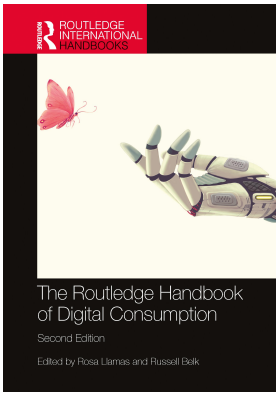

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Transhumanism and the phenomenology of cyborg senses

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TRANSHUMANISM AND THE PHENOMENOLOGY OF CYBORG SENSES

Vitor M. Lima

Introduction

"Can you feel it?" One may then reply to this question with another: "Feel what?" In this short imagining, I am referring to magnetic fields, radiation, ultraviolet and infrared lights, infrasounds, the moving tectonic plates, the earth's rotation, and where true north is. These phenomena are all around us, but are not naturally perceived unless mediated by technological prostheses. As human beings, we need sonar to locate nonvisible objects, pens to write, lenses to amplify microorganisms, thermometers to measure the temperature, calculators to perform complex calculations, Google to search for online information, and so forth (Clark 2004). Because of our "unfinished, unstable, indeterminate, and incomplete" human biological nature, we are a technologically aided species (Müller 2016). This means that not only is our perception of the world subjugated to environmental constraints, but it is also subjugated to our individual biological inheritance (Merleau-Ponty 1962). Thus, our embodied experiences of life are mediated through and limited by our senses of sight (Howes and Classen 2013), hearing (Knoeferle and Spence 2021), touch (Classen 2012), taste (Gronow 1997), and smell (Classen, Howes, and Synnott 1994).

However, proponents of transhumanism—a social and philosophical technophilic movement (Deretić and Sorgner 2016)—argue that one's being-in-the-world should not be limited by evolutionary biological outcomes (or constraints). To overcome the current human biological condition, transhumanists state that humanity must pursue the freedom of "intelligent evolution" by designing themselves (Vita-More 2021). The human body should be integrated with technology (e.g., biocompatible microchips) to create or amplify a given capacity to do something different from the norm. The resulting being of this type of integration is a cyborg—a human–machine hybrid able to do things that are impossible for biological humans (Clynes and Kline 1960). Because our bodies are a point of departure when it comes to experiencing the world (Merleau-Ponty 1962), some early cyborgs have explored novel ways to perceive and make sense of their existence by adding to or enhancing their sensory organs. As declared by a collective of cyborgs, "[W]e believe that by creating new senses we reveal a reality that our natural senses don't allow us to perceive" (Cyborg Foundation 2021).

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It is fair to acknowledge that consumer researchers have been conceptualizing and investigating consumer sensorial and embodied experiences for a long time (e.g., Hirschman and Holbrook 1982). From somatic experiences and imagination (Joy and Sherry 2003), the role of pain in extraordinary experiences (Scott, Cayla, and Cova 2017), and to the embodiment of consumer knowledge (Llewellyn 2021), consumer culture scholars have discussed how the different aspects of human senses can shape our being-in-the-world. Nevertheless, so far, the cyborg sensoriality that goes beyond the five senses remains undefined, unknown, and undertheorized. Here, I ask the following: How do cyborgs conceive of their new sensory organs? What is it like to feel something that human beings cannot feel? How are their interactions with the social world transformed by these new senses?

Based on four examples of cyborgs and my experiences with having a microchip implanted in the left hand since 2019, I map the experience of expanded senses. To do this, Merleau-Ponty's (1962) notion of embodiment, one's lived experiences mediated through the body, sustains the theoretical background of this chapter; it helps organize the reports of four distinct modes of cyborgian embodiment: designing, adapting, habituating, and risking. Here, the theoretical contribution is twofold. First, the goal is to prompt discussions and conceptualizations of cyborgs not as metaphors but as actual living beings (Hables-Gray, Figueroa-Sarriera, and Mentor 2020). Second, it also contributes to further discussions and theorizations of embodiment by showing the role of emerging technologies in shaping cyborgian consumers' being-in-the-world (Waters 2015).

The remainder of the chapter proceeds as follows: first, I provide a literature review of transhumanism and cyborgs in consumer research. Then, I identify the potential shortcomings of the current literature on embodiment to outline the theoretical background for this chapter. Next, I present the modes of cyborgian embodiment. The chapter ends with the implications for the discussions on technology consumption in consumer research and suggestions for future studies.

