

2022

# Uncomfortably Close to Human: Robots and the Neocolonial Politics of Care

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## Recommended Citation

Park, Shelley. 2022. "Uncomfortably Close to Human: Robots and the Neocolonial Politics of Care." *Feminist Philosophy Quarterly* 8 (3/4). Article 11.

## Uncomfortably Close to Human: Robots and the Neocolonial Politics of Care<sup>1</sup>

Shelley M. Park

### Abstract

Social robots are marketed as human tools promising us a better life. This marketing strategy commodifies not only the labor of care but the caregiver as well, conjuring a fantasy of technoliberal futurism that echoes a colonial past. Against techno-utopian fantasies of a good life as one involving engineered domestic help, I draw here on the techno-dystopian television show *Humans* (stylized *HUMANS*) to suggest that we should find our desires for such help unsettling. At the core of my argument is a return of the “uncanny valley” problem, from its reformulation as an engineering/design problem to its origins as a psychosocial symptom of an unresolved, traumatic past. I conclude that our sense of the uncanny may be best understood as a moral capacity that should be honed rather than evaded.

**Keywords:** care robots, uncanny valley, psychoanalysis, sexism, racism, colonialism

*Could you use some extra help around the house? . . . This mechanical maid is capable of doing more than simply serving breakfast in bed. What could you accomplish if you had someone—something—like this?*  
—*Humans*, promotional trailer, 2015

*What if technology actually helped you, like a partner, instead of just being a tool? . . . Together, we can humanize technology.*  
—Promotional video for Jibo, “The World’s First Family Robot,” 2014

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<sup>1</sup> Thank you to the anonymous reviewers of this manuscript and to Carla Fehr, who provided the opportunity to workshop an earlier iteration of this paper in the miniconference on Feminism, Social Justice, and AI in July 2021. Many thanks also to the participants of that workshop whose interactions were both generous and generative, the participants in the International Association of Women Philosophers 2021 conference, and attendees at the 2018 Florida Philosophical Association meetings where I presented a nascent version of these ideas. Your suggestions and encouragement have greatly improved my thinking on these issues. Remaining shortcomings are solely my responsibility.

Much recent critical scholarship on AI and social justice has focused on the reproduction and amplification of injustice through algorithmic bias (e.g., Benjamin 2019; Howard and Borenstein 2018; Noble 2018; Criado Perez 2021) and/or the representational and other biases involved in robot design (e.g., Atanasoski and Vora 2019; Cave and Dihal 2020; Sparrow 2020; Strengers and Kennedy 2020). While AI algorithms (mind) and robotic design (body) are interrelated, this essay takes up the second project. Here I focus specifically on the embodiment (the look, the shape, the sound, the feel) of AI in an attempt to bring a traditional problem in robotic engineering (the uncanny valley problem) into a cross-disciplinary conversation with feminist and postcolonial explorations of the uncanny.

My analyses of the phenomenon of uncanniness will draw, in part, on representations of robots as found in science fiction, because cinematic portrayals of the uncanny have much to teach us about human fears and anxieties. But robots are no longer merely the stuff of sci-fi fantasy. We are living in the so-called age of robots; more specifically, we are living in an era of *social* robots. Once found only in industrial habitats, robots are rapidly entering our social sphere, including our homes. As the industrial economy gives way to a service economy, and as demands for care outpace our capacity for caring, the market for personal robots has boomed. Despite challenges to privacy and security posed by robots trained to recognize our faces, voices, and contours of our living spaces, and despite well-known problems of algorithmic and other biases in engineering human-robot interactions, the personal robotics market projects global revenues, of \$51.5 billion (USD) in 2030, up from \$21.5 billion in 2019 (Prescient and Strategic Intelligence 2020). The largest share of this growth is in social robots—personal robots that rely on machine learning (AI) to respond to human desires and that are designed to elicit an emotional connection with humans. The global social robotics market is expected to grow over 34 percent from 2021 to 2026, representing an \$11.2 billion market value, with North America witnessing the most rapid growth (Mordor Intelligence 2022). Technology forecasters predict over sixty-five million social robots will be sold annually by 2025 (*Scientific American* 2020). Social robotics investment is driven by many factors, including an aging population in the Global North, social isolation in work-centric cultures, social anxiety among young adults, demands for engaging educational software by the parents of young children, the novelty of new forms of entertainment, and a growing deficit of care workers. Social robots promise increased access to physical, cognitive, and emotional care within living environments from nursing homes to suburban domiciles.

This essay analyzes AI in the context of the care economy with a focus specifically on domestic robots as marketed to and purchased by private citizens. While automated institutional care, such as nursebots, also deserves our attention, these forms of robotics largely fall outside the scope of this paper. The adoption of

robotic technologies by hospitals, nursing homes, and other institutions is driven by profit-related motives and thus is often imposed on staff and clients, independently of their comfort with such care. I am interested here in the circumstances that shape citizen-consumer desire for (or alternatively fear of) robot carers. Attempting to determine when and why humans are sometimes attracted to and, at other times, repulsed by social robots is at the crux of what is known in engineering circles—following roboticist Masahiro Mori’s ([1970] 2012) coining of the term—as the problem of “the uncanny valley.”

In section 1, I sketch Mori’s ([1970] 2012) hypothesis concerning human repulsion at robots that come uncomfortably close to human likeness but still miss the mark, and I explore engineering workarounds that follow Mori’s advice to pursue nonhumanoid design. In section 2, I examine an alternative hypothesis for the cause of human discomfort with humanoid robots: their lack of appropriate affect. Hypothesizing that uncanniness derives not from the humanlike appearance of a social robot itself but instead from the apparent mismatch between consumer expectations (e.g., for a companion) and robot behavior (mechanistic), today’s robotics companies use a combination of design and marketing to persuade consumers that robots care for them. Convincing consumers that robots have feelings may, however, give rise to a third iteration of the uncanny valley—one that returns “uncanniness” from its formulation as an engineering/design problem to its origins as a psychosocial symptom of an unresolved, traumatic past. This is my focus in the second half of the paper.

In section 3, I shift my attention from the engineering and marketing of social robots to their depiction in recent popular culture. Through a feminist psychoanalytic reading of key scenes in the television series *Humans*, I argue that we might best understand human repulsion toward “synthetic humans” as a projection of our discomfort with *our own* inhumanity. Exploring viewer responses to the series’ fake ad campaign for synthetic humans, section 4 argues that consumer desires for care as a marketplace commodity should unnerve us. Drawing on postcolonial theorists’ uses of psychoanalytic theory, I suggest that our sense of uncanniness when faced with social robots may be a psychic echo of past colonial traumas. I conclude that our sense of the uncanny may need to be enhanced, rather than subdued, for us to hear those echoes. This is especially so insofar as emerging technologies necessitate, as well as mimic, gendered colonial encounters.

### **1. The Uncanny Valley as a Design Problem**

Unlike those of industrial robots, the capabilities of social robots depend on the human capacity to anthropomorphize them (Breazeal 2003; Turkle 2011). Social robots cannot function as playmates to children, helpers to elders, or companions to those who are, because of age, health, or circumstance, physically vulnerable or

socially isolated, unless we are willing to accept them as socially capable.<sup>2</sup> This makes what Masahiro Mori ([1970] 2012) termed “the uncanny valley” a major barrier to the mass marketing of socially interactive robots.

