Questioning the South Korean Smart Border:

A Critique of Surveillance Racism, Biometric Identity, and Anti-Immigration

Minkyu SUNG

Abstract

This paper examines the border as an assemblage of surveillance technologies that exert a contentious claim to algorithmic accuracy based on race-embedded biometric data processing. I offer the term surveillance racism—a regime of normalization in which the technical reification of race for the biometric database configures anti-migration and anti-refugee discourses for the well-being of a population or nation. I put forward the border as a biopolitical enclosure in which biometric monitoring through security and risk calculations of threat to the state generates, propagates, and maintains discourses of racism. A discussion of South Korea's Integrated Border Management System uncovers the workings of a biopolitical enclosure that is committed to constructing a claim about the survival of the Korean nation pitted against the peculiar racial category of unhealthy immigrants from non-Western, developing countries.

Keywords: biometrics, border control, digital enclosure, surveillance racism, biopolitics, South Korea

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Introduction

In 2018, South Korea—which boasted of being the first Asian country to enact its own refugee legislation in July 2013—found its citizens embroiled in growing anti-refugee sentiment. It was reported that a rapid rise in the number of Muslim asylum seekers, including 561 Yemenis who arrived on Jeju in the first half of 2018, had inflamed Islamophobia (Lee and Choi 2018). It was South Korean conservatives and right-wing groups, however, who framed those asylum seekers as taking advantage of Jeju's visa-waiver program to pursue employment while fleeing their country as murderers, rapists, or draft dodgers. As a consequence of these amplified anti-refugee assertions, within a month, more than 700,000 South Koreans had signed an online petition to the Blue House asking the liberal-left Moon Jae-in government to abolish visa-waiver entries for asylum seekers' country of origin and to revise the Refugee Act along with making constitutional revisions. In their anti-refugee protests in the streets, conservatives, right-wing groups, and major opposition party lawmakers invoked ultra-nationalist racism in their slogan, "The Korean Populace Must Be Prioritized," pitting the South Korean public against refugees for economic welfare, public safety, and national security (Choe 2018).

South Korean intellectuals and humanitarian activists critically engaged in these racist politics, aptly situating South Koreans' anti-refugee sentiment in the political trajectories of anti-discrimination politics and multiculturalism policy in South Korea, as well as in the broader context of the recent intensification of European and American right-wing populists' anti-immigration and racism (H. Kim 2018). International relations and legal scholars have also addressed racism and the racial politics of refugees in their lengthy asylum application processes at the South Korean border (Soh and Lund 2014; Ha 2019). While a politics of border-crossings within the field of South Korean migration and multiculturalism studies considers a set of social, political, and legal apparatuses amenable to the reinforcement of racism and anti-immigration, the South Korean border's socio-technical surveillant assemblages—utilizing biometrics and enlisting algorithmic tracking for racial profiling and classification—constitutive in assessments of

risk for migration, are rarely considered in critically investigating racial and racist discourses at/beyond the border. I suggest that this critical lacuna be filled in the attempt to contextualize anti-immigration politics at the intersection of criminalization and information capitalism (Lee et al. 2018; Madianou 2019).

The shifting politics of information capitalism, which scholars suggest operates through techniques and practices of surveillance, including data collection and algorithmic processes, call attention to what Lisa Nakamura calls "the power of race as a social identifier" (Nakamura 2009, 153). The "social sorting" of migrants at borders is enabled by "the visa regimes applying to each country" in which the migrant populations' risks and worth are racially coded for inclusion and exclusion in a host society (Lyon 2003; Bowling and Westenra 2018, 72). Migrants placed within race-nationality hierarchies at the border find themselves "subjected not only to threats of being criminalized, imprisoned, and deported as irregular migrants but also to more mundane forms of monitoring and racialized othering" (Lee et al. 2018, 14). The racial sorting of migrants makes a claim to certainty and justification in a global anti-terrorism and anti-immigration context (Ajana 2015; Vukov 2016; Trujillo-Pagán 2014; Phan and Wark 2021). The racialized body politic is enrolled and circulated in the gathering, sharing, and retention of its biometric data for preemptive and predictive purposes, with the presumption that the desirable level of mobility and security at the border is best achieved in the implementation of biometric surveillance (Vukov and Sheller 2013).