Transhumanism and cyborgs

Transhumanism—a timely but fairly neglected topic in consumer research (Belk, Humayun, and Gopaldas 2020; Schmitt 2019)—is a techno-progressive movement that sees the current human biological condition as genetically unstable and incomplete (Deretić and Sorgner 2016). Across its multiple definitions, transhumanism holds that humans must (re)design themselves not by means of *using* technology, but by *becoming* technology (Manzocco 2019; Vita-More 2021; Yetisen 2018). In this vein, to overcome the "faulty" human condition, transhumanism enthusiasts have been developing smart drugs (Castelo, Schmitt, and Sarvary 2019), brain implants to merge humans with artificial intelligence (AI) (Musk 2019), microchip implants to enable data exchange from inside the human body to smart devices (Lima, Pessôa, and Belk 2020), genetic engineering techniques to "cure" aging and eliminate diseases (Manzocco 2019), cryonic suspension services to postpone death (Alcor 2020), and even a way for potentially becoming immortal through uploading one's mind (Cave 2020).

Here, a common point connecting all of these possibilities is the principle of morphological freedom. According to More (1998), morphological freedom is the right and ability to alter the human body at will through emerging and speculative technologies. For some scholars of transhumanism, by fundamentally changing the limits of a human's embodied existence, humanity can achieve a new level of biological evolution (More and Vita-More 2013). Currently, a common manifestation of morphological freedom is the cyborg but not in the ways seen in previous marketing and consumer research (e.g., Botez, Hietanen,

and Tikkanen 2020; Campbell 2010) that draws on Haraway's (1985) metaphorical figure. Rather, cyborgs can be seen as machine-like humans (Belk 2014, 2017), cybernetic organisms that are changed by combinations of drugs, electronic data processing, and biomechanical cybernetics (Clynes and Kline 1960).

Despite pursuing this metaphorical cyborg figure, prior consumer research has not gone far enough to pursue biological cyborgs who integrate humans and technologies or to examine their sociological, cultural, and psychological consequences of altering their bodies. For the purposes of this chapter, the discussion about the cyborg genealogy relates only to cyborgian *additions* and *enhancements* (Hables-Gray et al. 2020). The main reason for this framing is that in both situations, cyborgs embrace morphological freedom and exert their agency to foster well-being by promoting biotechnological self-modifications (More 1998). In the case of restorative medicine (Riener 2016) or cosmetic procedures (Giesler 2012), cyborgian modifications have little or no connection with the principle of morphological freedom as portrayed in this chapter.

To illustrate such cyborgian modifications, Table 4.1 presents four self-identifying prominent cyborgs and their characteristics. Although some of them do not agree with many aspects of transhumanist philosophy (see Alcaraz 2019; Giger and Gaspar 2019; Lee 2019), all believe and follow the principle of morphological freedom (More 1998).

Table 4.1 Cyborgs' Profiles

Name	*Cyborg sensory organs*	*Cyborg senses*	*To know more*
Neil Harbisson	1 Antenna implanted in the head. 2 Magnet implant in one knee. 3 A crown attached to his head.	1 Listening to colors and sending and receiving files from the internet. 2 Sensing vibrations when facing the geographical north. 3 Sensing heat on his head because of the earth's rotation and solar time.	https://youtu.be/ygRNoieAnzI Try his Eyeborg App: http://bit.ly/EyeborgApp
Moon Ribas	1 Biocompatible microchip implanted in her left elbow. 2 Biocompatible microchip implanted in her feet.	1 Sensing vibrations triggered by seismic activity of the moon. 2 Sensing vibrations whenever there is an earthquake higher than 1.0 on the Richter scale.	https://youtu.be/O92DEeTcTQg
Liviu Babitz	1 Northsense—Cybernetic device attached to his sternum. 2 Sentero—Cybernetic device as an exosense (wearable)	1 Sensing vibrations when facing the north pole. 2 Sensing vibrations when sending or receiving data, leading to a new sense of orientation.	https://youtu.be/DDEhVJxYgEQ
Rich Lee	1 Magnet implants in his tragus (ears). 2 Magnet implants in his fingers. 3 Lovetron9000—a cybernetic device implanted in his pelvis.	1 Listening to music without headphones and receiving data wirelessly into his head. 2 Sensing vibrations because of magnetic fields and radiation. 3 Pubic vibrator that gives cyborgasms.	https://youtu.be/PHreVOBdlOk