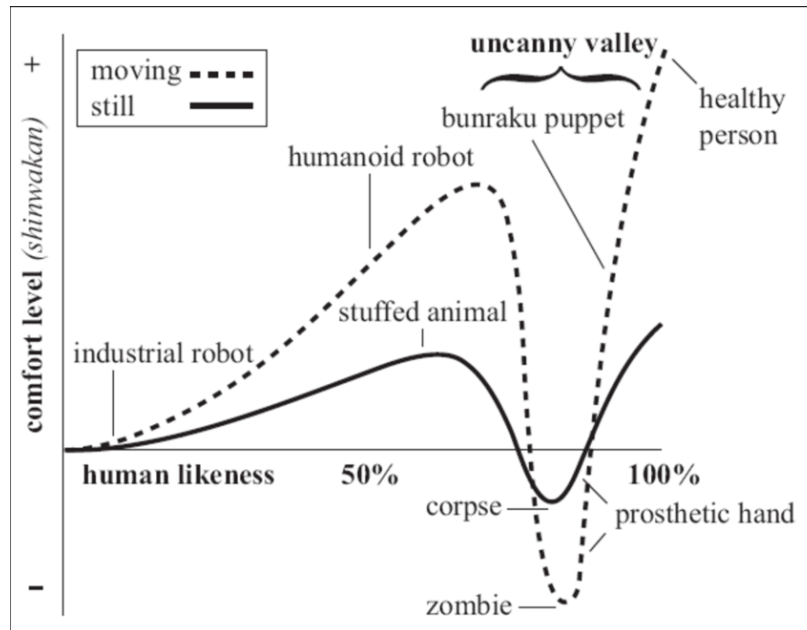


Figure 1. The uncanny valley graph by Masahiro Mori. Wikimedia Commons image by smurrayinchester (2007), based on image by Masahiro Mori and Karl MacDorman. Licensed under CC BY-SA 3.0.

The uncanny valley, as originally described by Mori, was a hypothesis concerning negative human reactions to human replicas (e.g., lifelike dolls, puppets, or robots) which appear *almost, but not exactly*, like real humans. While we might expect our affinity for the replica to steadily increase as the replica becomes more familiar, Mori conjectured that when a replica got too close to approximating human features, it would elicit discomfort in human observers. (See figure 1.) This unexpected dip in our affinity for the replica was the original referent for the term “uncanny valley”; more colloquial uses of the term refer directly to the phenomena of creepiness elicited by replicas that closely approximate human appearance yet miss the mark somehow. The phenomenon of human repulsion at robots that closely approximate human appearance while retaining a slightly inhuman element has

<sup>2</sup> This is not unique to robots but a corollary of a more general principle governing social capacities. As Frye (1983) notes, for example, the capacities of women and girls are directly linked to being treated as competent by (largely male) authorities. As Christian (2011) notes, to pass the Turing test (or a speed dating test), humans also need other humans to play along.

dominated both scientific research on and cultural depictions of social robots. Horror films and dystopian science fiction deliberately *elicit* our sense of the uncanny to creep us out; robot engineers seek ways to *avoid or suppress* our sense of the uncanny.

Mori ([1970] 2012, 100) suggests that the eerie sensation we get when an artificial replica of something human (say, a prosthetic hand) closely approaches—but does not replicate—its living human counterpart may be “an integral part of our instinct for self-preservation,” a sixth sense that protects us from “proximal sources of danger” such as “corpses, members of different species, and other entities we can closely approach.” Robot and prosthetics designers, Mori advises, may avoid human repulsion at their products by pursuing nonhuman design. Using eyeglasses as an example of a human prosthetic that fashions a new look rather than attempting to resemble “real eyeballs,” Mori suggests designers might stylize beautiful prosthetic hands that “bend freely at the joints” but still feel and look nonhuman (100).

Many robot designers have followed this advice, developing robots that move on wheels or have hands that grasp and gesture without attempting to mimic the look of flesh-covered human appendages. Consider, for example, Mitsubishi’s Wakamaru (released in 2005), a three-and-a-half-foot-tall robot with a wheeled bottom base, silver arms, and yellow hands, or the German Care-O-bot 3 (announced in 2008) with its boxy white body and three-fingered hands. Aldebaran’s robots, Nao (made publicly available in 2011) and Pepper (introduced in 2014) are more humanoid in form, designed “for natural and expressive movements,” but utilize cartoon-like characteristics to avoid verging into the uncanny valley (Aldebaran, n.d.). (See figure 2.)



Figure 2. Pepper. SoftBank Robotics Europe, 2016. Wikimedia Commons. Licensed under CC BY-SA 4.0.

More recent entries into the market have moved away from humanoid form, depending on expressive gestures to interact with humans. MIT's Jibo (released in 2017) is an eleven-inch, six-pound tabletop device whose "body" is made of aluminum, plastic, and glass and whose "face" is an LCD touchscreen using principles of Disney animation to bring it to life. Samsung's Ballie (introduced in 2020) is a yellow sphere, resembling a tennis ball (Condon 2020); its "companion" status is conveyed by beeping noises reminiscent of the fictional R2-D2 from *Star Wars*.

As these examples suggest, a robot's familiarity is not merely a matter of its physical dimensions and features but also the result of what it *says* or *does*. Despite more closely approximating a desktop computer than a human, Jibo responds to voice commands and touch, recognizes faces, and builds profiles on its users to better serve them. (See figure 3.) Initially marketed as "the World's First Family Robot," Jibo promised to entertain and educate children, help parents communicate with one another, provide home security, know its users' food (and other) tastes, and respond to the needs and commands of its human owner(s) (Jibo, Inc., n.d.).<sup>3</sup> Jibo's "helpfulness" was enabled by eliciting sympathetic reactions from humans; one commentator likens its appearance to the imagined "love child of Kenny from *South Park* and the robot Eve from *WALL-E*—small, rounded, spritely, mischievous" (Baker 2014). The orb on the touchscreen, he notes, is "remarkably adept at implying human facial expressions" (Baker 2014). As this description indicates, Jibo is viewed as harmless; he is anthropomorphized as childlike (cute, innocent) rather than intrusive (creepy, threatening).

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<sup>3</sup> Jibo is now owned by NTT Disruption; the new company is marketing Jibo as a health-care and educational assistant; see Carman (2020).



Figure 3. Jibo, "Your robotic assistant." Mark Mathosian (2014) Licensed under CC BY-NC-SA 2.0. Photo has been cropped for space.

This conceptualization of Jibo as harmless is facilitated in part by smart design (e.g., small stature and cartoonish features) but is not a matter of Jibo's appearance alone. Human acceptance of robots depends also on an appropriate match between a robot's appearance and its task (Goetz, Kiesler, and Powers 2003). Jibo's small stature, mischievous gestures, and childlike demeanor would be ill-suited to a robot tasked with helping to transport or bathe adults in need of mobility assistance. However, his appearance "fits" his social and entertainment functions, while



simultaneously distracting us from the privacy we sacrifice when inviting a profiling technology into our home. Similar considerations apply to Ballie. Much as Scarlett Johansson was well cast as the sultry voice who would personify everyman's *Her*,<sup>4</sup> Jibo and Ballie are well suited to the family-friendly role that they are asked to play.

## **2. The Uncanny Valley as a Marketing Problem**

According to Miriam Koschate and colleagues (Koschate et al. 2016), uncanniness derives from a mismatch between expectation and perception. In contrast to other machines, humanlike robots create the expectation of human nature. This expectation is violated by a lack of emotional expression. The addition of emotion thus decreases a sense of uncanniness. Witness the evolution of the German Care-O-bot. Care-O-bot 3 was a functional service robot able to provide mobility support or fetch and carry items for older users, yet it was gesturally stiff and emotionally unresponsive. (See figure 4.) In contrast, Care-O-bot 4 is depicted as a "gentleman" who detects mood and reacts with facial expressions and gestures. In Fraunhofer IPA's (n.d.) promotional video, the upgraded Care-O-bot holds out a red rose to a female client. (See figure 5.) Care-O-bot 4 is "flirtier" than his predecessor; it "won't just care *for* you . . . , it'll care *about* you too" (Borghino 2015)



Figure 4. Care-O-bot 3: "With new tray kinematics." Fraunhofer IPA (2012).

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<sup>4</sup> Jonze (2013). The audience would be considerably less likely to accept an operating system as a potential love interest had that system sounded like Edith Bunker or Gilbert Gottfried.

