

The Alpha Human versus the Korean: Figuring the Human through Technoscientific Networks

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Abstract What does the human look like in South Korea? This article identifies two different figurations of the human in contemporary South Korea: the alpha human and the Korean. The alpha human is a human imagined, shaped, and circulated on the network of technosciences and media; it is embraced by technoscientific researchers, entrepreneurs, policy makers, and journalists. The alpha human's defining characteristic is the extended longevity, or even immortality, made possible by the developments in biomedicine, artificial intelligence, and robotics. On the other hand, the figure of the Korean is imagined to be going through a crisis of survival, as it is excluded or displaced from technoscientific as well as socioeconomic networks. It is represented by the indexes of fertility, inequality, and suicide, as well as reports of lived experiences of Koreans across generations. What does it mean to craft such a futuristic figure, or even a fantasy, of the immortally networked alpha human when the Korean is figured as experiencing dispossession and disparity? This article suggests that the alpha human is a decontextualized figure that can propose only technofuturistic escape but no vision for collective action.

Keywords alpha human · Korean · figuration · imagination · network · technofuturistic escape

This article asks a simple question: what does the human look like in South Korea? This short question is far from straightforward; it can point to many directions for

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intellectual or practical inquiry. I am not interested, for example, in morphological or aesthetic characteristics of the people living in South Korea. Nor does the article focus on the living and working conditions of South Koreans, although that is certainly relevant to the discussion here. Instead, I aim to examine the figure of the human that is being created, circulated, celebrated, or contested in South Korea. This figure of the human reflects contemporary concerns in Korean society, but more important, it is associated with visions of the future. So the question can be restated: how is the human of the future figured in South Korea in the 2010s?¹

One of the figures of the human in Korea exists at the level of the species, *Homo sapiens*, whose evolutionary trajectory seems to be expeditiously shaped by the recent developments in technosciences (Harari 2015a, 2015b). This human of the future is considered a technoscientific and biomedical entity. The nature of this future human is aptly captured by a name coined in a recent Korean television program: alpha human (JTBC 2016). Expressing the possibility of a hundred-year life expectancy, the alpha human is a new kind of human that lives a longer, healthier life, better connected to medical resources and technical convenience. The information-based technoscientific network plays an important role for the figuration of the alpha human. *Network* refers to the channels through which this figure is circulated, such as broadcasting, writing, and of course, the Internet. Other constitutive elements of the network include promissory technoscientific research and innovation as well as their promoters and popularizers. Also important for the analysis in this article is the virtual nature of the network. Here *virtual* does not necessarily mean unreal or nonphysical aspects of the network; rather, it points to the role of the network as an imagined space into which some elements of human beings can be abstracted so as to let human beings leave behind or transcend the body (Hayles 1999). The figuration of the alpha human is made possible by the presumed power of recent technosciences, such as artificial intelligence, robotics, neuroscience, and genomics, to remodel human beings as and through information. The alpha human can be considered virtually human in the sense that it is, to use a dictionary definition of *virtual*, “not physically existing as such but made by software to appear to do so” and has to stay on the network in order to exist (Sismondo 1997).

What does it mean to craft a figure of the futuristic alpha human in contemporary Korea? I use *alpha human* as a figuration that invokes the trope of technoscientific immortality widely circulated in Korea as elsewhere. As Claudia Castañeda and Lucy Suchman argue, following Donna Haraway, about figuration of *almost human* in artificial intelligence and robotics, figuration in and through technoscience condenses overlapping beliefs, values, and interests into visible and verbal forms (Castañeda and Suchman 2014; Suchman 2007; Haraway 1997). Like cyborgs and robots that these scholars describe as “simultaneously literal and figurative,” the alpha human and other figures of “beyond human” or superhuman bring together what is needed to constitute a human being as material-semiotic—scientific knowledge, technical systems, cultural tropes, and social and economic experiences. These figures are not there for us just to stare at. Rather, “we inhabit and are inhabited by such figures,” Haraway

¹ I use the term *the human* as an idea or a category and distinguish it from *human beings* that refers to embodied and mortal persons. The distinction is not an absolute one, and the two may constitute each other, but using these two different terms, where necessary, can help articulate my perspective in this article. I am grateful to the guest editors, who suggested this distinction. See Graham and Montoya (2018).

(1997: 11) writes, “that map universes of knowledge, practice and power.” The alpha human similarly pulls together diverse knowledge, practice, and power.

Of course, ideas and figures like the alpha human are not unique to Korea; technoscientific longevity or immortality is widely imagined and discussed (O’Connell 2017; Shermer 2018; Cave 2012). The alpha human in Korea, however, does not need to be understood simply as another instantiation of the common ideas and practices. Instead, we can ask how the alpha human seems to make sense somehow and becomes appealing in the context of contemporary Korea. Is the alpha human competing with, or favored over, any alternative figurations of the human in Korea? If so, how do these different figurations of the human suggest different hopes, concerns, or actions?

This article highlights the peculiarity of the seemingly universal figuration of *alpha human* by juxtaposing it against a nationally situated figuration of *the human*, which I will label simply as *the Korean*. Unlike the alpha human imagined at the species level, the Korean is often figured through a set of population-level indexes from the Korean government, World Bank, or Organisation for Economic Co-operation and Development (OECD). The Korean is a socioeconomic and biopolitical figure whose life and death are to be monitored and managed for the well-being of the population (Foucault 1991). More important, though, the figure of the Korean is embodied and narrated by living Koreans. *The Korean* as a figuration of the human is therefore at odds with, and may even challenge, the alpha human that is usually imported, celebrated, and anticipated by enthusiastic researchers, entrepreneurs, policy makers, and media pundits. It would not be correct to say that the alpha human is a purely symbolic figuration whereas the Korean is a wholly embodied one. As the sociologist of technology Zyenep Tufekci (2012) has emphasized, all human beings are symbolic and embodied at the same time. Different networks of knowledge, technology, narrative, and practice, however, distinguish these figurations in the terms of the symbolic-embodied dyad. The Korean tends to be more deeply embodied and socially conditioned through contemporary realities than the alpha human.