From the *addition* perspective, some cyborgs develop and implant new body parts to reshape their perceptions, cognition, and lived experiences (Alcaraz 2019). This is the case of Neil Harbisson's implanted antenna to listen to colors, for example. On the other hand, the idea of *enhancement* could be traced back to the original conceptualization of cyborgs, in which Clynes and Kline (1960) first sought to reconfigure humans to withstand the rigors and dangers of space travel. The central tenet of this type of cyborgization is to enhance the actual capacity to do something over the general norm. Here, Rich Lee's magnet implants in his fingers to enhance his tactile sensation illustrate this type of cyborgian modification.

Embodiment and interactions with the world

Merleau-Ponty's phenomenological premise about the body is that it is "where we see the world and where we reside" (Merleau-Ponty 1960, 165). At least for the time being (Waters 2015), the organic human body is our primary medium for sensing the world and experiencing our singular existence. As explored in prior consumer research, for our human sensorial capacities, we, as human beings, can see a sculpture in a museum, discern it, and contemplate its shape (Joy and Sherry 2003). Because of our hearing capacity, we can listen to music and lose ourselves in deep emotions (Patterson and Larsen 2019). In addition, if we want, we can feel our bodies touching others while dancing together (Goulding, Shankar, and Elliott 2001). For better or worse, our taste can take us back to our childhood and spark memories of distant occasions (Vignolles and Pichon 2014). Through our sense of smell, we are placed in "spatial assemblages of bodies, locations, and experiences" (Canniford, Riach, and Hill 2018, 234), such as a sunset in the summer (Stevens, Maclaran, and Brown 2019). For Merleau-Ponty (1962), thus, sensing sensations is the beginning of our being-in-the-world, for it is a form of prereflective communication between the human body and the social world. Here, bodily perception assumes a prominent role in this notion because we do not *have* bodies; instead, we *are* our bodies (Merleau-Ponty 1962).

To observe the interconnection of the development of cyborg senses, perception, and action, the notion of embodiment (Merleau-Ponty 1962), which is the way the living body with its shape and innate capacities exists in the world, serves as the theoretical background. As seen in prior consumer research (e.g., Liu 2019), Merleau-Ponty's (1962) phenomenology comprises three levels of embodiment: physical attributes, habit (or skill) acquisition, and habit. Regarding physical attributes such as shape and size, Roux and Belk (2019, 483) investigate how tattoos at different locations on the body enable those with tattoos to experience singular "utopian dreams of beautification, escape, conjuration, and immutability." Because we are inserted into a demanding world that provokes questions and problems that must be solved, such as climbing stairs, we need to acquire skills to interact with these issues (Dreyfus 1996). Bhatnagar, Tillotson, and Toyoki (2018) show how consumers' routines are influenced by their bodily condition, such as its lactose intolerance. Because of this health issue, some people need to acquire certain skills, such as where, what, and when to eat, thereby avoiding involuntary episodes of burps, farts, stools, vomit, and feelings of intense pain.

Merleau-Ponty's (1962) offers the notion of the intentional arc as a reference to the tight connection between the perceiving body and world, in which the skilled active body acts in response to the world's solicitations. Once such a connection has achieved an optimum equilibrium, a habit is formed (Dreyfus 1996). We, as human beings, have a tendency to seek an optimal gestalt in our everyday experiences to avoid "tensions" and avoid entering disequilibrium. Looking at this point, Dreyfus (1996, 113) says, "[W]hen we are looking at something, we tend, without thinking about it, to find the best distance for taking in both

the thing as a whole and its different parts." This is what Merleau-Ponty (1962) calls maximum grip. Thus, a habit presupposes that our actions are completely geared into the demands of the situation and requires no mandatory thinking to happen. Nevertheless, our existence is always situated in time and place, which shapes our distinct modes of being-in-the-world (Landowski 2005).

