonhumanoid robots (robot cats, for example), but since social robotics relies on the relationship between a human and a humanoid robot, it is likely that humanoid robots will remain the most popular version of robots, and that the tendency to anthropomorphize and

[12] The terms "humanoid robot" and "android" are sometimes used interchangeably in popular media, but robotics draws a distinction between them. A humanoid robot is a robot is a robot whose body resembles the human body and can mimic human motion; it differs from the android in that it can still be clearly identified as non-human. The android, in contrast, is designed to fully resemble the human, and is often covered with artificial skin.

racially-code robots will persist (Sparrow 549).

What, then, is at stake in a posthuman poetics that centers on the biotechnological and technological posthuman? The stakes of posthuman poetics centering on nonhuman nature – the poetics forwarded by Bennett, Plumwood, and Abram – are clear: by decentering the human, this more prominent version of posthuman poetics restores agency to the nonhuman nature that has been so decimated by anthropocentrism; it promotes a vision of a world in which humans live in greater reciprocity and equity with the natural world. But what about this other posthuman poetics, that of cyborgs and androids and AI and clones? This kind of posthuman poetry often acts primarily as a formal or aesthetic experiment, which largely serves to comment on our overly technologized society. The stakes, perhaps, speak to capitalism or government surveillance, or remain primarily concerned with postmodern linguistic experimentation. But while Shin and Choi are certainly practicing aesthetic and linguistic experimentation, that is not the end goal of their work. Rather, they complicate the project of posthuman poetry by pursuing questions of how technology engages with questions of race, as well as nationality, gender, and sexuality. In doing so, they not only contest a vision of technology as race-blind, but also simultaneously contest the tendency of technological posthuman poetics to reinforce that false notion of technological race-blindness and elide questions of identity.

In order to situate Shin and Choi's intervention, it will be helpful to give a brief background on technological posthuman poetics, and its history of prioritizing aesthetic innovation and dismissing the relevance of race and gender. Technological posthuman poetics has largely presented itself as a race-neutral space, in line with certain visions of technological posthumanism as liberated from present-day racial injustice and inequality. Experimental poets Kenneth Goldsmith and Christian Bök are two of the most prominent figures in the movement of

cyber poetics, with both utterly eliding questions of race in their scholarship, thus implicitly presenting technological posthumanism – and the poetics that seeks to represent it – as an unraced space. But is technological posthumanism unraced, or is it in fact reproducing a default vision of whiteness? Both Goldsmith and Bök focus their work on not just decentering the human author but supposedly eliminating the human entirely. Writing about the 1985 computer experiment RACTER – an algorithm that produced the poetry collection *The Policeman's Beard is Half-Constructed* – Bök coined the term "robopoetics," arguing that the "involvement of an author in the production of literature has henceforth become discretionary" (10). Bök argues that poetry has been formally exhausted; that the only means left of "poetic innovation" may be writing via machine, for a machinic audience (17). Bök may intend this argument as pure or partial provocation, but there is no indication in the rest of the essay that this conclusion is meant to be tongue-in-cheek. But, while Bök consistently employs a universal "we" throughout his essay, his pronouncement is hardly universal; rather, he presumes the universal of the white male subject that is often synonymous with humanism. In reaching the conclusion argument that "we" are in risk of getting trapped "in the rote maze of our own poetic habits," Bök cites: Jonthan Swift, Italo Calvino, Ferdinand de Saussure, André Breton, Umberto Eco, Alan Turing, the Italian poet Filippo Marinetti, the computer scientist Alexander Dewdney, the computer programmer Charles Hartman, John Cage, Jean Baudrillard, and Jorge Luis Borges (11). In other words, to contextualize his argument that poetry by humans has been formally exhausted, Bök cites exclusively white men, without a single reference to a woman or a person of color.

Similarly, Goldsmith – who guest-edited the special *Cyber Poetics* issue of *Object* in which Bök published his robopoetics essay – argues that literature "is in a rut, tending to hit the same note again and again" and that "faced with an unprecedented amount of available text, the

problem is not needing to write more of it; instead, we must learn to negotiate the vast quantity that exists" (7, 1). To get out of this literary "rut," Goldsmith proposes what he calls "uncreative writing," which he defines as "the art of managing information and re-presenting it as writing" via techniques including codework, programming, appropriation, collage, and outright plagiarism (227). Importantly, Goldsmith emphasizes that "uncreative writing is a postidentity literature" (85); he describes it as "a technology-fueled postidentity writing practice, one that makes the reader wonder whether the author's identity actually had anything to do with the person who wrote it" (90). While Goldsmith gives a one-paragraph disclaimer about the importance of promoting marginalized voices, he immediately undermines this statement by demonstrating a superficial understanding of what he pointedly calls "identity politics," calling it a "slippery issue" and discussing the ways that he – a white man – feels his identity is "up for grabs and changeable by the minute" (83, 84). Questions of identity are surely complicated, but Goldsmith's false equivalency reveals a disturbing lack of understanding of other subjectivities.[13] In fact, Goldsmith clearly argues for "uncreative writing" – which he has emphatically defined as a "postidentity literature" – as a "realism beyond realism: it's hyperrealist – a literary photorealism" (101). But the kind of unraced, ungendered, "postidentity" literature that Goldsmith proposes is photorealistic for only the smallest sliver of the world's population. Goldsmith and Bök, two of the most prominent theorists of cyber poetics, both demonstrate an utter obliviousness to the ways that race – and gender, and sexuality – engages with technology, instead advocating for a purely formalistic approach that relies on their privileged positionality.