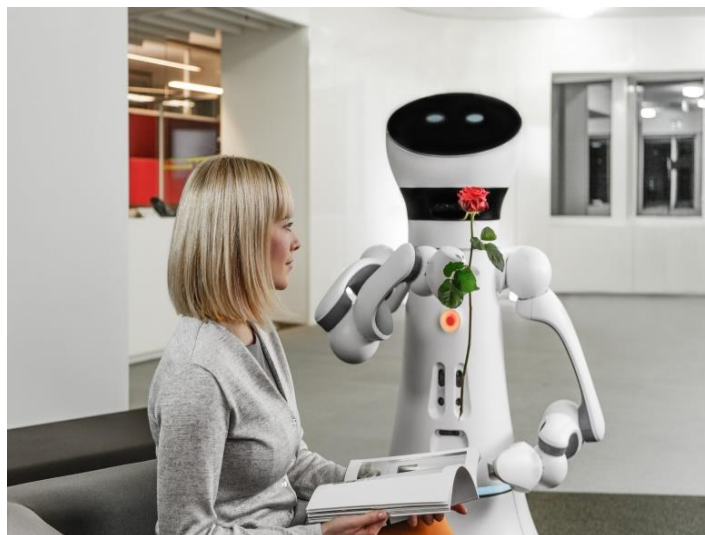


Figure 5. Care-O-bot 4: “Care-O-bot – The Service Robot.” Fraunhofer IPA (2015). Photo by Rainer Bez.

Similarly, the talking, gesticulating, self-moving Pepper is described as having an “emotion engine” to help it understand how people are feeling and react appropriately. Pepper will not clean or cook, but he will cheer you up by playing a favorite song or telling you a joke if you look sad. Pepper also performs robot rap songs and reads children stories. Advertised as a robot with “a heart,” Pepper’s goal is to be “a robot that maximizes joy and minimizes sadness” in his environment (Guizzo 2014).

Note that the potentially unnerving mismatch between human expectations of social interlocutors (as emotionally capable) and human perceptions of androids (as, well, robotic) is addressed by Fraunhofer, Aldebaran, and other companies largely through *marketing* strategies. As social robotics has evolved, solutions to the problem of the uncanny valley have shifted the focus from an engineering problem (how to build a robot that meets human expectations) to a problem of persuasion (how to manipulate human expectations and perceptions). Whether the machine *does*, in fact, care about us is less important than whether we *believe* it does—or whether we are willing, at least, to suspend disbelief and play along.<sup>5</sup> Such marketing strategies reduce our resistance to welcoming social robots into our homes. Yet persuading us to anthropomorphize domestic robots may give rise to another version of uncanniness. Gray and Wegner (2012) propose that robots with humanlike features may be unnerving *because* they prompt us to ascribe a mind to a machine. More

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<sup>5</sup> Passing the Turing test depends on the ability to deceive the interlocutor into believing the machine is human. This will depend as much on the interlocuter’s will to believe as it does on attributes of the machine itself (Turing 1950; Christian 2011).

specifically, they suggest that machines become unnerving when we ascribe experiences to them. We are less troubled, they suggest, by a robot's agency (its capacity to act and do) than by its experience (the capacity to feel and sense). In a nutshell, we are happy to have robots that *do* things but not robots that *feel* things. How are we to reconcile this with marketing strategies that explicitly encourage us to attribute feelings (emotion, heart) to robots?

It is tempting to suggest that Gray and Wegner are simply mistaken. Perhaps we were once unnerved by the ascription of an inner life to machines, we might argue, but now—squarely in the posthuman era—we no longer are so. Popular culture suggests otherwise, however. From 1982's *Blade Runner* to the more recent *Ex Machina*, *Black Mirror*, and *Westworld*, film and television continue to postulate conscious robots as an existential threat to humans. Below, I examine one example of this genre—the Channel 4/AMC television series *Humans*—to illuminate a partial truth in Gray and Wegner's claim. Whether we are comfortable attributing feeling to robots, I argue, may depend on *how* we personify them and *what* feelings plausibly accompany such a persona. In attributing minds to robots, we do so in selective ways that—for better and often for worse—parallel our habits of mind as humans, including our implicit biases.<sup>6</sup> Feelings of uncanniness may arise when we begin to sense these unconscious biases at work. As the cultural unconscious begins to surface and threatens to erupt into consciousness, we are—and should be—unnerved.

### 3. Synthetic Humans: The Uncanny as a Psychosocial Problem

Based on the award-winning Swedish science fiction drama *Real Humans*—the UK/US television program *Humans* (Vincent and Brackley 2015–2018) introduced us to a world in which synthetic (artificial) humans are routinely purchased as nannies, maids, gardeners, sex workers and health-care aides. In purchasing synthetic humans (“synths”) for help around the house, flesh-and-blood humans quickly discover that these helpers can do much more than routine domestic tasks. Bonded with their primary users at time of purchase, these effective, attentive, and aesthetically flawless caregivers tuck children into bed and provide sexual satisfaction for lonely spouses.

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<sup>6</sup> Implicit biases may take many forms but are most typically subconscious associations that cause us to have feelings and attitudes about other people based on characteristics such as race, ethnicity, gender, age, and appearance. It is unnerving to have these revealed as they are often at odds with our explicitly stated beliefs about other groups and individuals and thus also at odds with our sense of self. For analyses of how this cognitive dissonance can lead to white self-defensiveness and fragility, see Hamad (2020) and DiAngelo (2018). For analyses of how implicit bias gets encoded into AI algorithms, see Noble (2018) and Howard and Borenstein (2018).

The availability of synth technology leads to an ideologically divided nation and familial tensions over technological adoption. Early adopters of the technology enjoy the assistance, comfort, and convenience such technology provides: synths provide physical and emotional care for their users that is not otherwise readily available. Other humans are more technophobic, fearing (with good reason) that human-synth relationships may replace human-human relationships. Mothers, lovers, and other paid and unpaid caregivers cannot compete with the skill and attentiveness of their synthetic counterparts. One thread of the series deals with these experiences of human displacement. Another thread—and my focus here—concerns experiences of subjugation and dehumanization suffered by minoritized populations tasked with the care of humans.

*Humans'* creators have indicated that they do not intend the series to be read as a futuristic science fiction drama. On the contrary, the series is intended to depict a “parallel present” (Miller 2015). Indeed, the world that *Humans* depicts looks very much like our own, except for the presence of synthetic caregivers whose uncanny resemblance to humans is a source of potential discomfort both to the human protagonists and to the viewing audience. Especially unnerving is how closely the relationship between synths and their human users mirrors the gendered and racialized relationships between human caregivers and those who have historically benefitted from their care.

At the center of the series is Anita, a synth (played by Gemma Chan and thus resembling an Asian American woman) who serves as a live-in nanny and maid for the Hawkinses, a white, middle-class family.<sup>7</sup> (See figure 6.) The wife (Laura), initially jealous, treats Anita as a potentially dangerous intruder, while the attention deprived husband (Joe) enjoys and exploits the full range of her services. In the fourth episode of the series, Joe discovers an 18+ service package in his synth owner’s guide and “activates” Anita’s adult-only services. This makes her receptive to his commands. But as he kisses her and then mounts her on the sofa, she lies inert. She does not refuse him, but neither does she show any signs of pleasure. She gazes blankly over his shoulder as he thrusts into her, in a seeming fugue state. As he finishes using her, he looks uncomfortable. Certainly, we the viewers are. She meets his gaze briefly, offers

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<sup>7</sup> Anita is the name she is given as a product—the name by which she is branded and thus comes to be owned. Her “real” or original name is Mia. The process of renaming those whose labors we appropriate is reminiscent of the colonial treatment of slaves and indentured servants and continues to be common practice in neocolonial regimes. As Mia awakens to her subjugation and becomes part of an active resistance, she reclaims her original name.

a faint but unconvincing smile, instructs him how to “turn her off,” and asks if she may use the bathroom to clean up.<sup>8</sup>



Figure 6. *Humans* AMC Billboard. Brecht Bug (2015). Licensed under CC BY-ND 2.0.