Modes of cyborgian embodiment

The modes of cyborgian embodiment are defined as the possibilities of experiencing distinct nuances of the levels of embodiment that are influenced by emerging and speculative technologies. In this chapter, as illustrated in Figure 4.1, these modes comprise four possibilities: designing, adapting, habituating, and risking.

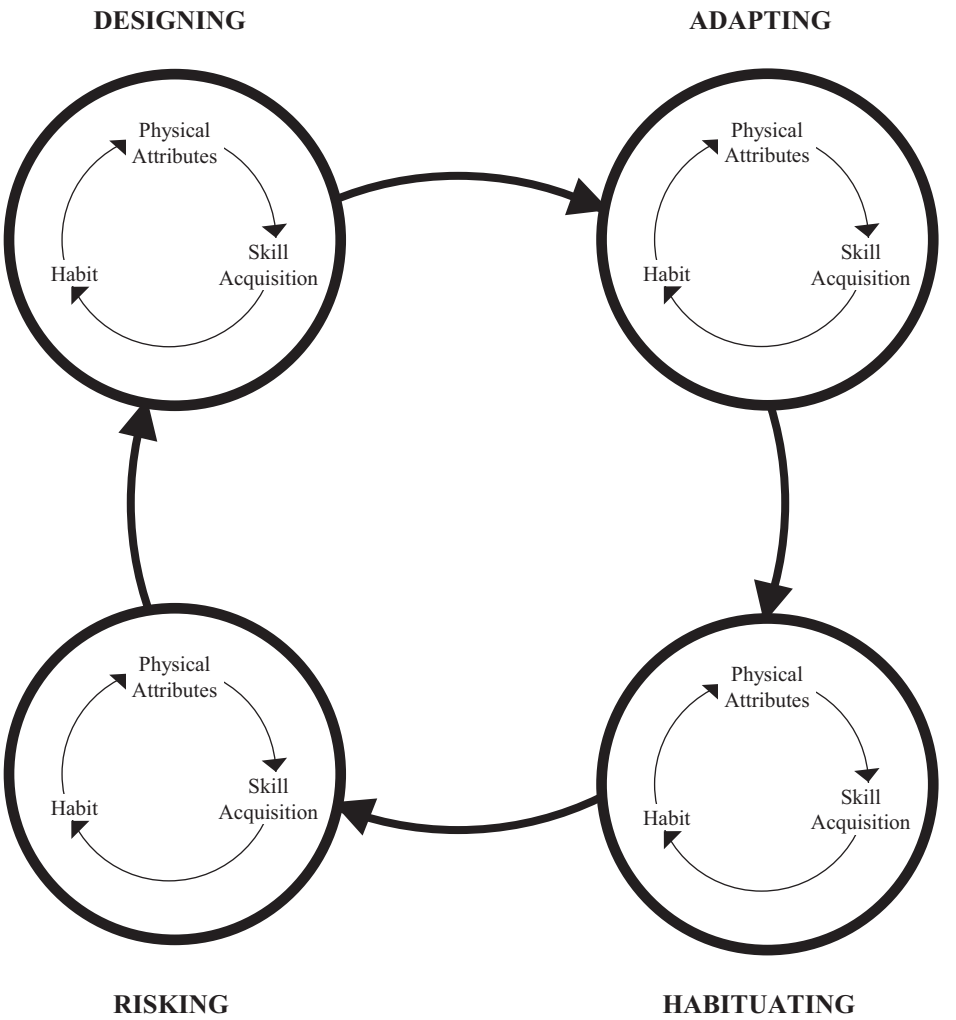

Figure 4.1 Modes of cyborgian embodiment
Source: Own elaboration.

Following the principle of morphological freedom and desire to expand their existence (More 1998), cyborgs design sensorial organs to create new or enhance their old bodily perceptions of the world. After the surgical implantation procedure, a series of voluntary and involuntary adjustments between the old organic body and the inorganic new body part take place. Over time, a new habit is formed, and cyborgs enter into equilibrium with the environment, complying not only with a sociocultural world, but also with their biological setting. However, life may be unpredictable, and to tackle surprising challenges and opportunities, cyborgs need to react and (re)design their sensorial organs to keep living as human–machine hybrids. In what follows, each mode is explored in more detail.