STS scholars have examined the ways in which new technologies, especially information and communications technologies (ICT), affect human relationships and intimacies and redefine what it means to live and die as a human being. Studies have shown that network technologies, such as the Internet, mobile phones, and online games, reshape the network of human beings (Turkle 1995, 2011; Castells 1997; Boellstorff 2008; Graham and Montoya 2015). As innovations in ICT and biomedicine converge on the human being’s body and mind, they also promise to produce a different kind of human being. These shifts in our understanding of human beings and of human beings’ relationships are as noticeable in East Asia as elsewhere in the world (Bray 2008; Ma 2016). Instead of narrating these phenomena as a repetition of a universal trend, we need to examine how the future-oriented technoscientific imaginations of the human may align or conflict with ethnic and socioeconomic perceptions of human beings’ life and death in each society (Rajão and Duque 2014). Promises and expectations of the human of the future are circulated transnationally, performing similar roles in shaping discourses and policies, but at the same time they face varying frictions and challenges on the ground (Brown and Michael 2003; Borup et al. 2006; Fortun 2008).

How can one trace the constitution of the figure of the alpha human on and through the technoscientific network and its tension with the Korean? Here the role of the media

cannot be overestimated. The media contribute to, and also profit from, producing the figures of the human in relation to the discourses of human beings' livability and mortality in Korea (Appadurai 1996). Recently, Korean media have been quick to respond to emerging figurations, such as the new kind of elderly in an aging society and the posthuman in the so-called fourth industrial revolution (E. Kim 2017; S. Kim 2017). Through sensationalistic technohyping or serious investigative coverage, the Korean media can disseminate both figures of the human, but the opportunity for circulation is given more extensively to the alpha human than to the Korean. In following the material-semiotic characteristics of the alpha human and the Korean on different kinds of networks, this article analyzes several types of sources, such as newspapers, magazines, novels, original and translated books, policy reports, television shows and documentaries, and statistics and indexes, with which these figures are crafted and circulated. Juxtaposing the alpha human and the Korean that emerge from these sources as potentially conflicting figurations shows that the universal and the local, the material and the figurative, the individual and the collective are always implicated simultaneously in imagining or fantasizing the human.

In what follows, I first describe how the future has recently emerged in Korea as a fashionable discourse in government policies, academic and entrepreneurial circles, and mainstream media. Then I discuss the figure of the alpha human as a site where all futuristic desires animated by technoscientific advancements converge. This futuristic figure of alpha human, whose most anticipated condition is the immortality on the technoscientific network, is contrasted with the figure of the Korean, especially as the latter is invoked in recent critiques of mortal socioeconomic conditions in Korea. In conjuring the immortal of the future, the alpha human represents ultimate promissory sciences, bordering on a religious belief in salvation. I conclude by considering the implications of technofuturistic escape offered for the alpha human and by suggesting the need for a collective, political imagination of the future and human beings rather than an individualized, technoscientific fantasy.

1 Now Trending—Future

In the 2010s, especially under the Geun-Hye Park 朴槿惠 government (February 2013–March 2017), it has been fashionable to talk about future. The future has become a topic for popular discussion in the media, an object of study in academia, and a policy agenda for the government. In 2013, the Korean government even created a ministry whose name includes the word *future*: the Ministry of Science, ICT, and Future Planning. As shown in the name of the new ministry, the future in Korea is considered predominantly technoscientific. More than anything else, the future means new technologies, especially information- and computing-based systems and networks, as well as breakthroughs in genetic, brain, and material sciences. These technologies were expected to constitute the core of what Park's government called the “creative economy” of future Korea.

The year 2015 was a good year to discuss the future, since what the engineer and futurist Ray Kurzweil (2005) called the “Singularity” was supposed to happen in just thirty years, that is, in 2045. At the Singularity, according to Kurzweil, “the pace of technological change will be so rapid, its impact so deep, that human life will be

irreversibly transformed” (7). The year 2045 will also mark a hundred-year anniversary of Korea’s independence from Japanese colonial rule. Policy institutes and researchers produced various reports on the future specifically set in 2045. *2045: Future Society@Internet* is the title of a future-forecasting report published by the Korea Internet and Security Agency (2045 inteonet@ingan.sahoeyeonguhoe 2016). This 370-page report lists technological advancements in mobility, health care, family life, education, virtual reality, and energy as key constituents of future life in 2045. What hold these in common, according to the report, are the “Internet-based ICT Technologies [*sic*],” such as artificial intelligence (AI), Internet of Things, and robotics, whose power surpasses that of the Internet in the past. The Seoul Institute, a think tank run by the city of Seoul, published the 2045 Seoul Future Report series, whose second volume was *Future Technology and Future Seoul* (2016). Once again, the key factors mentioned in the report are information-based technologies such as robotics and self-driving cars. Robotics researchers in Korea were particularly excited in 2015, because in June the robot Hubo developed by a team at the Korea Advanced Institute of Science and Technology won the \$2 million Robotics Challenge sponsored by DARPA (Defense Advanced Research Project Agency). So they joined the trend of publishing a future report for 2045 with an article “Future Robots in 2045 That Will Change Our Life” (Kang et al. 2015).