In his 1919 essay *The Uncanny*, Sigmund Freud describes the uncanny (*das Unheimliche*, the unhomely) as what is concealed and frightening in the familiar and

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<sup>8</sup> Viewers of this scene have described it variously as “shocking,” “titillating,” “risqué,” “fascinating,” “cringey,” and “awkward” (see, e.g., Gray 2015; Hastings 2015; Lee 2015). Some have focused on the weirdness of sex with robots, some on Joe’s fumbling awkwardness, some on Joe’s infidelity. Few commentators have identified the scene as a rape scene, although that is quite clearly what it is. Joe’s unease (and along with it, the discomfort of many viewers) would presumably be subdued had Anita been programmed to display sexual pleasure—and thus behaved in ways aligned with normative (male) expectations. But reducing male discomfort (by promoting the idea that “she enjoyed it”) won’t change the sexual act into a consensual one, as I argue below.

agreeable (or vice versa).<sup>9</sup> The uncanny, he suggests, is what unconsciously reminds us of our own id, our forbidden and thus repressed impulses. That which is experienced as uncanny is perceived as an external threat to our superego. However, our sense of uncanniness and the rejection of the monstrous as Other is, in fact, a projection of our own repressed impulses onto something or someone else who then becomes a scapegoat for our own miseries. On *Humans*, Anita and her fellow synths are precisely such scapegoats, serving as convenient targets for suspicion and blame that divert attention from the taboo desires and everyday atrocities committed by humans themselves. The glittering luminescence of their artificial eyes marks *them* as creepy, as does the eerily calm and unnervingly precise way in which they move and speak (Keller 2015). Especially unsettling are Anita’s attempts to display happiness. Foreshadowing the rape scene earlier described, Anita laughs at a lame joke that Joe makes during her first meal with the Hawkins family. But her laugh gets stuck on repeat, revealing itself as inorganic and shifting the mood of the family meal from relaxed and playful to awkward, uncomfortable silence in a matter of seconds. The smiling countenance with which she routinely greets both Joe and Laura is never quite convincing and immediately disappears when their backs are turned.

Anita’s unconvincing smiles reveal what Hochschild (2012) describes as the domestic worker’s alienation from the emotional labor they are expected to perform. It is her job to make others happy by appearing happy (Ahmed 2017). Her failure to do this convincingly makes those around her uncomfortable. However, it is our *own* ability to disassemble—to pretend, for example, to care (about strangers, friends, or lovers) when we do not, that should unnerve us. In unnerving ways, *Humans* reminds us of our *own* inhumanity and what Arendt (1963) aptly terms the banality of evil.<sup>10</sup> It is deeply uncomfortable to witness a “synth” nanny be “activated” to sexually pleasure a man who has purchased her. Because of the uncanny resemblance

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<sup>9</sup> Freud ([1919] 2003). Interestingly, Mori’s analysis of the uncanny valley does not reference Freud’s analysis of the uncanny. Indeed Mori had never read (or heard of) Freud’s essay, *Das Unheimliche*, until several decades after writing his own article, “Bukimi no tani gensho” (“The Uncanny Valley”). See Jochum and Goldberg (2016).

<sup>10</sup> What makes Joe’s rape of Anita so unsettling is how utterly mundane such (hetero)sexual coercion is. Like Joe, many men assume it is their prerogative—perhaps even responsibility—to “turn on” women. And like Anita, many women may not see refusal as a live option, thus passively—albeit not enthusiastically—accepting male advances. There may be little pleasure involved. Yet it is a truth of women’s ordinary experience that risks to our well-being increase when we fail to smile, clean ourselves up, and move on as if nothing is amiss. These risks multiply when one’s existence is precarious, when, like Anita, one can be “deactivated” (fired, blacklisted, incarcerated, deported, killed) by those who expect sexual favors as their prerogative.

between synths and humans, the activation of a synth's sexual program by a "user," signifies much more than a harmless act of self-pleasuring. Because she is "bound" to her "primary user," the synth cannot resist his desire; under such circumstances, the vacant, emotionless look in the synth's eyes as the man thrusts into her no longer signifies her creepiness; instead, *he* now becomes creepy.<sup>11</sup> So too does the parallel present that this (and other such scenes) represents.

Julia Kristeva (1982, 1991) draws on psychoanalytic analyses of the uncanny to develop her notion of abjection—a phenomenon wherein one reacts adversely to that which has been cast out of the symbolic order as unintelligible (i.e., disruptive to social reason). For Kristeva, the abject (e.g., human waste, a corpse, the foreigner, and, we might add here, a synth) exists in a liminal space between subject and object as the taboo elements of the self from which we try to distance ourselves. While not everything that is abject is uncanny, we experience the abject as uncanny when we recognize ourselves within that which we have cast off as Other. When we are forced to face the abject—that which was once a part of us but is now repulsive—it is traumatic. We are "unhomed" by a breakdown in the distinction between what is self and what is other. Forced to confront the stranger within, we are horrified. As developed by Kristeva, the concept of abjection may be used to describe both physical and cultural processes whereby one separates self (me, us) from other (you, them).

Borrowing from Kristeva's theory of abjection, Judith Butler (1990) argues that the boundaries of the (gendered, racialized) self are formed by its violent expulsion of the "not me," giving rise to homophobia, sexism, and racism. Home—the space in which one lives and is at ease, the space wherein subjects are formed—is a center that simultaneously produces beings who are not subjects, who live unlivable lives and inhabit uninhabitable spaces. The white male body is the body that matters, and its mattering depends on treating other bodies as if they are out of place.

A feminist psychoanalytic account of the uncanny helps us to tease out why and how we are sometimes made uneasy by attributions of experience and feelings to socially interactive robots (synths). For Joe to acknowledge that Anita had aims, objectives, and experiences independent of his own would be to countenance his own behavior as repulsive. His subjectivity, his ability to be at ease with himself, at home

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<sup>11</sup> Joe's creepiness is underlined by juxtaposing his rape of Anita with the attempted rape of another synth by teenage boys at a party, an attempted rape that is foiled by the fact that they do not have adult male privileges and are, moreover, called out on being creeps by a teenage girl not yet conditioned into silent complicity. The greater capacity for creepiness of adult men with greater powers is further illustrated when Joe arranges to send Anita back to the factory to be deactivated (now becoming a potential murderer as well as a rapist) to cover up his sexual misconduct.

with himself, *depends on* objectifying her.<sup>12</sup> However, maintaining a firm distinction between (human) self and (synthetic) other is difficult to reconcile with the *simultaneous* need to anthropomorphize (humanize) robots. Social robots can only assist us insofar as we welcome them into our homes and our lives and treat them as socially capable. And yet, welcoming them into our homes as a genuine member of the family threatens to unhome us.

Thinking about a different science fiction genre, Sara Ahmed (2000) describes our “close encounters” with alien life forms as a space of *ambivalence*. On the one hand, the alien represents the danger of the unknown (including our unknown psychic interiors as well as unmapped foreign territories). On the other hand, the alien is “a source of fascination and desire” (Ahmed 2000, 2). What is at stake, in the ambivalence of human-alien relationships—and, I’d argue, in the ambivalence of human-robot relationships too—“is not whether [the Other] is represented as good or bad, or as ‘beyond’ or ‘within’ the human, but how they function to establish and define the boundaries of who ‘we’ are in their very proximity” (Ahmed 2000, 3). The question is not whether we can design robots to replicate (or serve) humans in less unnerving ways; it is, rather, whether we can transform ourselves (and our desires) in response to being unnerved.

From a psychoanalytic perspective, such processes of human transformation depend on facing our shared past.<sup>13</sup> This colonial past is marked by the violent

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<sup>12</sup> Under these circumstances, it is unsurprising that Joe’s reaction to his postcoital discomfort is to escape that discomfort by removing the offending reminder from his home. As Joe attempts (ultimately unsuccessfully) to have Anita “deactivated” (thereby objectifying her a second time), he appears to remain uneasy—although it is not clear whether Joe’s unease is linked to his mistreatment of his wife (his infidelity) or his mistreatment (sexual assault) of Anita or both. Joe’s sense that he has done *something* wrong positions Joe as a sympathetic albeit flawed character. However, we can—and *Humans* does—imagine circumstances in which users’ sense of entitlement to sexual (or other) services is never disturbed by a sense of unease. Neither the clientele nor the owners of synth brothels, for example, ever signal discomfort at using trafficked synths for sex. Similarly, few of the other humans who own synth housekeepers, gardeners, or companions appear to be uncomfortable with behaviors that would be considered exploitative, coercive, or abusive were synths to be accorded subjectivity of their own. Treating synthetic humans as objects is relatively easy when one has already been taught to objectify flesh-and-blood humans. As I argue in the next section, the uncanny arises when we sense the parallels between our technological present and our colonial past.