Designing

The mode of designing comprises the situated embodied agency to manipulate the physicality of the human body and things, thereby actualizing the principle of morphological freedom (More 1998). In other words, it is the mode in which there is the intention to make something happen (Landowski 2005), which, in this case, is to add or enhance a sensorial organ. In the case of cyborgs, the inspiration to attempt their modifications mostly came from science fiction (e.g., Doktor Sleepless graphic novel) and nature (e.g., dolphin echolocation). For example, Moon Ribas is a cyborg activist who has the capacity to sense vibrations triggered by seismic activity of the moon and from earthquakes. Much of her inspirations and desires to go beyond the human biological limits of the body have come from nature. As mentioned in her TED talk, the idea of becoming more connected with the planet is grounded in the belief that all of us—humans and nonhumans—are living and connected organisms (see Ribas 2019).

Merleau-Ponty (1962) claims that bodily perceptual capacities are responsible for our knowledge and, accordingly, the creation of our social realities. In this vein, following Moon Ribas' beliefs, if we change our understanding of ourselves, we may change our understanding of the lived world. Neil Harbisson, who was born with a form of complete color blindness, often shares his ideas about creating a new sensorial organ to allow him to listen to colors. His intention was not to cure or solve his health condition but rather to expand his phenomenological experience of existence (see Harbisson 2012).

As in the case of Neil Harbisson's intention to amplify such a cyborgian existence, cyborgs must conceptualize, prototype, test, and then implant their new body part. Here, the implantation procedure can be seen as the beginning of the cyborg's intentional arc (Merleau-Ponty 1962), which, as Joy and Sherry (2003) highlight, is the ongoing imagination and ability to respond to situations. As part of their skill acquisition, cyborgs' creative processes involve using a prototype for a given period and then implanting it into their bodies. For example, in 2016, Neil Harbisson started to research and develop a new sensorial organ to sense the passage of time. His cyborgian body part—the Solar Crown—began as a wearable headband, then as a necklace, and, in the future, will be a subdermal device to be implanted around his head (see Harbisson 2016a). Such a phased body intervention reflects the interconnections between the physical attributes of his body and the processes of skill acquisition, habituation, and mastery over his new body part.

Just like Neil Harbisson, other cyborgs often mention their creative and painful process of implantation (Popper 2012). Little or no anesthesia, sharp scalpels, thick needles, bone drills, many stitches, and an incredible amount of blood are just the beginning of a long process of adjustment between the body and its cyborg sensorial organ.

Adapting

In the mode of adapting, cyborgs experience a symbiotic process of adjustment between their sensing bodies and materiality of the implants that cause sensations. Both the body and implant can be seen as two actants that have the capacity to mutually influence each other in "becoming one" (Landowski 2005). To achieve such a condition of embodied coexistence, bodily and intellectual skill acquisition are fundamental (Dreyfus 1996). In this vein, adaptation to the cyborgian addition or enhancement has a learning curve that sometimes cannot be told but instead can be felt. Rich Lee, who has an enhanced auditory capacity because of "implanted magnetic headphones" in his tragus, still experiences issues regarding the volume. Since the implantation procedure in 2013, he has been trying to find an adequate size and shape of the magnets to have a better auditory experience (Lee 2013). For such a unique experience, not only Lee, but also other cyborgs frequently mention the difficulty in naming and describing their sensations (Eternal Life Fan 2015).

To an extent, this is similar to the response of the 1920s precursor of modern dance, Isadora Duncan, when asked what her dance meant: "If I could say it, I wouldn't have to dance it" (Farnell 1999, 147). In the case of magnetic-induced sensations, some cyborgs call it the *magnetic sense*. Merleau-Ponty (1962) argues that language is an essential manifestation of lived experiences whereby we, as human beings, project ourselves toward the world. In the case of Neil Harbisson's adaptation period for his implanted antenna, he created a term for this unique phenomenon: *antennaache*, which is a pain in his antenna (Rutkauskas 2016). After many months of terrible headaches and some confusion, he then perceived the changes in his proprioception—the ability to sense the position of his body parts (Tuthill and Azim 2018).

As Joy and Sherry (2003, 263) mention, Merleau-Ponty sees "perception as both a physiological event and an intellectual judgment because every object of perception is embedded in a context." Regardless of whether it is a magnet implant, antenna, or other cybernetic device, the skillful cyborgian body eventually adapts to its new body part and acquires the necessary skills to interact and coexist with the environment anew.