The enthusiasm for the technological future continued in 2016. Both amplifying and affected by the government’s obsession with the future, Korean media have frequently featured life in the future full of new technologies. One typical example is the front-page story of a major economic newspaper on New Year’s Day in 2016. This special feature portrayed the life in 2066, fifty years ahead. The whole idea of life in 2066 is based on the development of science, technology, and medicine, which will have changed all aspects of human life: artificial intelligence, humanoid robotics, synthetic biology, gene editing, and brain science, among others. Thanks to these technologies that will surround us, the report implies, the life in 2066 will be comfortable and convenient (Kim and Won 2016). Similar predictive stories of life one or two generations from now are widely circulated in all kinds of news media. Media’s portrayal of utopian future life is not new, but the extent to which the technoscientific future has become a part of public discourse makes it a phenomenon that deserves analytical examination.

The technoscientific components of the future coalesce into a new figure of the human and the possibility of extending its life. The ultimate end point of this technoscientific future discourse is the immortality of the human or the transformability of the human into something else. In Korea, these ideas have been actively imported in recent years. A series of translated books reveals growing interest in the topic. The cryonics pioneer Robert Ettinger’s 1964 book *The Prospect of Immortality* was translated into Korean in 2011 as one entry in a Korean publisher’s “modern classic” series. The translation introduced to Korean readers the decades-old idea of preserving the human body at low temperature in the hope of waking up again someday in the future. The same publisher also released translations of K. Eric Drexler’s *Engines of Creation: The Coming Era of Nanotechnology* (1986) and Hans Moravec’s *Mind Children: The Future of Robot and Human Intelligence* (1988), all in 2011, both of which discuss the upcoming shift in the meaning of human life and death. Much more popular than these “modern classics” was the 2007 Korean translation of Ray Kurzweil’s *The Singularity*

Is Near: When Humans Transcend Biology (2005), which has become a frequent and influential reference for all kinds of posthuman or transhuman discussions in Korea. The visions of technological future proposed in these books share the idea that humans will be able to overcome or transcend the fundamentally human condition of the biological body and mortality through genetic engineering, nanotechnologies, artificial intelligence, or robotics.

Koreans' interest in the long-term prospect of humankind, especially its immortality or species-level transformation, was expressed once again with Yuval Harari's *Sapiens: A Brief History of Humankind*, originally published in 2011 in Hebrew and translated into Korean in 2015. *Sapiens* was such a popular bestseller that Harari was invited for public lectures and interviews in April 2016 (*Yonhap News* 2016). As is often the case for its English edition, the reviews of the book's Korean translation tend to focus on its final chapters, in which Harari makes a diagnosis that *Homo sapiens* "stands on the verge of becoming a god, poised to acquire not only eternal youth, but also the divine abilities of creation and destruction" (2015a: 415). In this future scenario, the human body, which is the reason for human mortality, would no longer matter, because it is biologically enhanced or transformed by new technologies. Harari's *Sapiens* helped spread in Korea the idea that the final destiny of humankind, including the possibility of not dying, will be determined by artificial intelligence, robotics, and genetics research.

2 The Alpha Human Is Coming

Following the trend in these translated books, the theme of technological transformation of the human has fascinated major television broadcasters in Korea. The human being of the future with various forms and names started to appear in special reports and documentaries. One example is a TV show aired 1 January 2016 as a special episode for New Year's Day. The title of the program was "The Age of One Hundred Year Life—The 'Alpha Human' Is Coming." The program predicted that life expectancy in 2045 will be one hundred years, and the alpha human of the future is expected to be healthier and smarter than the ordinary human of today. Whereas the rapidly aging population in Korea is usually treated as a serious social problem, the technologically extended life span is considered an achievement to embrace with optimism. The idea of alpha human is predicated on many "disruptive technologies" that will open the door to living one hundred years (Christensen 1997). The program introduced an almost identical set of technologies that one can find in typical futuristic narratives, such as humanoid robots, self-driving cars, virtual reality, neuroscience, and organ transplantation. These technologies are all supposed to change the way we experience the human body as well as the world. But what matters most for the alpha human is that these technologies converge on the issue of extending human life (JTBC 2016).

Although it did not catch on after the airing, *alpha human* is a good name with which to think about the human of the future in Korea. Like the popularly imagined alpha male among animals, alpha human sounds like a dominant, high-ranking member among all peer humans. The hundred-year life expectancy suggests the character's health and strength maintained by pharmaceuticals and technologies. The alpha human is thus a privileged human, as the label *alpha*, by definition, cannot be applied to everyone. The

alpha human differs from most other humans in terms of biological qualities and technological resources. As can be seen in the title of the program, the alpha human is “coming” but has not arrived. The alpha human stays in the future and is strongest in the future tense, for the idea can create a high expectation for a longer and healthier life in the future (Brown and Michael 2003; Borup et al. 2006; Fortun 2008). The alpha human represents the hope to become the best version of the human so far.

On 1 April 2016, three months after the alpha human documentary, another television show picked up the word *alpha* and went even further. The Korean Broadcasting System, the national public broadcaster with one of the largest networks in Korea, aired a “lecturementary” (lecture + documentary) program with the title “The Age of Alpha Age Is Coming” (2016). Here, *alpha* meant an additional thirty years in human life expectancy, and the program predicted that the “modal age at death” (the most frequent age at death) will eventually be 120 years, exceeding the alpha human’s life expectancy by twenty years. The program’s host-lecturer was Jun-Ho Lee, a biology professor at Seoul National University famous for his research on nematodes (*Caenorhabditis elegans*) and telomeres (the “aging clock”). With his scientific authority on the television stage, Lee promised to show the audience “a surprising and fearful future” in which we would live—the Alpha Age. As a way to support his assertions of the Alpha Age, the documentary producers paid obligatory attention to Silicon Valley, because that was where efforts were being made to “deter aging and extend life.” Lee quotes Sergey Brin (cofounder of Google) and Peter Thiel (cofounder of PayPal), who are investing in aging and life-extension research; Thiel reportedly wants to live 120 years, making himself a perfect witness to the Alpha Age. The host then traveled to Japan to meet some “super-elderly” and talk about “superelite genes” they might possess. Despite all the promise and hope, the Alpha Age remains distant and foreign news about a privileged small group with extra money and lucky genes.