<sup>13</sup> The “out-of-place-ness of strange bodies opens out the temporality of the bodily encounter. . . . [Close encounters with strangeness] slide not only through space



dehumanization of those assigned caregiving labors.<sup>14</sup> “We” may—indeed, do—have vastly different relationships to this past, and “our” psychic (and material) injuries are not the same.<sup>15</sup> Yet, we are historically entangled in these stories of violence, and failing to acknowledge this may—and often does—lead to repetitive injuries in the present. Encounters with the uncanny may signal that we are engaging in such processes of repetition.

#### **4. Uncanniness as the Haunting of Our Present by the Past**

The parallel present depicted by *Humans* is a technologically infused future that (like the social robotics industry itself) is haunted by the past. This comes out most vividly in the 2015 advertising blitz for the series. In thirty-second television commercials—part of a broader marketing strategy including print ads, billboards, a physical store, social media accounts, actors paid to transport cyborg look-a-likes through London, and a mock eBay auction—a fake company (Persona Synthetics) advertised androids described as “closer to humans than ever before.” (See figure 7.) “Meet Sally. The help you’ve always wanted,” a soothing female voiceover says, as an attractive brunette with a piercing but somewhat vacant gaze is seen folding sheets, chopping carrots, organizing kitchen canisters, and serving dinner (Persona Synthetics 2015; Newell 2015). “Sally is faster, stronger and more capable than ever before.” She is also “part of your family—a helper, a teacher, a friend,” the voice continues, as we watch Sally take care of the family’s children. The fake advertising campaign elicited one hundred thousand searches for the product on Google, and a half million visits to the website, where the campaign was revealed to be a hoax (Nudd 2015).

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(bodily space leaks into social space), but also through time (the present encounter reopens past encounters)” (Ahmed 2000, 53).

<sup>14</sup> I am not suggesting that caregiving is always or necessarily a site of violence or dehumanization. Caring may be life-affirming in nonexploitative, consensual circumstances. This was not the circumstance of those assigned the labors of care under colonial regimes, nor is it the circumstance under neocolonial regimes.

<sup>15</sup> Collective pronouns are always troublesome—and yet collective work cannot be done without it. First person language fuels individualism rather than dialogue; third person language too often obscures the investments of the author. (See, e.g., Lugones 2003, 226 ff). Nonetheless, as Ahmed (2006, 17) cautions, “we” often functions as a Eurocentric construct that includes via a process of violent exclusion. I hope to have avoided this here but am acutely aware of what Singh (2018, 172) calls the “masterful snares” of the collective voice—even when used, as intended here, to describe an aspirational, heterogenous “we” conjoined only in the tenuous hope that we might imagine a future in which the violence of the past does not endlessly repeat itself.



Figure 7. *Humans* Store front. Persona Synthetics, Ben Richards (2017). Licensed under CC BY-NC-ND 4.0.

According to *Adweek*, the “creepy ads” for synthetic humans “freaked out” many Britons who mistook them for real (Nudd 2015). So what was creepy about the ads? To be sure, Sally’s somewhat vacant stare and expressionless face—she tries to smile but never convincingly—is creepy. To fully understand what is uncanny here, however, one needs to place Sally’s unconvincing smile (like Anita’s unnerving automated laughter) in a historical context.

The “creepy ads” featuring Sally also evoke a gendered and racialized history of domestic labor. Gendered divisions of domestic labor in the Western world dictated that women in white middle-class families in the 1950s should aspire to nothing more (nor less) than becoming happy homemakers. In more recent decades, paid work (sometimes in the form of careers, sometimes not) became desirable and often necessary for women in the West (and elsewhere); yet women have remained responsible for “managing” the domestic help who now serve as their (happy homemaking) proxies. Sally’s attempts to smile while carrying out household chores evokes the image of a *Stepford wife*, while her inability to do so *convincingly* evokes the fear that the purchaser may be leaving her children with a psychopath. (At the end of the ad, as Sally heads up the staircase with a small child, the lighting and music

feels ominous.) The promised technological future is haunted by a past (and “parallel present”) wherein gendered expectations demand that women smile, even as they carry disproportionate domestic responsibility for meager or no remuneration. Sally, we rightly perceive, fails to adequately meet that expectation. Her failure to live up to gendered expectations *reveals* cracks in the deteriorating infrastructure of the private sphere—leaving us with the eerie (and perhaps accurate) sense that she may carry resentment that will eventually disturb the domestic peace.<sup>16</sup> At the same time, Sally’s whiteness *conceals* the historical fact that this domestic peace has been largely built—in the Western world—on the backs of women of color. From the enslaved Black women who nursed, fed, and reared white slaveholder’s children during the colonial era to the South Asian and Latina women who work as nannies and maids for today’s professional class families, the history of white homemaking has relied on the domestic servitude of racial Others. (Anita’s casting more accurately renders a parallel present, in this regard, than does Sally.)

As Robert Sparrow (2020, 147) argues, and Sally embodies, “The visual race politics of contemporary robots . . . is at odds with the historical race politics of robots” as servile. From the original mechanical Turk in the eighteenth century to Rastus the mechanical “servant” in the twentieth century, robots were historically racialized as Black or brown. Indeed, the word “robot” traces back to a Czech word meaning “worker” or “slave.”<sup>17</sup> Although our current, technoliberal era frequently obscures the engendering and racialization of AI through design that abstracts away from the human form, techno-utopian futures continue to be marketed, Atanasoski and Vora (2019) suggest, in ways that employ a “racial grammar” and produce a “surrogate human effect.” Humanoid robots become human surrogates, performing social and other labors that enable the liberal subject to be free, but “whose freedom

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<sup>16</sup> Note that viewer unease is prompted here not by the suggestion that a synth *has* emotions but instead by evoking fears that the caregiving synth may harbor the *wrong* emotions. The prospective consumer for Sally wants her—like Jibo, Pepper, and other existing social robots—to be perpetually happy and bring nothing but joy into the home. Unease is created here through the intimation that Sally is not happy and will not confer happiness on others. Like Niska—a robot prostitute who kills a John and leaves the brothel to which she has been assigned early in the series, Sally threatens—quite literally—to be or become what Ahmed (2017) terms a feminist killjoy.

<sup>17</sup> The word originates from a 1920 play (*R.U.R.: Rossum’s Universal Robots*) by Czech playwright Karel Čapek. The play was about humanlike machines that rebel against their master (a theme that continues to be well trod). Čapek is credited with creating the word “robot” from a Czech word, “robota,” variably translated as slavery, serfdom, and drudgery. The term was not changed when the play was translated into other European languages.

is possible only through the racial unfreedom of the surrogate” (Atanasoski and Vora 2019, 5).

This “unfreedom” is captured by the Persona Synthetics website created as part of the *Humans* fake ad campaign.<sup>18</sup> On that website, two models of synth were advertised “for sale.” Both had “all-day batteries” and “fully customizable personalities;” one (Sally) was a white female synth, the other (Charlie) was a Black male synth. Both were advertised as available for purchase as a “lifestyle choice” at a temporary storefront in London that included life-size models. These “closer to human than ever before” prototypes were also advertised as up for auction on eBay (Walker 2015). All of this—but most notably the idea of auctioning a Black body considered to be almost but not quite human as domestic “help”—*should* feel creepy. However, not everyone was equally unsettled.

Some who had been taken in by the fake ad campaign were relieved to discover that synthetic humans did not (yet) exist. However, other website commentators were disappointed. “I want one!” responded a reader named cyborggirl. “This would do wonders for the elderly, disabled and general struggling human. . . . I hope this is a test on the reaction for the real thing” (Walker 2015). An online poll asking if the reader would like a synth elicited 40 percent positive answers (ibid.). What does it mean to *want* such an advertising campaign to be true and to be *willing*, even *eager*, to purchase such prototypes?