Habituating

The mode of habituating is grounded in the equilibrium between the skillful cyborgian body and the environment, conforming not only to a sociocultural world but also biological settings. This mode of embodiment is shaped by a set of actions without thinking about the goal, which presupposes regularity and stability (Landowski 2005). Here, the motivation that guides cyborgs' actions is based on the notion of maximum "grip"—the tendency to respond and bring the situation closer to the optimal gestalt that the person has learned to expect (Merleau-Ponty 1962).

On acting without thinking, or when a habit is constituted (Merleau-Ponty 1962), Liviu Babitz's experiences are an example. In his case, the cyborg organ attached to his chest vibrates when facing magnetic north, which he takes for granted and does not think about it anymore; he just feels and goes wherever desired (Babitz 2017). Not only Liviu Babitz but also other cyborgs clearly refer to the centrality of their additions or enhancements to their being-in-the-world as cyborgs. Rich Lee (Eternal Life Fan 2015), for example, said, "I feel like all of my implants are part of me." And then he goes further: "I have this sense of ownership, you know. It's part of my body. Once you get the magnet, the world becomes magnetic porn."

Rich Lee's psychological ownership (Morewedge et al. 2021; Peck and Shu 2018) and pornographic metaphor for interacting with the world can be seen as a description of Merleau-Ponty's (1962) notion of the habitual (prereflexive existence) and actual body (reflexive existence). Here, such an orientation toward the world involves a dialectic between the habitual and actual body, which Merleau-Ponty (1962) refers to as "I can" rather than "I think" as a mode of being. As a result, cyborgs experience the reconfiguration and resignification of their body schema—a prereflexive system of bodily movements and spatial equivalences (Merleau-Ponty 1962).

Risking

The mode of risking is based on the experience of aleatory events that may temporarily or permanently disrupt one's habitual bodily actions. Some surprising events are completely unpredictable and uncontrollable, but some can be expected (Landowski 2005). Because of these disruptions, for better or worse, there is always the risk of breaking the nexus between the habitual body and actual body (Merleau-Ponty 1962). As an example, Moon Ribas had some challenges with her *seismic sense* when it came to retrieving light data in real time from the internet to feel earthquakes. In her case, the disruption of habitual bodily actions is illustrated in her beautiful solo dance performance, *Waiting for Earthquakes* (Ribas 2013). Her movements and their intensity depend on the magnitude of each earthquake. However, if there is a system failure, there can be no data with which to capture tremors. Without these data, there is no bodily movement. Thus, these surprising events can have both physical and digital origins.

Some cyborgs mention the possibility of the cyborg organ being unexpectedly hacked, having bugs during updates, and even being physically damaged, especially when part of it is outside the body, such as Liviu Babitz's chest implant. Recently, Neil Harbisson sold the link to access his head in the form of a nonfungible token (NFT), which is a unique type of digital collectible purchased with cryptocurrency (Harbisson 2021). By accessing the link, it is possible to see and listen to the world through Harbisson's antenna. The tricky part in this case, however, is the possibility of being hacked and stolen for the financial potential of the NFT marketplace (Peters 2021).

Such a risky dynamic of losing the connection between the habitual body and actual body is also illustrated by Rich Lee and his experience with his *magnetic sense*. During one tech event, he mentioned a dangerous situation: the possibility of the body rejecting magnet implants. As an example, Lee explains, some body fluids can enter in contact with the metallic device and erode it, which would cause infection and possible amputation of the cyborgian body part (Biostudios 2016). In this mode of cyborgian embodiment, the premise is to live at risk. Taking risks is part of exercising morphological freedom (More 1998). If something goes wrong, then cyborgs must go back to the designing mode, thereby securing their cyborgian perceptual capacities.