Perhaps coincidentally, *alpha* also came to be associated in Korea with the future archenemy of the human. In March 2016, the nation was shocked when the artificial intelligence program AlphaGo developed by Google’s DeepMind, defeated Sedol Lee, the world-renowned Korean Go player, in a five-game match held in Seoul. The event was certainly a big moment in the history of artificial intelligence research, but the reaction from the Korean media and public went far beyond those in other countries. In a typical human versus machine narrative, the Korean media portrayed the Sedol Lee versus AlphaGo match as the human intelligence’s surrender to the omniscient, if not yet omnipotent, artificial intelligence. One could point out that machine intelligence is a product of human intelligence, but this obvious fact was eclipsed by the shock of this machine spawn apparently achieving autonomy and superiority. Commentators made a reference to the *Terminator* film, in which Lee as John Conner (the leader in humanity’s fight against Skynet) was playing against AlphaGo as Skynet (the computer system that developed superintelligence and attempted to exterminate humanity). The Korean audience seemed to enjoy the idea that, arguably for the first time in the nation’s history, a Korean was representing the entire humanity and fighting a heroic, and eventually doomed, battle against the archenemy with superintelligence. Lee was fully aware of this sentiment when he made the widely quoted remark at the press conference of the third match, in which the winner was decided: “Today’s defeat is . . . not the humanity’s, but just Sedol Lee’s” (Chung 2016; Jeon 2016).

Between alpha human and AlphaGo lies a conflicting idea of the human that was fashionably circulated but hardly analyzed by Korean media in 2016. Bolstered by a set of new technologies, the human is turning into an alpha human at the same time that human beings' capability and even existence are challenged by the same set of technologies, which are also becoming "alpha." In an interview published in *Chosun Ilbo*, a major Korean newspaper, during the AlphaGo event, the historian Harari said that AlphaGo's victory heralded the end of humanity before the year 2100. Displaced by superintelligent machines, he explained, human beings would become useless in many occupations. A survival strategy for human beings suggested by Harari is to "combine with machines" and "become a God-like entity." With "their bodies constantly regenerated and their minds logged into virtual and augmented reality," human beings in the late twenty-first century will become "virtually immortal" (Park 2016). Thus, Koreans received a mixed message about the future human as simultaneously threatened and strengthened, useless and almighty, fearful and hopeful. The confusion was manifested in the selection by the magazine *Weekly Chosun* of AlphaGo as the Person of the Year for 2016. Other candidates for the title included President Geun-Hye Park 朴槿惠, who was to be impeached not long after. AlphaGo was chosen over the disgraced president because the magazine staff preferred "positive and future-oriented persons" and considered AlphaGo as "a person who gave hope to Korean society" (Bae 2016).²

Since the AlphaGo shock, the Korean media have been searching for the figure of the future human and produced some variations of alpha human. In December 2016, MBC, one of the major television broadcasters, ran a three-part special documentary titled *Future Human—AI*. The exact meaning of the title is not clear, but certainly the motivation for the program was the fast development of AI and robotics research. The titles for each segment were "The Birth of the Mechanical Human," "The Future of Labor," and "The Future of Sapiens," which suggest that the program repeated the narrative of the human at once competing against, combining with, and transformed by smart machines (MBC 2016). In January 2017, the Korean Broadcasting System aired a two-part special documentary titled *Final Evolution*. With segments titled "The Birth of the Mechanical Human" (identical to MBC's segment title) and "Cold Machine, Warm Love," the documentary repeated the familiar story of humanity's "final evolution" into mechanically constituted human beings and their changing relationship with machines (Korean Broadcasting System 2017). In these and other media narratives of the future human, words like *birth*, *evolution*, and *future* invoked a sense of inevitability of the species-level transformation. These variants of alpha human are described as still human, part human, new human, transhuman, or posthuman, depending on how one views the interwoven conditions of human beings and technologies.

Interpretations of this future human rely much on well-known technologists, academics, and pundits abroad. Ray Kurzweil, Elon Musk, Hiroshi Ishiguro, Nick Bostrom, Stephen Hawking, Yuval Harari, and others have appeared in Korean media to tell Koreans what the future will be like and how one should prepare for it. This is considered a reasonable practice because the coming of the alpha human has universal implications. The alpha human documentary depicted the future human presumably as

² The Korean word used here for "person" is *inmul* (인물, 人物). The word is gender-neutral and is often used to refer to a person in terms of his or her appearance, character, or capability. In ordinary usage, the word is almost never used for nonhuman entities. It does not have a legal connotation.

an ethnic Korean, but the ethnicity did not really matter since the future is coming to the entire humanity. The year 2045 as the point of Singularity, “when humans transcend biology” as expressed in the subtitle of Kurzweil’s 2005 book, is also considered a mark on a universal calendar across all societies. These perceptions make sense because the IT-based network, on which alpha human is conceptualized, maps closely onto the global network of dominant future discourses through which spectacular technology forecasts (such as Gartner Hype Cycle), talks (e.g., TED Talks), and conventions (e.g., the World Economic Forum at Davos) circulate. The alpha human derives its significance, authority, and inevitability within these overlapping networks of technologies and discourses.