As Alondra Nelson writes: "That race (and gender) distinctions would be eliminated with technology was perhaps the founding fiction of the digital age" (1). This is the fiction that

[13] In 2015, Goldsmith was widely condemned for reading a "poem" of his, titled "The Body of Michael Brown" which consisted solely of the slightly-altered text of the autopsy report of Michael Brown.

Goldsmith and Bök both subscribe to and perpetuate, in both their poetry and their critical work, as they forward a vision of an unraced, "postidentity" cyber poetics. Shin and Choi's work makes such a valuable intervention because they dismantle this fiction, offering an intersectional engagement with technological posthumanism that considers not only race, but also gender and sexuality. In so doing, they craft a posthuman poetics that simultaneously expands our understanding of the biotechnological and technological posthuman and also expands the possibilities for deanthropomorphizing language to represent the posthuman. Both Shin and Choi innovate the form of the poem itself to demonstrate the possibilities of an alliance between human and posthuman while demonstrating that technology is, in fact, a deeply racialized and gendered space. They thus forge a path for a more complex posthuman poetics, one that is fully cognizant of the fact that technology will not dissolve racial and gender inequality.

Sun Yung Shin & Destabilizing the "Lyric I"

Published in 2016, *Unbearable Splendor* is a hybrid volume of prose poetry and essay that emphatically connects its concern with posthumanism to the experience of racial difference. Drawing on Shin's personal history as a Korean adoptee to a white American family, the poems investigate questions of immigration, adoption, assimilation, and language acquisition. Simultaneously, they explore the stories of a wide variety of posthuman figures, from myth (the Minotaur) and fairytale (Pinocchio) to the animal (the beetle form of Kafka's Gregor Samsa) and the biotechnologically altered human (the clone, the cyborg, the replicant). But rather than distance herself from the long-held stereotype of the Asian as machine, Shin proclaims a kinship with these posthuman figures, particularly drawing out the similarities between their yearning to

be accepted by a society that looks upon them as not fully human and Shin's own experience as both an adoptee and a non-white immigrant.

Shin formally emphasizes the possibility of posthuman subjectivity by destabilizing the "lyric I" of Romantic and Modernist poetry, demonstrating a flexible notion of selfhood that not only transcends racial boundaries but also the boundaries of the human-mechanical. According to Marjorie Perloff, postmodern poetry breaks with the conventions of the Romantic and Modernist lyric by eliding the "lyric I," which she describes as "a coherent or consistent lyrical voice, a transcendental ego"; the work of postmodern poets shows a definitive absence of the first-person singular pronoun (12). In contrast, Shin disrupts the coherency and consistency of the "lyric I", but she does not dispense with the first-person speaker. Rather, her work engages in what Xiaojing Zhou has identified as a larger rethinking of the "lyric I" among contemporary Asian American poets:

> Asian American poets open up the poetic space for the other and its alterity, highlighting the ethics, politics, and aesthetics of otherness in their investigation of subjectivity, language, and self-other relationship. Their poetry calls into question a homogenous, stable, totalizing definition of the 'lyric I' as the self-centered, unitary, autonomous Cartesian self, speaking in a masculine, authoritative voice, reducing the other (including women and nature) to objects of its knowledge. Rather than seeking to get rid of the 'lyric I,' Asian American poets transform its attributes, reinvent its functions, and reconceptualize its relationship with the other. (4)

There is a well-established critique of the "lyric I"'s "self-enclosure, self-indulgence, and authoritative voice of a universal, masculine, autonomous subjectivity," but, as Zhou argues, the

use of the first-person voice can also restore agency to racial minorities such as Asian Americans, who have been denied equal subjectivity in poetry's history (5).[14]

Still, minority poets cannot simply adopt the "lyric I" wholesale; rather, as Zhou argues, Asian American poets transform its use, interrogating the assumption of universalism that accompanies the first-person speaker. In *Unbearable Splendor*, Shin disrupts the traditional "lyric I" through at least three distinct poetic strategies: first, by unsettling the autobiographical first-person singular in "Valley, Uncanny"; second, by presenting multiple first-person singular voices within a single poem, "In Other Futures"; and third, by dismantling the first-person singular voice entirely and replacing it with first-person plural, in "Autoclonography." While these strategies are specific to these poems, the overall effect is one of dispersed subjectivity that runs throughout *Unbearable Splendor* as a whole, offering a posthuman transformation of the "lyric I" that challenges the hegemony of the white male speaker who has for too long been considered the representative of the human.

The first poem in the collection, "Valley, Uncanny," destabilizes the position of the individual human speaker, thus unsettling the traditional notion of the "lyric I" as speaking from a singular, transcendent human ego. Early in the multi-page poem, Shin includes two images of Masahiro Mori's well-known graph of the uncanny valley: one with the text in English; the other, on the facing page, with the text in Korean.[15] Mori's graph places a "healthy person" at the very height – most familiar, and most human likeness, therefore least uncanny. But when the

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[14] Contending with the legacy of the "lyric I" as a means to restore individual agency is a concern not only in Asian American poetry but also in other poetic movements. Rafael Pérez-Torres makes a similar argument about the first-person speaker in regards to Chicanx poetry, as does Brian Swann in his introduction to an anthology of twentieth-century Native American poetry.