Discussion and conclusion

In this chapter, by drawing on Merleau-Ponty's (1962) notion of embodiment, I have presented the ways four cyborgs have been experiencing their embodiment because of the addition or enhancement of their sensorial organs, such as magnets implants and an antenna that can help with, for example, listening to colors. As suggested by the modes of cyborgian embodiment illustrated in Figure 4.1, cyborgs experience distinct nuances of the levels of

embodiment that are influenced by emerging and speculative technologies. In their journeys to exercise morphological freedom to expand their existence (More 1998), they design new senses to create or enhance their bodily perceptions. Then, they experience an ongoing process of adaptation of the new inorganic body part with their organic body, which is followed by habituation not only to a sociocultural world but also to their biological setting. Because life may be unpredictable and surprising challenges and opportunities present themselves, cyborgs need to react to keep sensing what humans cannot naturally sense. Within this scenario, first, this chapter contributes to prompting discussions of transhumanism and cyborgs and, second, to expanding research on embodiment.

Over the past few years, consumer researchers have called for studies of transhumanism, but almost no consideration and theorization have emerged (Belk 2021; Belk et al. 2020; Schmitt 2019). Here, I ask the following: Why is it the case that, for some, transhumanism is the "world's most dangerous idea" (Fukuyama 2002)? Despite these eschatological views, or even the take on transhumanism as a faraway-sci-fi-like improbable future, humans and technology are becoming one (Hables-Gray et al. 2020). For better or worse, this is happening. As seen in this chapter, one manifestation of such developments is cyborgs and their quest for self-improvement by exercising their morphological freedom (More 1998). Rather than scaffolding the human body with technologies, such as smartphones (Clark 2004), their idea is to *become* technology, thereby living longer, smarter, and better. As Neil Harbisson (2016b) states, "I don't feel I'm using or wearing technology. I feel that I am technology." In this vein, consumer researchers should embrace a noninstrumental perspective toward human–technology symbiotic relationships, beyond what has been done thus far (e.g., Kaliyamurthy and Schau 2019; Kozinets 2019), hence investigating the transhumanist promise of superhumanization (More and Vita-More 2013) and the perils of dehumanization (Koch 2010).

Regarding theoretical implications for consumer research on embodiment, this chapter contributes to the works on embodied experiences (e.g., Cova 2020; Joy and Sherry 2003; Scott et al. 2017). The underlying flow of the modes of cyborgian embodiment depicted in the present study shows how cyborgs experience different nuances of Merleau-Ponty's (1962) levels of embodiment (i.e., physical attributes, habit (or skill) acquisition, and habit). Here, the cyborg body is neither an epistemology nor a mode of esthetics (e.g., Giesler 2004). Rather, their bodies are where they live and are their point of departure to sense the world, at least for now (Waters 2015). In addition, to amplify such an existential experience, they design, adapt, conform, and take risks to add or enhance their sensoriality and perceptions of the world. Merleau-Ponty (1962) argues that bodily perceptual capacities are responsible for our knowledge and, consequently, the creation of social realities. In this vein, by enhancing the five senses or creating new ones, the interconnection between the perceiving body and perceived world opens up possibilities for exploring unexplored nuances of our existence. These known unknowns and unknown unknowns must be investigated in future consumer research on cyborgs' embodiment. I hope this chapter, which is one of the first studies in consumer research to approach the development of cyborgs' sensorial organs, prompts discussions on the matter.

Transhumanism and cyborgs may have some roots in science fiction but are fast becoming science fact. The consumption of cyborgization technologies, such as those portrayed in the present research, is a growing phenomenon worldwide. Since 2018, for example, biocompatible microchips for human enhancement have been subject to scrutiny by the European Parliament and have been formally embroiled in issues regarding their legality, ethics, health implications, and security threats (Graveling, Winski, and Dixon 2018; Nagel

and Jensen 2019). During the COVID-19 pandemic, in the name of love for others, some transhumanist enthusiasts tried to hack their own bodies by means of genetic engineering, hoping to develop homemade vaccines (Lima, Pessôa, and Belk 2022). In 2022 or early 2023, Neuralink is expected to begin human trials of its brain–computer interface that intends to merge humans with AI (Kay 2021). Silicon Valley billionaires have been researching ways to live forever, be it biologically or virtually (Cave 2020; Farman 2020). Here, I wonder the following: When should we, as consumer researchers, start paying attention to these phenomena? Should it be only when the rich become immortal and the poor mortal (Hughes 2004)? Should we wait for new forms of eugenics and social stigma because of cyborgization to take place (Ranisch 2019)? Researching this subject later may be researching it too late. The. Time. Is. Now.

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