3 The Korean in a Hell

The alpha human’s alien character and its possible immortality become peculiar when put alongside another future prospect in Korea: the Korean may go extinct. A 2014 report by the National Assembly Research Service ventured to declare the year 2750 as the final day for ethnic Koreans. The National Assembly research team stated that if the current fertility rate of 1.19 continues without any changes in South-North relationship or immigration policy, the Korean population will decrease to 20 million by the end of this century (from the current number of 50 million). By 2256, there will be only one million Koreans, and by 2503, only ten thousand Koreans will be living, until the number goes to zero in 2750 (Joo 2014). In the words of a *Wall Street Journal* blog post on this report, “South Korea’s fertility rate is so low that the country’s population could go the way of the dinosaurs by 2750” (Cheng 2014).

This doomsday scenario is written with the assumption that the current trend of extremely low fertility rate continues throughout all the years. It is not a realistic assumption, but the report makes it clear that the current fertility rate is an imminent threat to the survival of the Korean. In fact, the National Assembly report was not the only one that warned about the extinction of Koreans. As early as 2006, David Coleman, an Oxford professor of demography, suggested that Koreans might cease to exist as an ethnic group by the year 2300 (Noh and Lee 2010). In 2010, *Samsung Economic Research Institute*, an influential think tank in South Korea, released an “emergency proposal to overcome low fertility.” This report also predicted that the Korean population will decrease by half at the end of this century and that by 2500 there will be only 330,000 Koreans, indicating the possibility of the “extinction of a nation” (2). Economist Yeong-Soo Jeon’s recently published book on Korean demography and economy, *Korea Vanishes*, claims that “the biggest population change in the history of Korea” will begin in 2020 (Jeon 2018: 175). Jeon speaks of “demographic onus” to explain how demographic changes are holding back Korea’s economic growth. Korea is on “baby strike,” he points out, and is about to witness “the evaporation of youth” (133–40).

Here is the stark discrepancy between the two prospects of immortality and extinction, one for the alpha human and the other for the Korean. The alpha human will stay longer on the planet by becoming healthier and smarter and by successfully turning itself into a new kind of entity. By contrast, because fewer and fewer babies are born in Korea, the Korean will disappear from the planet. While the former prospect of

immortal alpha human is the topic for popular media, technoscientific elites, and entrepreneurs, the extinction of the Korean is the subject of social debate and the concern of policy makers in economy, welfare, and other population-related fields. Would the immortal alpha human have any meaningful existence if the nation of the Korean is gone?

Between the universal hope and the local anxiety lies the record of extremely low fertility rate in South Korea. Over the past decades, the rate has decreased dramatically: 6.155 in 1960, 4.53 in 1970, 2.82 in 1980, 1.57 in 1990, 1.467 in 2000, 1.076 in 2005, and 1.205 in 2014. Since 2002, Korea's fertility rate has been lower than those of Japan and China (World Bank n.d.). The discourse of "population crisis" in Korea has prompted the government to come up with policies to intervene in Koreans' personal and social lives for the sake of promoting fertility (Paik 2009). The blame for the low fertility rate goes, of course, to the young generation who are choosing not to have babies. The big questions for debate are why young Koreans are not having children anymore and what policies would encourage them to have children and contribute to the survival of the Korean nation. Many opinions and policies have been directed to this, including provision of baby products for newborns, priority seats for pregnant women in public transport, and even government-sponsored matchmaking services (Lee 2015). But they have mostly failed to raise the birth rate.

It may be futile, then, for Koreans to participate in humanity's quest to overcome the fundamental condition of mortality through technoscientific and biomedical innovations; regardless of the posthuman state that may come about for the alpha human, the nation of the Korean will cease to exist in a few hundred years. Will young Koreans care about the fate of their nation? Will they listen to the call for changes in their lifestyles and reproductive behaviors for the sake of the nation?

In 2011, Korean media began to use the phrase *give-up generation*, referring to the Korean youth who give up at least three things in life: romance, marriage, and childbirth (Ryu and Park 2011). This list has expanded rapidly and now includes jobs, housing, health, and more. Suffering from job insecurity, student loans, housing costs, and long work hours, Korean youth of the 2010s cannot afford, or are too busy, to start a new family and contribute to the nation's survival. Some Korean youth are reportedly deciding not to have children as a form of "revenge" on the "ruling class," who they believe are responsible for the flawed social structure and are always seeking to exploit the next generation of labor. Others do not go so far as revenge but share the sentiment that having a family life is a luxury reserved for a selected portion of the population rather than a basic right granted to all (Koo 2015; Song and Lee 2017). Either way, the lived experience of Korean youth aligns more closely with the disappearing figure of the Korean than with the immortal figure of the alpha human.

"Giving up" signified the ultimate despair of the Korean's future. O-Young Lee, a renowned public intellectual in his eighties, interpreted the youth's behavior of giving up romance, marriage, and childbirth as equivalent to "giving up life itself, that is, suicide" (Lee and Song 2015). For members of the give-up generation, however, that could have been exactly the point: life in Korea was making them suicidal, literally and metaphorically. The socioeconomic condition to which the phrase *give-up generation* refers is sadly captured by the suicide rate of South Korea. Among the OECD countries, South Korea ranked number one in suicide rate in 2011 (33.3 per 100,000 persons), 2012 (29.1), and 2013 (28.7). In fact, South Korea has stayed at or near the top of

the list since 2003 (OECD 2017). In a *New York Times* op-ed in April 2014, Kim Young-Ha, a popular Korean novelist, wrote that “suicide is everywhere” in Korea and that it is viewed “as a viable escape from the stresses of modern life.”