[15] While Mori takes the term "uncanny" from Freud's 1919 essay *Das Unheimliche*, Mori and Freud differ importantly in the way they view the relationship of the human and the uncanny. For Freud, a human can be uncanny, in the form of the double (the doppelgänger); for Mori, the living human is the furthest one can get from the uncanny, with "healthy human" at the highest point on both the x- and y- axes. I base my reading of "Valley, Uncanny" on Mori's version of the uncanny, since Shin explicitly includes his graph in the poem.

speaker recounts her adoption from Korea, she challenges the assumption that humans exist on a separate part of the graph than the uncanny: "I was an uncanny guest. Two years old. A week after arrival from Korea, a brother, born in America, asked, 'When is she going back?'" (1). It is not only her Korean ethnicity but, perhaps more importantly, her displacement that makes her seem uncanny. As Shin explains in an interview with *The American Poetry Review*, "I've been thinking about the adoptee as a cyborg…I was thinking about the idea of racial drag, how the adoptee of color who has a white name and a white family triggers a sense of the uncanny in a white person because that white person hasn't experienced genealogical isolation" (9).

In its current applications in robotics and CGI, the uncanny is typically seen as a place of revulsion, an area that humans want to avoid. But rather than distance herself from the uncanny, Shin embraces its uncertainty, challenging the notion of the *unheimlich* as that which must be feared and recasting the unfamiliar as a space of possibility. While the speaker retains a first-person singular point of view throughout the poem, the poem gradually destabilizes the speaker's identity, taking away her name, her spatial and temporal position, and even her ability to distinguish between herself as human and uncanny. But the speaker does not resist the loss of her individual selfhood: "I lost my name and I stepped onto this corner, this half frame, the axis…One small step onto vertical Y and horizontal X, at the crossroads between *familiarity* and *human likeness*" (4-5). The speaker claims a different spot on the graph – a more uncanny position – but also asserts that the uncanny is not something to fear, but rather something to embrace: "The opposite of *what is familiar* is *infinite possibilities of startling encounters*" (5). By aligning herself with the uncanny, the speaker suggests that strict definitions of humanity – that have historically privileged white men as the paradigmatic human – are limiting, and posits a

new mode of thinking about the posthuman, in which the posthuman is not trying to assimilate to the (white, male) human, but rather is valued as a being on its own terms.

"In the Other Future" takes the project of destabilizing the "lyric I" further, moving through multiple first-person singular speakers, both human and posthuman. Structured by numbered sections, the poem begins with the speaker recalling her childhood field trips to the Robert Crown Center for Health Education in Illinois; the only exhibit the speaker can remember is a transparent model of a human being, called a TAM (Transparent Anatomical Manikin), whose name is Valeda. With its inclusion of these specific details, the poem begins by locating itself in the realm of autobiography, with a first-person singular speaker who again represents Shin's childhood persona. From the start, the poem grants indirect speech to Valeda: "She was a teacher. She lit up. She told me not to be afraid to be manufactured. To be immortal until I wasn't" (69). With the word "manufactured" the poem points toward the speaker's feelings of uncanniness, that she – as a Korean adoptee in a white American family – is a cyborg figure. But again, as in "Valley, Uncanny," the encounter between the human speaker and the posthuman figure is portrayed not as one of fear, but as one of kinship and understanding; the human speaker not only doesn't fear the posthuman Valeda, but Valeda helps the speaker to no longer fear her outsider status. Still, in these opening lines, Valeda's subjectivity is still filtered through Shin's childhood persona; at first, the reader only receives Valeda's thoughts through a human intermediary.

But after seemingly establishing Shin's childhood persona as the first-person speaker, the poem makes a series of surprising shifts in perspective, challenging the reader's expectations for a consistent "lyric I". Using the numbered sections to mark the transitions, Shin moves the perspective from her childhood persona to Valeda's first-person account:

> 9. Everyone can see through me. Everyone can see all the people inside me. In my computer model, which can separate into layers, there are so many different people inside me, I myself haven't even met them all yet. My twin to the left of me, or the right of me. One of me has a face, one of me can talk to the audience.
>
> 10. Can the whole world see me all at once? (69-70)

By shifting the perspective to Valeda, the poem suggests that the human speaker does not have a monopoly on subjectivity. But while certain details are clearly specific to Valeda (the computer model, the twin, the audience), the style of her voice still overlaps with that of Shin's childhood persona, suggesting a porousness between the two that is reinforced by the intentionally muddled identity of the "I" speaker.

But how is Valeda – a mannequin with plastic lips that cannot move – speaking? As the poem explains, while still in Shin's persona: "Like me, she could talk without moving her mouth" (69). With this line, the poem draws a comparison between Valeda's physical silencing and Shin's own metaphoric silencing, as an Asian American woman. But this line also suggests that both Shin and Valeda have found new ways to communicate outside of modes of speech that have been sanctioned by a white patriarchal society. As Patti Duncan explains in her study of Asian American female writers and silence, "the price of assimilation into and acceptance within U.S. culture has often been enforced silence" (viii). Duncan argues that this silence can also be viewed as "a means of resistance to hegemonic power, particularly the forms of power structuring the lives of contemporary Asian American women" (2). It is a further form of joint resistance that the human speaker and Valeda have found a way to communicate across their enforced silence, again suggesting a political alliance opposing the societal forces that assume they have no voice.