This wanting is both old and new, both intelligible and disconcerting. Humans have always needed and wanted care. Indeed, this basic observation is at the heart of feminist arguments to include care as a morally salient category in ethical theorizing. Those who are very young or very old, those who are ill, and those who are disabled (namely, all of us during—at least—some periods of our lives) require care to survive. The desire for care reflects human vulnerability and dependency on others as a fact of life; as such, it is neither shameful nor illegible. We rely on others for physical and material survival and for emotional and psychological well-being. Our sense of self arises, develops, and is sustained in the context of human relationships. In general, we see ourselves as competent, worthy, or loveable when we are treated as such—by primary caregivers, by friends and lovers, by coworkers and employers, and by social institutions and their agents. The desire for care speaks to our desire to be in relationship with others who will recognize and respond to our needs and entrust us with the responsibility to do the same. All of this is uncontroversial.

What is unsettling in cyborggirl’s desire—a desire which is not, of course, hers alone—is the longing for care *as a product to be bought and sold in the marketplace*. Rather than a longing for human relationship, this desire bespeaks a longing for care

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<sup>18</sup> A capture of the website is available on the Internet Archive’s Wayback Machine at <https://web.archive.org/web/20150514185030/http://www.personasynthetics.com/>.

that demands nothing—not even gratitude or simple recognition—in return. What the fictional Sally and Charlie promise is superhuman strength and efficiency combined with subhuman status; they will do everything the consumer wants without requiring that the user treats them as moral subjects. As the increasing demands on our time make it ever more difficult to care adequately for ourselves or others, it is understandable that we might seek assistance. And, for those who can afford them, Sally and Charlie may seem just the technological miracles (“lifestyle choices”) we seek. However, the desire to purchase a synth, not merely as a machine but *as a member of our family* (“a helper, teacher, friend”), is more than a little creepy.<sup>19</sup>

Note that this holds *whether or not* the product in question resembles a human. Mori believed the problem of the uncanny valley could be avoided by engineering prosthetic designs that maintained distance from the human form. But as Jochum and Goldberg (2016) note, the “representational uncanny” (triggered by objects that *look* almost but not quite lifelike) is only one version of uncanniness; our sense of the uncanny may also be triggered by objects that seem to have human capacities or awareness. The social robotics industry is likely to unleash this sense of the “experiential uncanny” insofar as it actively encourages us to treat machines *as if* they are capable of caring. Social robots (unlike industrial ones) depend, for their efficacy, on people relating to robots via roughly the same social schemas they use to relate to people (Sparrow 2020). As earlier indicated, social robots can only care for us if we anthropomorphize them. Thus, consumers are encouraged—by engineers and advertisers—to treat social robots simultaneously as subjects (human companions) and as objects (commodities for purchase). This creepiness is neither accidental nor easily resolved. Indeed, it is deeply woven into the very fabric of techno-solutionist approaches to the problem of the caregiver labor shortage. Echoing Homi Bhabha’s (1994) analysis of the so-called “mimic men” under British imperialism in India, social robots are “just like” fully human subjects but “not quite.”<sup>20</sup>

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<sup>19</sup> Male scholars waxing on about sex and love with robots is similarly a little creepy; see, e.g., Levy (2007).

<sup>20</sup> The term “mimic men” refers to “a class of interpreters between [the British empire] and the millions whom [they] govern[ed]—a class of persons Indian in blood and colour, but English in tastes, in opinions, in morals and in intellect” (Bhabha 1994, 124; quoting Thomas Babington Macaulay’s 1835 “Minute on Indian Education”). These Indian subjects were able to do the bidding of the English by virtue of being Anglicized. But their Anglicization simultaneously revealed them as *not* English. Their capacity to mimic the British made them both desirable and threatening (see “Bhabha 1994, ch. 4, esp. 124–25).

Like feminist theorists, postcolonial theorists have drawn on Freud's concept of the uncanny to elucidate the psychic and cultural results of repressing our past. Bhabha (1994), for example, draws on Freud's concept of the uncanny to describe the disorientation that results from a breakdown in the distinction between home and world. Broadening Freud's discussion of trauma beyond the personal to see its roots in political formations, Bhabha (1994, 13–27 and passim) describes the disorientation attending xenophobia as a feeling of being "unhomed." Like Freud's uncanny, Bhabha's unhomely resides at the edge of what is knowable because of repression. Our unwillingness to speak about the unspeakable, says Bhabha, leaves a "hole" in the fabric of our social, as well as psychic, realities; this can only be repaired by releasing the "un"spoken from erasure and reinscribing it within the known, the familiar.

Bhabha's postcolonial rendering of our sense of unhomeliness has elements in common with Frantz Fanon's (1968) insistence that politics and psychology are inseparable. Only by articulating the psychic life of the colonial encounter, says Fanon, are we able to undo the damage of that traumatic encounter. Fanon does not suggest, nor am I suggesting, that there is a singular psychic wound nor a singular colonial encounter. The contact zones of colonialism (and of neocolonialism in our parallel present) are varied and harm those who encounter one another in them in widely disparate ways. The harms done by settler colonialism, by white supremacy, and by anti-Blackness are not the same harms, and it makes a difference how we are positioned under these historical and contemporary structures. Without flattening these differences, I am suggesting—alongside Fanon and others—that the legacies of colonialism will continue to haunt our social encounters, doing damage to both/all the colonized and the colonizers, until we collectively confront the horrors of our shared histories and the perverse desires they produce.

The perverse desires generated by the historical and contemporary structures of colonialism are also numerous. My focus here is on just one of these—namely, the desire to purchase care as a fetishized, marketplace commodity dissociated from the social contexts and relational practices that produce and are produced by human networks of care. The specter that haunts *Humans*, I have argued, is not the social cost of humanizing the inhuman (the synth); it is the inhumanity of humans that causes (and should cause) us discomfort. At the center of this fictional drama about a "parallel present" are a series of ethical and political questions concerning our own experiences and practices of care (and carelessness) in an era wherein the echoes of past traumas reverberate in our technological dreams.

## 5. Conclusions

To understand why and how we are made uneasy by socially interactive robots, it is helpful to remember that social robots and their users have parallels in

human-human relations. Insofar as human divisions of labor have historically been racialized and gendered, our expectations concerning the (visual, auditory, gestural, and even emotive) appearance of the human or humanlike entity performing certain tasks will likewise have a complexion and a gender, even if only implicitly (Park 2021). This isn't always obvious in the engineering laboratory—especially where design solutions to the uncanny valley problem involve staying a safe distance from the human form. However, it becomes explicit when we shift our attention from robots themselves to our cultural discourses surrounding social robotics (e.g., advertising campaigns and television shows). These discourses reveal gendered and racialized desires that inform consumer expectations. Moreover, because robots can only perform social functions by virtue of human tendencies to anthropomorphize them, these popular discourses are part of the design of the social robots themselves.

Consumer expectations of the technologies that care for us are, I have suggested, somewhat creepy. We may thus be “unhomed” at the same time that we seek to bring technology into our homes to help us. Any twenty-first century version of the good life that incorporates dreams of robotic assistance will need to contend with the ways in which such technologies unnerve us. To date, the uncanny valley has been approached primarily as an *engineering* and, more recently, a *marketing* problem. I have suggested here that we return instead to uncanniness as a *psychoanalytic* concept and consider that psychological dramas are largely inseparable from the social, cultural, and historical circumstances in which they develop and unfold. More specifically, I have suggested that our sense of the uncanny is related to the discomfort of sensing a past that we believed was safely stowed away, reemerging into our present as the perverse desire for care as a fetishized commodity.