The extreme numbers for fertility and suicide are only the most visible and numerical revelation of the mortal conditions in contemporary Korea. Recently young Korean Internet users have come up with a powerful rhetorical expression of such conditions: the phrase *Hell Joseon* began to spread first online and then offline as well (Joseon is the name of an old dynasty that existed from 1392 to 1897 in the Korean peninsula and is sometimes used to refer to Korea as a nation). What frames the idea of Hell Joseon is a kind of developmental narrative that takes a Western-style modern civilization as a goal or a norm. *Hell Joseon* implies that, contrary to the conventional narrative of Korea’s successful industrialization and democratization, South Korea still falls short of a normal, civilized society. While *give-up generation* is attributed to Korean youth by the media, *Hell Joseon* can serve as a counterdiscourse by the Korean youth, who refuse to be called on by the state or the ruling class to contribute to the nation’s developmental goal. Instead of accepting the call, youth fault the elites and the older generations for making Korea unlivable for them (W. Lee 2016; Koo 2015).

Livability and survivability have become keywords for diagnosing the deep problems of Korean society. On 1 January 2016, the same day that some newspapers and TV broadcasters published hopeful stories on future technology and life, such as the alpha human, one liberal newspaper published an editorial titled “On Inequality.” The newspaper claimed, “Now Korea has become a land that is unsuitable for *Homo sapiens* to inhabit.” There was no surprise, the paper indicated, about the fact that Koreans do not give birth to babies and raise them on this land (Kyunghyang Shinmun 2016). The use of the term *Homo sapiens* reveals the seriousness with which the editorial writer wanted to convey the concern. Korea as a land has become infertile in many senses of the word, and the use of the word *land* can be read as a reminder that humans live, after all, on the land, not on the network. The same newspaper also published, on the same New Year’s Day, a special op-ed titled “Declaration on the Doomed Nation” by Aram Sohn, a novelist in his thirties. “No one can survive,” he wrote, “in a barren land where an entire generation is giving up life.” Here he was speaking for the youth who “would rather desire extinction than stay as a damned loser.” The state of the nation is so dismal that, according to the novelist, it will not even collapse as other nations do. So he wrote a hypothetical line for future historians: “The nation just evaporated!” (Sohn 2016).

Hell Joseon is tough not only for the youth but also for the elderly. One notable characteristic of South Korea’s suicide rate is the high proportion of elderly suicides. Korea’s suicide rate among the elderly is incomparably higher than other OECD countries (Economist 2013). This is connected to the serious state of poverty among the elderly in Korea. As of 2012, South Korea has the highest old-age income poverty rate (49.6 percent) among OECD countries, which means that half of the Koreans over sixty-five years old live with an income below 50 percent of median household disposable income. The distant second and third highest rates belong to Australia (33.5 percent) and Mexico (27.0 percent; OECD average is 12.4 percent; OECD 2015). Another serious aspect of the death of elderly people in Korea is so-called lonely death. It refers to the cases in which an old man or woman who has lived alone without connection to family or friends dies alone and then is found days or months later by a neighbor or a social worker. Statistics of lonely death are not well established due to the

nature of the incidents, but it has become an indication of the deepening poverty and inequality among the old population (Lee and Choi 2016).

In recent years, Koreans—especially those who cannot associate themselves with the idea of the alpha human—have witnessed the fragility or vulnerability of life not as a natural existential condition of *Homo sapiens* but as a consequence of the political, economic, and social system. The most shocking case was the sinking of the *Sewol* ferry in 2014 that took the lives of 304 passengers and crew, including 250 high school students on a school trip (Lee and Choe 2014). The tragically ill-executed rescue operation was widely believed to be a failure of the state in its basic duty to save citizens' lives, as the ship's sinking was broadcast live to the entire nation. Many Koreans, especially young students, felt that the victims had been left to die by their own incapable government. A similar sentiment appeared during the MERS (Middle East respiratory syndrome) outbreak in 2015, as the government's mistakes and inactions were held responsible for the higher number of deaths than initially expected from the epidemic. Koreans also witnessed how socioeconomic insecurity without proper governmental and social intervention could crush people's will to live. Since 2009, when more than two thousand workers at SsangYong Motor Company were laid off, a total of thirty workers or their family members died, and sixteen of the thirty deaths were suicides. This raised serious epidemiological concerns, and "layoff is murder" became a slogan of labor activism in Korea (Kim 2015; Lee 2018).

Lowest fertility rate, highest suicide rate, increasing lonely deaths, and repeated disasters represent the ways in which Koreans perceive and experience their own mortality as part of dire socioeconomic conditions. When Koreans call their own nation a "hell," they feel that not every life is respected in Korea and that death is imminent but not equally so for everyone. In Hell Joseon, they go through what Lauren Berlant (2007: 754) has described as "slow death": "The physical wearing out of a population and the deterioration of people in that population that is very nearly a defining condition of their experience and historical existence." While the alpha human is said to offer a possibility of deferring death for all, individual Koreans in their socially differentiated groups face death that is slow but never deferred. "Worn out by the activity of reproducing life" (759), the Korean suffers from the real prospects of dying alone, en masse, or by one's own choice.

Young Koreans' practice of giving up and their responses to recent events reveal some of the key differences between the Korean and the alpha human. The Korean is one whose rights can be infringed, renounced, and reclaimed within specific political, social, and economic situations, whereas the alpha human has only attributes that transcend temporal and spatial boundaries. The alpha human knows no rights to enjoy or to give up (Montoya 2015). The alpha human's seemingly universal attribute of immortality is attached to it by technosciences and media, while the Korean's rights to life and safety are compromised by institutional policies and practices. If the Korean is doomed in a hell, can one escape from it?