In section fourteen, the poem further destabilizes the position of the “lyric I” when it shifts to yet another first-person singular speaker: the voice of Rachael, the replicant who doesn’t know she is a replicant from *Blade Runner*. The shift is abrupt but the poem leaves no doubt about who is the speaker, using concrete details from the movie to clearly identify Rachael: “I let Deckard rape me so, you know, it wasn’t rape. *I remember playing the piano at home. I remember having my picture taken*” (70). Like the poem’s portrayal of Valeda, Rachael represents a posthuman with an awareness of self, and with the range of emotions typically associated only with the human; as Haraway argues, the figure of Rachael “stands as the image of a cyborg culture’s fear, love, and confusion” (178). But more than simply invoking cyborg humanity, the figure of Rachael has come to be critically associated with that of the colonized or the subaltern (Reid 361); the Asian Canadian poet Larissa Lai has written both a short story and a long poem from Rachael’s point of view, in which Lai explicitly races Rachael’s mother as Chinese. By including Rachael’s subjectivity, the poem further emphasizes the collection’s vision of an alliance between racialized other and posthuman – an alliance that frees the racialized other from a system that delimits their own claim to humanity.

Unlike the questioning voice shared by the human speaker and the posthuman Valeda, the voice of Rachael is confident and brash, asserting not only her right to exist but also her superiority to those who believe the human remains unadulterated as a species. She declares: “I didn’t know I wasn’t human. My past was invented, implanted, and accepted. I’m more real than you are because I know I’m not real” (71). She does not mourn being a replicant; rather, she rejoices in her posthuman status. The poem ends with the line: “You can see through me, you can trust me, I have nothing to hide, I’m right here, I’m not going anywhere” (71). This last line acts as a linguistic microcosm of the poem, with the subject and object shifting so that the first-

person speaker gains more power and more certainty. By the end, the poem has so destabilized the first-person speaker that the "I" in this final line could represent Shin's persona, Valeda, or Rachael. But another way to read the line is that it belongs to no one speaker; rather, the three beings speak the line in unison, gaining agency, presence, and permanence through their alliance.

Finally, in "Autoclonography," Shin destabilizes the notion of the singular self by allowing the human speaker's consciousness and language to merge with that of her clone descendents. As Mark C. Jerng argues, narratives of cloning typically rely on emphasizing the individuality of the clones, showing them to have unique identities; this normative narrative serves to reinforce "implicit rules that codify assumptions about the proper form for life" (380). In contrast, "Autoclonography" emphasizes the clones' collectivity, with the speaker allowing her individuated self to be subsumed by the clones' unindividuated subjectivity. As in "Valley, Uncanny," the speaker embraces the biotechnological posthuman in both content and form. Because the poem is not narrative, it is freed from the constraints of plot and character that typically rule stories of clones and dictate their quests for individual identity. Instead, the poem is able to focus primarily on linguistic play, using constantly shifting pronouns to decenter the first-person singular and, in doing so, to challenge the presumed value of the individuated human.

Like "In the Other Future," "Autoclonography" is organized into numbered sections, which on the whole move toward a radical dispersal of consciousness. The first section acts solely as a second-person address, with only an implied first-person singular speaker: "dear future clones you are multiple" (77). The second section repeats the division between first-person singular speaker and second-person addressee: "dear future clones *I love you more* – than I love myself because there are more of you – than there are of me although I am your mother – and

your sister and *your ancestor*" (77). With this line, Shin again invokes the theme of familial relations and familial displacement that has run throughout the collection, inspired by Shin's background as a Korean adoptee who does not know her biological Korean parents. But the speaker proposes an alternative to the nuclear family structure, asserting her identity as mother, sister, and ancestor, an action that decenters the role of the father. As in "Valley, Uncanny," the speaker does not attempt to distance herself from the posthuman; she demonstrates none of the revulsion that typifies human reactions in clone narratives. Rather, she asserts not only an alliance, but also a familial bond with the clones, as well as a love that overwhelms the love of the singular self.

In these first two sections, Shin nods to poetry's tradition of the "lyric I", only to entirely disrupt it in the third section, where the speaker shifts from first-person singular to first-person plural as she imagines a future in which she and her clones form a collective voice that collapses the grammatical distinctions between the human speaker ("I") and the clones ("you") to form a collective ("we"):

> the word *single* will become a quaint idea, *has become a quaint idea…we are better together* – we won't need the word *I* anymore
>
> to love the word *we* more than *I* – we don't have to capitalize *we* even in the middle of a sentence – the *I* has been *sprung from its prison* no more stretcher for you letter *I* – who do you think you are letter *I* to be so tall to be like the Roman numeral one – *you don't stand for one anymore* – you don't stand up anymore (78)

The collective voice does not inherently imply posthumanism; rather, Shin uses the first-person plural to formally emphasize the speaker's decision to group herself with her posthuman clones

and eliminate the barriers between the human and the posthuman. These lines speak directly to Bennett's call to "rewrite the default grammar of agency," arguing that the pronoun "I" will no longer be necessary in the future, replaced by a collective "we" (119). The speaker points to the fact that the English language itself privileges self-centeredness and individuation by capitalizing the "I" even in the middle of the sentence, when no other pronoun is capitalized. Furthermore, the speaker suggests that the word "I" is limiting – that moving beyond the word "I" will be a liberation. As in the collection's earlier poems, the poem frames dispersed consciousness not as a diminishment, but as an expansion.