If these suggestions are correct, then the distinction between techno-utopians and techno-dystopians is miscast as a disagreement about the extent to which emerging technologies are trustworthy, reliable, and conducive to living well or poorly. It is also misunderstood as a distinction between those who are seduced by technology (technophiles) and those who are fearful of it (technophobes). The distinction between techno-utopianism and techno-dystopianism is better understood, perhaps, as marking differing affective sensibilities— affective sensibilities that may be triggered by encounters with humanoid technologies but are only superficially, at best, about the technology itself. Our respective ease or unease with socially interactive robots is, at a deeper level, a reflection of our ability to sense past and present injustices. This ability could be considered a moral capacity—one that, it is reasonable to suppose, is often better cultivated in those at higher risk of harm by structural injustices but may be underdeveloped in many twenty-first century denizens who have grown dependent on technological assistants.

I've focused here on past rather than present injustices, emphasizing the ways in which social robots and their representations in advertisements, television, and

film may unsettle us by evoking histories of chattel slavery, indentured servitude, and domestic and sexual violence against women. But the violent extraction of care from vulnerable populations by those who are more privileged and powerful is far from past. Crawford's (2021) materialist analysis of the "colonial mapping logics" of AI demonstrates the human and nonhuman costs of technocapitalism. The extraction of rare minerals from the earth extends settler colonization and hastens the destruction of Indigenous lands globally, as does the toxic waste from lithium batteries and other material residue of AI. Working conditions inside mines and the dehumanization and surveillance of factory and warehouse workers resemble plantation slavery, as does the nonconsensual extraction of biometric and affective data from prisoners and others, dead and alive. The human-robot "social" relationship, thus, does not merely *mimic* the objectification of some humans by others; it also *necessitates* it. Crawford and Joler's (2018) excruciatingly detailed account of the production of Alexa—a now commonplace smart home technology—illustrates how social robotics embodies the banality of evil: social injustice occurs at *every step* of the long and complex supply chains that bring domestic assistance to our fingertips. Global regimes of servility and precarity are the cost of now-ubiquitous consumer demand for cheerful robotic companionship and assistance with tasks such as dimming the lights or playing one's favorite music.<sup>21</sup>

Many of us know this—not in detailed accuracy; global supply chains are intricate and almost impossible to follow, even for the industries that depend on them. But we nonetheless *know* in that inarticulate way that we know in our bones or can feel in our gut when a relationship is not quite right. Yet we (many, perhaps most, of us) are unmoved by this knowing.<sup>22</sup> If I am right about this, social justice may depend—in part—on designing robots that heighten rather than reduce our sense of the uncanny, leaving us less "at home" with our intimate relationship to AI.

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<sup>21</sup> Note that solutions to algorithmic injustice will leave this injustice intact or even worsen it. Training Alexa to interact more equitably with a more diverse range of voices, for example, could increase consumer demand for a product that depends on environmental degradation, workforce exploitation, the destruction of self-sufficient communities, consumer surveillance, etc.

<sup>22</sup> There are, no doubt, many different reasons for our failure to be moved, depending on who "we" are. But one clear problem—related to the concerns I am raising in this essay—is what Taylor Rogers (2021) refers to (adapting the term from José Medina [2012]) as "affective numbness."



## References

- Ahmed, Sara. 2000. *Strange Encounters: Embodied Others in Post-Coloniality*. London: Routledge.
- . 2006. *Queer Phenomenology: Orientations, Objects, Others*. Durham, NC: Duke University Press.
- . 2017. *Living a Feminist Life*. Durham, NC: Duke University Press.
- Aldebaran. n.d. "Pepper." Accessed November 25, 2022. <https://www.aldebaran.com/en/pepper>.
- Arendt, Hannah. 1963. *Eichmann in Jerusalem: A Report on the Banality of Evil*. London: Faber & Faber.
- Atanasoski, Neda, and Kalindi Vora. 2019. *Surrogate Humanity: Race, Robots, and the Politics of Technological Futures*. Durham, NC: Duke University Press.
- Baker, Billy. 2014. "This Robot Means the End of Being Alone." *Popular Mechanics*, November 18, 2014. <http://www.popularmechanics.com/technology/engineering/robots/why-the-jibo-robot-means-the-end-of-being-alone-17437592>.
- Benjamin, Ruha. 2019. *Race After Technology: Abolitionist Tools for the New Jim Code*. Medford, MA: Polity.
- Bhabha, Homi K. 1994. *The Location of Culture*. London: Routledge.
- Borghino, Dario. 2015. "Care-O-bot Gets an Upgrade, Now Flirtier and Available with Optional Second Arm." January 20, 2015. <https://newatlas.com/care-o-bot-flirty-robot/35662/>.
- Breazeal, Cynthia. 2003. "Toward Sociable Robots." In "Socially Interactive Robots," edited by Terry Fong and Illah Nourbakhsh, special issue, *Robotics and Autonomous Systems* 42, no. 3–4 (March): 167–75. [https://doi.org/10.1016/S0921-8890\(02\)00373-1](https://doi.org/10.1016/S0921-8890(02)00373-1).
- Butler, Judith. 1990. *Gender Trouble: Feminism and the Subversion of Identity*. New York: Routledge.
- Čapek, Karel. 2004. *R.U.R. (Rossum's Universal Robots)*. Translated by Claudia Novack. Introduction by Ivan Klima. London: Penguin Books.
- Carman, Ashley. 2020. "Jibo, the Social Robot That Was Supposed to Die, Is Getting a Second Life." *Verge*, July 23, 2020. <https://www.theverge.com/2020/7/23/21325644/jibo-social-robot-ntt-disruptionfunding>.
- Cave, Stephen, and Kanta Dihal. 2020. "The Whiteness of AI." *Philosophy & Technology* 33, no. 4 (December): 685–703. <https://doi.org/10.1007/s13347-020-00415-6>.
- Christian, Brian. 2011. *The Most Human: What Artificial Intelligence Teaches Us about Being Alive*. New York: Random House.
- Condon, Stephanie. 2020. "CES 2020: Samsung Rolls out 'Ballie' the Robot to Demo Its Vision for Human-Centered Tech." ZDNet, January 6, 2020. <https://www>

- .zdnet.com/article/ces-2020-samsung-rolls-out-ballie-the-robot-to-demo-its-vision-for-human-centered-tech/.
- Crawford, Kate. 2021. *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence*. New Haven, CT: Yale University Press.
- Crawford, Kate, and Vladan Joler. 2018. "Anatomy of an AI System: The Amazon Echo As An Anatomical Map of Human Labor, Data and Planetary Resources." AI Now Institute and SHARE Lab, September 7, 2018. <http://www.anatomyof.ai>.
- Criado Perez, Caroline. 2021. *Invisible Women: Data Bias in a World Designed for Men*. New York: Abrams Press.
- DiAngelo, Robin. 2018. *White Fragility: Why It's So Hard for White People to Talk about Racism*. Boston: Beacon Press.
- Fanon, Frantz. 1968. *Black Skin, White Masks*. New York: Grove Press.
- Fraunhofer IPA. n.d. "Care-O-bot 4." Fraunhofer Institute for Manufacturing Engineering and Automation. Accessed July 7, 2017. <https://www.care-robot.de/en/care-o-bot-4.html>.
- Freud, Sigmund. (1919) 2003. *The Uncanny*. Translated by David McLintock. Foreword by Hugh Haughton. New York: Penguin Classics.
- Frye, Marilyn. 1983. *Politics of Reality: Essays in Feminist Theory*. Trumansburg, NY: Crossing Press.
- Goetz, J., S. Kiesler, and A. Powers. 2003. "Matching Robot Appearance and Behavior to Tasks to Improve Human-Robot Cooperation." *RO-MAN 2003: Proceedings of the 12th IEEE International Workshop on Robot and Human Interactive Communication*, 55–60. Piscataway, NJ: Institute of Electrical and Electronics Engineers. <https://doi.org/10.1109/ROMAN.2003.1251796>.
- Gray, Hugo. 2015. "Did You See That Shocking Robot Sex Scene in Humans, Channel 4's New Sci-Fi Hit?" *Future of Sex*, July 10, 2015. <https://futureofsex.net/robots/did-you-see-that-shocking-robot-sex-scene-in-humans-channel-4s-new-sci-fi-hit/>.
- Gray, Kurt, and Daniel M. Wegner. 2012. "Feeling Robots and Human Zombies: Mind Perception and the Uncanny Valley." *Cognition* 125, no. 1 (October): 125–30. <https://doi.org/10.1016/j.cognition.2012.06.007>.
- Guizzo, Erico. 2014. "Meet Pepper, Aldebaran's New Personal Robot with an 'Emotion Engine.'" *IEEE Spectrum: Technology, Engineering, and Science News*, June 5, 2014. <https://spectrum.ieee.org/pepper-aldebaran-softbank-personal-robot>.
- Hamad, Ruby. 2020. *White Tears/Brown Scars: How White Feminism Betrays Women of Color*. New York: Catapult.
- Hastings, Chris. 2015. "No Sex Please, We're British Robots! Cyborgs in Channel 4's New Humans Series Get Naked Far Less Than Those in Sweden." *Daily Mail* online, June 28, 2015. <https://www.dailymail.co.uk/news/article-3141734/Cy>