4 Frozen to Escape

As the talk of Hell Joseon spread quickly on the Internet and then on the mainstream media, there also emerged the talk of escaping from the hell, or "escape Joseon." The

idea is that, if one can, one will try to escape from the harsh reality of Korea. It often means actual emigration to other countries where they can find better living conditions, such as a better welfare system, more opportunities, and a less competitive atmosphere (Kim 2011). Some Korean youth try out working holiday programs in countries like Australia or embark on “long-term travel” in India or Thailand. Their stories are reported in the media as a sign of how hard it is to live in South Korea (Hwang 2016; M. Lee 2016). The title of a bestselling novel published in 2015 is *Because I Hate Korea* (2015). Written by journalist-turned-novelist Chang Kang-Myung, it depicts a young Korean woman’s search for a more livable place than Hell Joseon offers her. For most Koreans, however, “escape Joseon” is no more than an expression of despair. For the youth without resources or connections, actual escape from the nation is impossible. They are trapped in mortal conditions, if not readily doomed to extinction.

It is against these socioeconomically differential conditions of life and death that the technologically inspired futuristic figurations of the human need to be examined. Technoscientific elites and the media craft a figure of the smart, happy, healthy, and immortal alpha human out of the population whose actual, individual members are facing an increasingly inequitable livability and mortality. This intellectual, technical, and media exercise can be called “technofuturistic escape.” It is a diversion of attention, will, and resources from unequal conditions and dysfunctional systems toward unproved solutions and unsubstantiated promises. In contrast to socioeconomic experiences of life and death on the ground, the technofuturistic escape is made possible only on the network of promissory or speculative innovations, entrepreneurial researchers and intellectuals, and media hypes. The network is physical in the form of computing and communication infrastructure but is also virtual in the sense that it creates a space for disembodied and aspirational human existence. On this network, death-defying technosciences offer the alpha human a pain-free exit from socioeconomic realities.

Technofuturistic escape from mortality is a popular theme not just in science fiction but in many ambitious scientific practices (Cave 2012). The promotion of the cryonics movement by Robert Ettinger and his many followers is one prominent example of a futuristic escape through present and future technologies. Ettinger’s book *The Prospect of Immortality* was published in 1964, and his dream continues at the Cryonics Institute, which Ettinger founded and led until his “death” in 2011. The institute’s website (www.cryonics.org) says to the visitors, “Welcome to Your Future.” Another phrase on the website sums up its vision of life and death: “Technology Extending Life.” Historian Jill Lepore makes an analogy between Ettinger’s cryonic vision and the film *Dr. Strangelove or: How I Learned to Stop Worrying and Love the Bomb* by Stanley Kubrick, also released in 1964. To Lepore, each seems like a futile attempt to preserve human life within technically guarded spaces while unsuccessfully avoiding “MAD”: mutually assured destruction or death (Lepore 2010). In the face of imminent physical destruction of the body or the planet, death is claimed to be avoidable through technosciences.

It is a notable coincidence that Robert Ettinger “died” and his body was put into a preservation tank in 2011 (Furber 2011), the same year when his 1964 book was translated into Korean. In his appendix for the Korean edition, Ettinger (2011: 296) expected “enterprising and innovative Koreans” to “not simply follow our footsteps

but take a new step forward energetically.” He may have been anticipating the alpha human who would be “enterprising and innovative” enough to try out anything for longer life. By another notable coincidence, however, in 2011 Korea’s suicide rate was one of its highest (33.3 per 100,000 persons) and the give-up generation became an agenda item for Korean media. The vision of technical immortality and the mortal reality of life in Korea coexist uneasily, playing off each other. The immortal figure of alpha human could appear believable and attainable because of Korea’s apparent prosperity and technoscientific capacity, which seemed to Ettinger to make Koreans “enterprising and innovative.” On the other hand, the mortal reality of the Korean could render the alpha human seductive and senseless at the same time.

The title of the 2011 Korean translation of Ettinger’s book is *The Frozen Human*. While the original title, *The Prospect of Immortality*, displays the deeply human desire as an abstract idea, the Korean title conjures up a concrete figuration through which the desire might be realized. The “frozen human” deals with a much longer time span than does the alpha human but can be considered a variant of the alpha human in the sense that the former offers a possibility, especially in the form of corporate service, of materializing the latter and paying for it. Although Ettinger’s book did not succeed in the publishing market of 2011, the material-semiotic frozen human could serve as a powerful figuration of the technically immortal human, especially in the wake of the AlphaGo shock in 2016.

The frozen human suddenly started to circulate widely in Korea in 2017. High-profile scientists and other intellectuals collaborated in popularizing the concept of the frozen human through major media outlets. In June 2017, a science documentary series *Beyond* by Educational Broadcasting System aired a one-hour episode titled “The Dream of Immortality, the Frozen Human.” Hosted by Jung-Kwon Chin, one of the most popular public intellectuals in Korea, the documentary included explanations of scientific principles of cryonics, visits to cryonics research facilities, and interviews with researchers and patients. The documentary producers crossed the Pacific to visit the Alcor Life Extension Foundation in Arizona and to find interviewees in San Diego, San Francisco, and Los Angeles who had applied to be frozen. No Koreans were interviewed as believers in cryonic preservation or as potential applicants. The host of the documentary, who is known for his critical perspectives on almost any topic, revealed a sense of wonder and curiosity regarding the scientific possibility of “solving the humanity’s age-old challenge of recreating or extending life.” For him, the frozen human was a cause for unusual optimism in technofuturistic escape from mortality.