By shifting to the first-person plural, Shin also engages the Western understanding of Asia as a collectivist culture, in contrast to the West's insistence on individualism. In the United States, Asia's collectivist culture is often denigrated and viewed as a negation of the individual self. This line of thinking views collectivism as subsuming the individual, and therefore views the collectivist mindset as one of that lacks agency. In the West, the definition of the liberal humanist subject is closely aligned with individuality, and so perceives collectivity as something less-than-human. But by purposefully incorporating the first-person plural, Shin contests the Western dismissal of the collective as a sign of weakness or passivity; simultaneously, by aligning herself in a collective with the not-fully-human clones, Shin challenges the Western desire to defend the boundaries of the human, in which full humanity is only granted to white, male subjects. As narrative theorist Brian Richardson argues, "we" narration can be used to "articulate collective struggles against colonialism" and to represent "a collective subject in opposition to the hegemonic paradigm of the isolated Western consciousness" (4, 5). By shifting to the "we" voice, Shin models a more expansive subjectivity, one that answers Haraway's call

for “new coalitions” that are not beholden to the individual Western consciousness that is itself so bound to the white male subject (170).

After this shift to first-person plural, the poem maintains the “we” voice for the next several numbered sections, further emphasizing the speaker’s embrace of the collective. In contrast to the earlier section’s statement, “dear future clones *I love you more*,” the speaker now says, “dear future clones we are *rethinking* about you” (77, 79). In section five, Shin writes, “will we be taking *family photographs* together – we and you our future clones – how will we tell years later who is who is who is who is who is who” (79). Still, the poem shows that this movement toward dispersed consciousness is not linear; rather, the speaker continues to wrestle with the limitations of language and the conventions of speech that attempt to reassert the individual self. After declaring the end of the word “I” in section three, the speaker consistently uses the pronouns we/our/us throughout the next several sections. But in the seventh section, a page and a half after declaring the end of the “I,” the first-person singular self briefly reemerges: “we didn’t know we wanted to be *immortal* – but could you please not get yourself into as much pain…my pain is your past but *you might forget me* I mean us we mean us” (80). This confusion between pronouns – and the speaker’s correction – demonstrates that the human speaker has not been able to entirely subsume herself into the collective, at least not yet. The attempt to decenter one’s own humanity is difficult and imperfect, but it is also, in Shin’s work, necessary and inevitable.

Franny Choi & Cyborg Poetics

In her 2019 volume of poetry, *Soft Science*, Choi similarly challenges the boundary between human and machine by inhabiting the subjectivity of a variety of posthuman figures.

Like Shin, Choi uses an epigraph from Haraway for her book, and the cyborg is a key figure throughout the collection, with poems such as "A Brief History of Cyborgs" and "The Cyborg Meets the Drone at a Family Reunion and Fails to Make Small Talk." Other poems in the collection focus on different iterations of the posthuman – inhabiting the voice of an artificial intelligence in a series of poems called "Turing Test" and the voice of the android Chi from the manga *Chobits*. The posthuman figure is often the poem's first-person speaker, and these posthuman poems are interwoven with poems that focus on a human speaker who appears to be Choi's persona. This interweaving immediately suggests an affinity between human and posthuman on the macro level; rather than segregate the two kinds of poems into two parts – or even two separate books – Choi seamlessly moves between the two poetic personas. Even the overriding structure of the book, then, serves to disrupt the boundary between the human and the posthuman.

Formally, the poems in the collection manifest Choi's concerns with not only disrupting the boundary between the human and the mechanical, but also crafting what she calls a cyborg poetics. In an interview with *The Paris Review*, she explains, "I think when we play with form what we're engaging with is the technology of the poem. And so when I play with form, what I'm doing is saying that I'm a coauthor of this text along with the machine of poetry—the mechanics of the lyric...I'm still in the process of figuring out what a cyborg poetics is, but that feels like a clue to me." While Choi notes that she is still in the process of defining cyborg poetics, I read her term cyborg poetics as a formal declaration. Her poems are not only concerned with the cyborg in content, but also seek to embody the cyborg in form. While the poems in the collection feature a wide range of experimental forms, three poems in particular – "Program for the Morning After," "The Cyborg Wants to Make Sure She Heard You Right," and "Kyoko's

Language Files Are Recovered Following Extensive Damage to Her CPU" – particularly illustrate Choi's notion of cyborg poetics. These poems fuse poetic form with technological elements to defamiliarize language as a purely anthropocentric means of expression. Furthermore, by incorporating technological elements such as codework into her poems, Choi uses the very form of the poem to actively enact an alliance with the machinic, confronting techno-Orientalism's vision of Asians as robot-like and mechanical.

"Program for the Morning After" takes an intimate human situation – waking up after spending the night with someone – and transforms it through codework into the form of a computer program. As defined by digital media scholar Rita Raley, codework "refers to the use of the contemporary idiolect of the computer and computing processes in digital media experimental writing, or [net.writing]." The result looks like this first stanza, which might at first seem to be filled with nonsensical punctuation and spacing:

```
did you think {
        when you        said yes;
                        said on my way;
                        pulled
                                [up, open ];

        about           what would stain your fingers
                                [herring, butter squid, seal musk ];
                        the teeth
                                [fingers in the throat ];
}                                                               (24)
```

The rest of the stanzas in the poem have a similar appearance, with Choi incorporating code into the poem by using curly braces ({ }) and square brackets ([ ]), each of which serve a specific purpose in programming code. In programming, curly braces are used to isolate blocks of code from a larger string of code, making it easier to read individual segments; Choi similarly uses curly braces to separate the stanzas of the poem. Square brackets are used to present lists of

variables; Choi primarily uses square brackets to present a variety of possibilities for completing a phrase ("[up, open]"), but also sometimes plays with these programming rules by presenting only one option where there should be an array ("[fingers in the throat]").