- borgs-Channel-4-s-Humans-prudish-robots-Swedish-version-Akta-Manniskor.html.
- Hochschild, Arlie Russell. 2012. *The Managed Heart: Commercialization of Human Feeling*. 3rd ed. Berkeley: University of California Press.
- Howard, Ayanna, and Jason Borenstein. 2018. "The Ugly Truth about Ourselves and Our Robot Creations: The Problem of Bias and Social Inequity." *Science & Engineering Ethics* 24, no. 5 (October): 1521–36. <https://doi.org/10.1007/s11948-017-9975-2>.
- Jibo, Inc. n.d. "Jibo Robot—He Can't Wait to Meet You." Accessed August 26, 2017. <https://www.jibo.com>. Preserved by Internet Archive at <https://web.archive.org/web/20170831213858/https://www.jibo.com/>.
- Jochum, Elizabeth, and Ken Goldberg. 2016. "Cultivating the Uncanny: The *Telegarden* and Other Oddities." In *Robots and Art: Exploring an Unlikely Symbiosis*, edited by Damith Herath and Christian Kroos, 149–75. Singapore: Springer.
- Jonze, Spike, dir. 2013. *Her* Burbank, CA: Warner Bros, 2014. DVD, 126 minutes.
- Keller, Jared. 2015. "AMC's Humans Dives Headlong into the Uncanny Valley." *Maxim*, June 25, 2015. <https://www.maxim.com/entertainment/amcs-humans-dives-headlong-uncanny-valley/>.
- Koschate, Miriam, Richard Potter, Paul Bremner, and Mark Levine. 2016. "Overcoming the Uncanny Valley: Displays of Emotions Reduce the Uncanniness of Humanlike Robots." In *HRI '16: The Eleventh ACM/IEEE International Conference on Human-Robot Interaction*, 359–66. Piscataway, NJ: Institute of Electrical and Electronics Engineers. <https://doi.org/10.1109/HRI.2016.7451773>.
- Kristeva, Julia. 1982. *Powers of Horror: An Essay on Abjection*. Translated by Leon S. Roudiez. New York: Columbia University Press.
- . 1991. *Strangers to Ourselves*. Translated by Leon S. Roudiez. European Perspectives series. New York: Columbia University Press.
- Lee, Ann. 2015. "There Was a Robot Sex Scene in Humans and Everyone Freaked Out." *Metro*, July 5, 2015. <https://metro.co.uk/2015/07/05/there-was-a-robot-sex-scene-in-humans-and-everyone-freaked-out-5281711/>.
- Levy, David. 2007. *Love + Sex with Robots: The Evolution of Human-Robot Relations*. New York: HarperCollins.
- Lugones, María. 2003. *Pilgrimages/Peregrinajes: Theorizing Coalition against Multiple Oppressions*. Feminist Constructions series. Lanham, MD: Rowman & Littlefield.
- Medina, José. 2012. *The Epistemology of Resistance: Gender and Racial Oppression, Epistemic Injustice, and Resistant Imaginations*. Oxford: Oxford University Press.

- Miller, Liz Shannon. 2015. "How 'Humans,' a TV Show about Robots, Is Really about Family." *IndieWire*, June 28, 2015. <https://www.indiewire.com/2015/06/how-humans-a-tv-show-about-robots-is-really-about-family-248013/>.
- Mordor Intelligence. 2022. "Global Social Robots Market - Growth, Trends, COVID-19 Impact, and Forecasts (2022–2027)." Accessed May 30, 2022. <https://www.researchandmarkets.com/reports/5120156/global-social-robots-market-growth-trends>.
- Mori, Masahiro. (1970) 2012. "The Uncanny Valley." Translated by Karl F. MacDorman and Norri Kageki. *IEEE Robotics & Automation Magazine* 19, no. 2 (June): 98–100. <https://doi.org/10.1109/MRA.2012.2192811>.
- Newell, Antonio J. 2015. "Persona Synthetics: Human Robots Service Company? [Video]." *Inquisitr*, June 1, 2015. <https://www.inquisitr.com/2129345/persona-synthetics-human-robots-service-company-video/>.
- Noble, Safiya. 2018. *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York: NYU Press.
- Nudd, Tim. 2015. "These Creepy Ads for Synthetic Humans Have Britain All Freaked Out." *Adweek*, May 13, 2015. <https://www.adweek.com/creativity/these-creepy-ads-synthetic-humans-have-britain-all-freaked-out-164721/>.
- Park, Shelley. 2021. "More than Skin Deep: A Response to 'The Whiteness of AI.'" *Philosophy & Technology* 34, no. 4 (December): 1961–66. <https://doi.org/10.1007/s13347-021-00485-0>
- Persona Synthetics. 2015. *Persona Synthetics TV Commercial: The New Generation*. Uploaded May 8, 2015. YouTube video, 30 seconds. [https://www.youtube.com/watch?v=vc7k-DwrlTI&feature=emb\\_logo](https://www.youtube.com/watch?v=vc7k-DwrlTI&feature=emb_logo).
- Prescient & Strategic Intelligence. 2020. "Personal Robots Market Research Report: By Offering, Type—Global Industry Analysis and Growth Forecast to 2030." Accessed May 30, 2022. <https://www.researchandmarkets.com/reports/5201172/personal-robots-market-research-report-by>.
- Rogers, Taylor. 2021. "Knowing How to Feel: Racism, Resilience, and Affective Resistance." *Hypatia* 36, no. 4 (Fall): 725–47. <https://doi.org/doi:10.1017/hyp.2021.47>.
- Scientific American*. 2019. "Top 10 Emerging Technologies of 2019." *Scientific American* 321, no. 6 (December): 26–37. <https://www.scientificamerican.com/article/top-10-emerging-technologies-of-2019/>.
- Singh, Julietta. 2018. *Unthinking Mastery: Dehumanism and Decolonial Entanglements*. Durham, NC: Duke University Press.
- Sparrow, Robert. 2020. "Do Robots Have a Race? Race, Social Construction, and HRI." *IEEE Robotics & Automation Magazine* 27, no. 3 (September): 144–50. <https://doi.org/10.1109/MRA.2019.2927372>.

- Strengers, Yolande, and Jenny Kennedy. 2020. *The Smart Wife: Why Siri, Alexa, and Other Smart Home Devices Need a Feminist Reboot*. Cambridge, MA: MIT Press.
- Turing, A. M. 1950. "Computing Machinery and Intelligence." *Mind* 59, no. 236 (October): 433–60. <https://doi.org/10.1093/mind/LIX.236.433>.
- Turkle, Sherry. 2011. *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books.
- Vincent, Sam, and Jonathan Brackley. 2015–2018. *Humans*. TV series, 24 episodes. London: Channel 4; New York: AMC Studios.
- Walker, Danny. 2015. "Channel 4's Persona Synthetics Ad for Humans Could Be the Best TV Promo We've Ever Seen." *Mirror*, May 9, 2015. <http://www.mirror.co.uk/tv/tv-news/channel-4s-persona-synthetics-ad-5669676>.

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