During the next month, July 2017, the frozen human was featured as a discussion topic in *The Dictionary of Useless Knowledge*, one of the most successful TV shows of the year, in which a small group of intellectuals travel together to a destination each week and have a conversation on a range of topics, including history, literature, food, and science (tvN 2017). In the last episode of its first season, the topic of the frozen human arose during their conversation about the mummies in the region’s natural history museum. Jaeseung Jeong, a neuroscientist professor and one of the most popular science writers in Korea, offered his scientific explanation of preserving the frozen human. When other members in the show with humanity and social science backgrounds pointed out the “absurd attitude about life” manifested in the frozen human project, the neuroscientist responded that those applicants for cryonic preservation could be in the process of rational “conversion” from a religious belief in the afterlife

and salvation to a scientific idea of “death as a surmountable disease.” A writer and political commentator who had been skeptical about the whole idea of the frozen human was finally persuaded by the neuroscientist and retracted his critique of the “absurd attitude about life.” Through this television conversation among Korea’s best-known public intellectuals, the frozen human seemed to pose “a very important philosophical question about the relationship between technoscientific change or development and our ethical statements.” The material-semiotic figure of the frozen human made the technofuturistic escape appear practical and rational rather than fanciful and absurd.

Even while the idea of the frozen human was popularized, or mainstreamed, by the multiple exposures on nationwide television networks, the figure remained a distant and foreign possibility to be explored only outside Korea. That situation changed in early 2018, as the Russian cryonics company KrioRus announced its plan to launch a cryonic preservation service in Korea. As *Science Donga*, a prominent monthly science magazine, reported in February 2018, “the frozen human service came to Korea.” Human High Tech, the Korean partner of KrioRus, wants to apply the technologies of the frozen human to “frozen organs for transplantation,” which will be “one of the long journeys to realize the frozen human” (Kwon 2018). For the time being, Koreans who want to turn themselves into frozen humans will have to travel to Russia and “die” there, because Korea currently provides no legal and technical support for the frozen human (Jeong 2018). A Korean literally has to escape from Korea in order to become a frozen human.

The alpha human and the frozen human belong to two different immortality narratives. Philosopher Stephen Cave (2012) identifies four types of immortality narratives that he argues have driven human civilizations everywhere: staying alive, resurrection, soul, and legacy. It is easy to classify the alpha human and the frozen human into the staying alive narrative and the resurrection narrative, respectively. They may represent slightly different attitudes toward death, one about postponing death and the other about bringing the dead back to life. In contemporary Korea, however, the difference in their narrative themes is overshadowed by the common technoscientific features that bring each figure into being; both figures are animated by the latest technosciences. The frozen body is one of the possible forms that the alpha human may take.

5 Imagination or Fantasy

Desperate resistance against death and craving for the alpha human suggest that technofuturistic escape mainly involves individuals and their choices. The alpha human and its variations are often presented as a universal entity whose (im)mortality is not tied to race, gender, nationality, or, ultimately, time and space. In theory, anyone can be an alpha human. But as much as the alpha human is decontextualized, the figure is very much individualized. The status of alpha human is reserved for those individuals whose socioeconomic power lets them access the technoscientific network by their own choice and diligence. Multiple alpha humans do not necessarily constitute a collective that shares a common concern or destiny. As they are supposed to defy mortality, alpha humans are not counted, or accounted for, in the population of Koreans, which is composed of mortal and vulnerable beings. The problems of the alpha

human require individuals' smart solutions, while those of the Korean demand collective actions. When technofuturistic escapists in Korea dream of an individualized utopia, the collective prospect of the Korean as a socioeconomic concern does not receive as much attention. The future for the alpha human has much more to do with artificial intelligence and neuroscience than with poverty and inequality.

This contrast between the two figurations of the individualized alpha human and the collective Korean leads us to ask whether we should label them differently. Discussing the role of imagination in the age of global media and migration, [Arjun Appadurai \(1996\)](#) distinguishes imagination from fantasy. For him, fantasy has "the inescapable connotation of thought divorced from projects and actions"; it tends to be "private" and "individualistic" (7). By contrast, "the imagination, especially when collective, can become the fuel for action" (7). It is through collective imagination, Appadurai states, that we have produced "ideas of neighborhood and nationhood, of moral economies and unjust rule, of higher wages and foreign labor prospects" (7). And, more pertinent to the alpha human and the Korean, he writes that "imagination is today a staging ground for action, and not only for escape" (7). The technofuturistic escape of the alpha human, then, may not be regarded as one of the two competing imaginations, but rather as a fantasy that is "divorced from projects and actions." The alpha human remains a fantasy, not because it is scientifically unproven or wrong, but because it merely proposes escape but no action.

In the end, the alpha human and the Korean pose a question about what it means to be a mortal human being. How should we figure out what "we inhabit and are inhabited by" ([Haraway 1997: 11](#))? When mortality is discussed in technoscientific fantasies rather than as lived experiences, it is no longer a fundamentally embodied condition for human existence but instead a temporary platform, created and supported only on the network, where entrepreneurial ideas about body, humanity, and future are tried out. New ideas of life to be extended and of death to be overcome are cultivated more easily on the networks of technologies and discourses than in the socioeconomic world. In contemporary Korea, the alpha human lives more happily in the future tense as a virtual entity, almost posthuman, than in the present tense as a mortal being. The challenge is then how to imagine "the posthuman that embraces the possibilities of information technologies without being seduced by fantasies of unlimited power and disembodied immortality" ([Hayles 1999: 5](#); also quoted in [Tufekci 2012](#)). It can start with taking the alpha human out of the speculative future and recontextualizing it within the political and social present.

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