By incorporating codework into the poem, Choi uses form to defamiliarize language, calling attention to a hybridization of human and machine while simultaneously suggesting that that this hybridity can better represent the human speaker's affective state than human language alone. Raley argues that codework can generate feelings of fear and alienation, resulting in "anxieties about intrusion, contamination, and uncontrollability…The fear, further, is that code is autopoietic and capable of eluding the artist's attempts to domesticate it and bring it into order." But rather than fearing code, the speaker of Choi's poem uses it as a way to overlay a form of order and logic on what is a deeply emotional response. The codework illustrates a second layer of emotion – the desire to create order and to present oneself as cool and collected, even in an emotionally heightened situation. In fusing human and computer language, the poem is itself a form of cyborg poetics, placing the speaker of the poem into the role of cyborg.

This incorporation of code is not purely a formal or affective statement; rather, the poem argues for a breakdown of linguistic boundaries that not only challenges the border between human and machine, but also challenges the linguistic hegemony of English. In an interview with the *Iowa Review*, Choi expands her claim that poetry is a technology to language more generally:

> As someone growing up in an immigrant family, English was a technology I learned to use to navigate the world safely. That included proofreading my father's scientific papers, impressing my teachers in school, coaching my parents on pronunciation so that they could get closer to passing as American (and, by extension, as human). So I wanted this book to approach language as a technology, along with all its imperfections and

> limitations, the ways it breaks or glitches or jams. Which I think is a shift – from feeling frustrated with English to making some attempts to delight in it.

While much codework and codework scholarship focuses primarily on the formal effects of incorporating code, we can read Choi's codework as racially-inflected, embracing a disruption of perfect English as a rebellion against the assimilation she and her family felt compelled to undertake. Although the poem's content does not explicitly reference race, nationality, or language, all three are addressed in the very form of the poem. Raley's description of codework – as generating fears of "intrusion, contamination, and uncontrollability" – is remarkably similar to the racialized rhetoric in the United States that is directed at all immigrants, including those from Asian countries. By framing this poem through codework, Choi demonstrates the linguistic possibilities that can be achieved through hybridization, marshaling code to destabilize English and the racial biases that only allot full personhood to native speakers.

Building on the collection's interest in destabilizing language, in "The Cyborg Wants to Make Sure She Heard You Right," Choi takes a series of tweets that have been directed at her, processes them into multiple languages through Google Translate, and then translates them back into English. The more "human" of the two technologies, Twitter launched in 2006 as a social network where users can post very short messages known as tweets. Originally, tweets were limited to 140 characters; in 2017, the limit doubled to 280 characters for non-Asian languages. Also introduced in 2006, Google Translate is a machine translation engine, meaning that it uses artificial intelligence – powered by a neural network – to perform almost-instantaneous translation in more than one hundred languages. Overall, these dual technologies – the found language of Twitter and the processing through Google Translate – have the effect of decentering Choi as the human author of the poem. Choi does, of course, retain some aspects of control: she

selects the tweets that act as the source material; she decides how many and which languages to translate the tweets into, as well as when to translate them back into English; she arranges the resulting phrases into the order that suits the poem. Choi thus acts as a co-author of the poem, with the techno-mediated construction of the poem embodying an alliance with the machinic.

In addition to decentering the human as sole author, Choi again uses the machinic to defamiliarize language. Google's translations are not perfect; many critics argue that Google Translate does not understand linguistic nuance, nor does it understand (or maintain) linguistic style. Google itself makes a point to suggest a disclaimer to companies that use the translation API (Application Programming Interface): "Reasonable efforts have been made to provide an accurate translation, however, no automated translation is perfect nor is it intended to replace human translators" ("Attribution"). The imperfections in translation, compounded over multiple translations, result in poetic lines that are only semi-intelligible:

> Mrs. Great Anime Pornography, the fruit of the field.
>
> To date Klansman vagina. Good sister to the Saddle.
>
> May ur shit like people and Hello Kitty.
>
> I have one side of the oil pan, gookess. (26)

In these opening lines, Choi sets a tone of disorientation, in which each individual word is comprehensible but their combination avoids coherent meaning. What the reader can pull out from these lines is, on the one hand, Orientalizing diction and imagery ("anime," "Hello Kitty"), and on the other hand, language of sexualization and denigration ("Pornography," "Klansman vagina," "shit"). The final word of this opening stanza, "gookess," has a clear derogatory meaning – a feminization of the derogatory term for a person of East and Southasian descent – but it has been stripped of context. Notably, even as the rest of the phrase tweeted at Choi

becomes unintelligible, this slur persists intact through multiple layers of translation, as do the words "Anime" and "Hello Kitty." Throughout the rest of the poem, even as the lines' overall legibility is muddled, individual invocations of Orientalism and xenophobia clearly remain, with phrases including "all Asian woman is an object of sex" and "filthy immigrant girl" in subsequent stanzas (26).

Choi thus uses the machinic to demonstrate the persistence of racialized and sexualized language while simultaneously disempowering these kinds of utterances by rendering them incomprehensible. We might, in fact, read the entire poem as a techno-mediated parody of the racist, trolling tweets that Choi has received – a reading that Choi encourages with the final line of the poem: "lol, parody, written, or oil, to rage" (27). Choi is not imitating the style of the Internet trolls, as in traditional parody, but rather using the technology of Google Translate to exaggerate the tweets' incomprehensibility and illogic. Using this technology, Choi performs a self-conscious act of mimicry. As Homi Bhabha writes, "in order to be effective, mimicry must continually produce its slippage, its excess, its difference…mimicry emerges as the representation of a difference that is itself a process of disavowal" (126). In this case, the technological imperfection of Google Translate is what allows for slippage, excess, and difference as a way for Choi to show that she is not simply replicating the hate speech directed at her but disavowing it.

Choi's alliance with the machine technology of Google Translate subverts techno-Orientalism, both by directly contesting the Orientalist slurs and stereotypes directed at her via Twitter and by casting herself as willingly fused with technology. The poem's epigraph describes its formal process: "*Composed of tweets directed at the author…*" (26). But while the epigraph clearly points to Choi's real-world self as author, the title of the poem frames its authorship

differently: "The Cyborg Wants to Make Sure She Heard You Right." Choi casts herself as the cyborg – Haraway's figure of partiality, irony, intimacy, and perversity – and it is this identity that allows her to transmute these hateful utterances into poetry. Identifying with technology does not hamper her or make her passive or unemotive, but rather empowers her, giving her a different set of poetic tools with which to express rage, hurt, and disbelief.

The final poem in the collection, "Kyoko's Language Files Are Recovered Following Extensive Damage to Her CPU," brings Choi's contestation of techno-Orientalism to a climax. By inhabiting the voice of Kyoko – an android from the 2014 film *Ex Machina* – Choi directly contends with one of the most egregious examples of techno-Orientalism in recent years. In the film, Kyoko is clearly raced as Japanese and is portrayed as a sexualized, silent robot who acts as a docile, affectless servant to her male human master, Nathan, who is also her creator. For much of the movie, the film withholds the fact that Kyoko is an android and leaves open the possibility that she is simply an affectless, servile human – the stereotype of the Asian female taken to an extreme. This confusion about Kyoko's identity is enhanced early in the film, when Nathan's guest, Caleb, tries to speak to Kyoko. "Dude, you're wasting your time talking to her," Nathan tells Caleb, speaking about Kyoko as if she weren't standing right before them, "she doesn't understand English" (0:32:38). Nathan goes on to explain that the language barrier acts as a firewall, protecting against Kyoko leaking any trade secrets. At this early point in the film, Caleb presumably understands Nathan to mean that Kyoko only understands Japanese, and that she is willingly silent. But as the film later reveals, Kyoko does not understand English because Nathan has programmed her not to understand it; she does not speak because Nathan has programmed her to be unable to.

In the film, Kyoko is not only subservient to Nathan, her human creator, but also secondary to the android Ava, a later-generation model who is given full language capabilities and who, importantly, is given the face of a white woman. Over the course of the film, Ava is allowed desire, dreams, and imagination; she is articulate, and uses language to manipulate Caleb into helping her escape Nathan's compound. Unlike Kyoko, who maintains an utterly affectless expression, even at the height of the movie's action, Ava has a range of facial expressions. In another contrast to Kyoko, whose "brain" is wired with inorganic metal hardware, Ava is programmed via a soft gel that is malleable and considerably more organic in appearance. At the end of the film, Kyoko is pivotal to Ava's escape, defying her seeming docility and stabbing Nathan in the back with a kitchen knife. But it is Ava who causes the seemingly fatal second knife wound, to Nathan's stomach, after Nathan has smashed Kyoko in the head with a barbell and either killed or disabled her. Kyoko lies, motionless, on the floor of the compound, while Ava escapes the compound and enters civilization. The white Ava thus achieves, if not personhood, something very close to humanity, while the Asian Kyoko is further reduced to the machinic – her metal parts exposed after Nathan's attack.

Choi's poem offers a critique of the film's techno-Orientalist narrative by restoring Kyoko's linguistic ability, employing the postcolonial literary strategy of writing back. As Danielle Wong argues, the figure of Ava in *Ex Machina* – and the film's definition of the human, more generally – is "haunted by liberal human subjectivity: the imperial and colonial configuration of the human as white and therefore free, and as free and therefore white…Asian skin does not allow the posthuman to elude the spectre of Empire and of race" (36). By writing back, Choi offers a resistance both to the movie's overall marginalization of Kyoko and also to the specific disempowerment of Kyoko's linguistic programming. The poem picks up on a few

specific details from the film – the breakfast tray Kyoko carries to Caleb in an early scene, the knife she uses to stab Nathan – but the only specific line from the film is an elliptical reference to Nathan's dismissive explanation that there is no point in speaking to Kyoko: "but do the bees know they are bees / dude, you're wasting your time" (87). The poem excises the second half of Nathan's statement, in which he says that Kyoko does not understand English, suggesting that this half of the conversation has not been retained in Kyoko's memory. In fact, with the word "recovered" in the poem's title, Choi suggests that Kyoko has been able to understand English all along, which the movie also implies but never resolves. With the very act of writing this poem – meant to represent Kyoko's files – in English, Choi asserts Kyoko's ability to understand and process English, confirming the greater interiority that the film only alludes to. If Kyoko can understand English, but Nathan believes that she cannot, then Kyoko has managed to conceal her abilities from her creator, an act that reframes Kyoko's seeming passivity in the film as a form of resistance.

With this writing back, Choi performs a move similar to Shin, who gives voice to the voiceless Valeda and channels *Blade Runner*'s Rachael in "In the Other Future." But while Valeda and Rachael speak in full sentences in Shin's poem, Choi goes further to defamiliarize language, formally reinforcing the conceit of the poem – a recovered, but damaged, CPU (central processing unit) – through fragmented, glitchy language. The poem begins:

> can they think
>
> animal language
>
> hoof. slug. enterprise.
>
> can machines, can they

claw. egg tooth. feral. (86)

With this opening line, as well as the subsequent line “can machines, can they,” Choi refers to the first sentence of Alan Turing’s landmark 1950 paper, “Computing Machinery and Intelligence,” in which he proposed what he called the Imitation Game, but what is now known as the Turing Test. Turing writes: “I propose to consider the question, ‘Can machines think?’” (433). The Turing Test acts as an anchor throughout *Soft Science*, with each section of the book beginning with a poem from the eponymously titled series, “Turing Test.” But here, in the collection’s final poem, Choi takes Turing’s question and dismantles the language, making it elliptical and fragmented. However, rather than simply producing incoherence, this fragmentation points to an expansion of meaning. By changing Turing’s specific question of “Can machines think?” to the elliptical “can machines,” Choi allows for almost infinite possibilities for completing this line (can machines feel, can machines dream, can machines…). The poem thus expands the machine’s value from one based on thought to one that recognizes an evolving spectrum of posthuman possibility.

Rather than assimilating Kyoko’s thought patterns to the conventions of human language, the poem questions how humans define language, advocating for a broader understanding of what constitutes communication, and, by extension, what constitutes thought. In what is by far the poem’s longest line, Choi writes: “The emergence of language, it’s generally assumed, history, art, symbolism, & so on, among many homonids [*sic*], or that selfsame hardwired solace, say, as other creatures” (88). This notably prosaic line gives the sense that it has been plucked from an encyclopedia or a journal article and stored in Kyoko’s memory, to be regurgitated word for word. While this line has ostensibly been written by a human, it lacks the beauty and the surprise of the rest of the poem; this contrast argues that the machinic can, in fact, have aesthetic

value. But even as the line appears prosaic, it, too, resists coherence, with an ungrammatical structure in which enough words have been dropped from the phrase to render it only partially comprehensible. It seems to suggest that the emergence of language allowed humans to develop history, art, symbolism, and other achievements of so-called civilization; at the same time, it suggests that "other creatures" – without human language – have produced that "selfsame hardwired solace." Machines, the poem suggests, can think, but the way they think may not be identifiable as a mode of thought within an anthropocentric framework.

In this final poem of the collection, Choi broadens her proposed alliance from human-machine to the human-machine-animal, reaching toward the natural world and arguing for its innate intelligence. Mid-way through the poem, Kyoko draws a comparison between machinic thought and the thought of nonhuman animals: "can chickens think….but do the bees know they are bees" (87). With these lines, Kyoko redirects the kind of language typically aimed at artificial intelligence – does it have consciousness? does the machine know that it is a machine? – to nonhuman animals. Formally underlining this connection, Choi constructs the line "can chickens think" to mimic the first line of the poem: "can they think." On first reading, the vague "they" in this opening line might seem to refer only to the machines that Kyoko represents, but the poem suggests that the "they" in fact represents a broader coalition of nonhuman entities (machine and animal) whose intelligence is consistently devalued in an anthropocentric framework that views language as aligned with intelligence. Importantly, it is Kyoko – a machine – who is able to form this alliance, suggesting not only that she has intelligence, but also an expansive sense of cross-species empathy. Choi ends the book, then, by hearkening back to Haraway's call for a "joint kinship" between animals and machines, expanding the scope of her project to decenter the

human and modeling a more empathetic interdependence between human, animal, and machine (154).

"In the future, no one is completely human": Dismantling the Category of the Human

With their embrace of the posthuman, Shin and Choi contest the carefully-guarded borders of personhood that have been delimited to a Western conception of the human as the white male subject. But rather than laying claim to the label of human – one that has long been denied to non-white humans in the West – Shin and Choi posit an alternate understanding that challenges the hierarchical and racialized categorization of humanity into human, not-quite-human, and nonhuman. As Alexander G. Weheliye writes, racialization has long been a process with the goal of "the barring of nonwhite subjects from the category of the human as it is performed in the modern west" (3). Instead of fighting for inclusion in a category that has been historically constructed to exclude people of color, Shin and Choi instead argue for the dissolution of hierarchical categorizations and the boundaries that sustain them.

But what does it mean to dismantle the liberal humanist notion of the human, rather than arguing for its expansion to marginalized groups such as women and racial minorities? A frequent criticism leveled at posthumanism is that it purports to transcend the human while people of color and women are still fighting to attain full humanity. But, as both Weheliye and Haraway argue, trying to gain acceptance in the Western configuration of the human (defined by Weheliye as the "heteromasculine, white, propertied, and liberal subject") is a losing proposition (135). Weheliye argues that the history of mainstream feminist, civil rights, and lesbian-gay movements demonstrates that a privileged minority can only be incorporated into the "ethnoclass of Man" at the expense of other marginalized populations, which include women of color, poor

African Americans, transgender people, and the incarcerated (81). In other words, under the Western conception of the human, someone must always be less-than-human and/or nonhuman. Thus, Weheliye writes, "If demanding recognition and inclusion remains at the center of minority politics, it will lead only to a delimited notion of personhood as property that zeroes in comparatively on only one form of subjugation at the expense of others, thus allowing for the continued existence of hierarchical differences between full humans, not-quite-humans, and nonhumans" (81).

With *Unbearable Splendor* and *Soft Science*, Shin and Choi radically reject the liberal humanist standards of what constitutes the human, bypassing demands for recognition and inclusion and instead positing new imaginaries of personhood and new alliances between human, nonhuman animal, and machine. "In the future, no one is completely human," writes Shin (70). Rather than arguing for a shared humanity, this provocative line envisions a new era in which liberal humanism's exclusionary definition of personhood has been abolished. For Shin and Choi, this is a future to look forward to, not to fear.

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