In this paper, I examine the border as an assemblage of surveillance technologies that exert a contentious claim to algorithmic infallibility based on race-embedded biometric data processing. For analysis, I offer the term *surveillance racism*, defined as a regime of normalization in which the technical reification of race for biometric databases configures, and commits to, anti-migration and anti-refugee discourses for the well-being of a population or nation.[1] Similarly, sociologist Simone Browne critically

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1. Racism signified through biometric data processing does not assume "a given, natural division of the world's population, but [testifies to] the application of historically and

discusses what she terms "racializing surveillance," which "most often upholds negating strategies that first accompanied European colonial expansion and transatlantic slavery that sought to structure social relations and institutions in ways that privilege whiteness" (Browne 2015, 17). Browne's cogent analysis uncovers the material manifestation of racial prejudice "cast by the disembodied gaze of certain surveillance technologies (for example, identity card readers and e-passport verification machines) that can be employed to do the work of alienating the subject by producing a truth about the racial body and one's identity (or identities) despite the subject's claims" (110). I suggest that racial thinking institutionalized in the design of surveillance creates the ways in which populations are deployed and disciplined "for productive efficiency and risk reduction [as] essential means for managing a growing industrial economy" (McWhorter 2017, 288–289). The normalization of epidermal thinking programmed for transnational, unequal labor forces in an advanced economy poses a challenge to the politics of racism in a non-Black/White binary capitalist nation. As I demonstrate in later sections, for example, in South Korea the question of race is not simply enacted by skin color but is invoked by the idea of being foreign, a concept that serves the well-being of the Korean nation. A discussion of surveillance racism can help problematize the border as a discursive site that seemingly embraces surveillance technologies that not only mediate racism imposed outside the border, but also produce forms and practices of racism that are frequently manifested in, or imbricated with, different hegemonic claims to crime prevention, labor market reform, and immigration.

     At this point, it is worth briefly contextualizing the racism in South Korea's immigration control policies. Presumably, racism has served South

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culturally specific meanings [of races] to the totality of human physiological variation" (Miles and Brown [1989] 2003, 89). In this regard, my use of the term racism draws on Robert Miles's critique of "the study of race relations," in which "writers have employed uncritically the common-sense notion of 'race,' reified it and then attributed it with the status of a scientific status" (Miles and Brown [1989] 2003, 90). Racism in (South) Korea has likewise been differently configured at different historical times and places. For more historical discussion, see Tikhonov (2012) and N. Kim (2015).

Korea's immigration control (National Human Rights Commission of Korea 2019). For example, the country's desperate need for low-paying manual labor—shunned by domestic Koreans—began in the early 1990s, attracting large-scale labor importation from China (predominantly ethnic Koreans) and South Asian countries, such as Vietnam, Indonesia, Bangladesh, and the Philippines (A. Kim 2009, 75). Currently, the South Korean government's Employment Permit System categorizes all types of unskilled foreign labor into an H-2 work visa,[2] in which foreign labor migrants from Cambodia, Vietnam, Nepal, Thailand, and Myanmar, for instance, are only attributed to unskilled manual labor for agriculture, stockbreeding, and fisheries. Racialized immigration control can also be found in the country's policies on foreign brides—mostly from Southeast and Central Asian countries— who marry aging bachelor farmers in rural parts of South Korea. While sacrificing themselves to their spouse's family businesses, foreign brides are subject to "the visa status of marriage immigration for reproduction and upbringing of the Korean nation" and are constantly vulnerable to domestic violence in their marriages (National Human Rights Commission of Korea 2019, 160). In short, South Korea achieves its ambition of becoming a multicultural country by embracing institutional racism. But South Korean immigration control policy also began to face intense anti-immigration pushback from right-wing and conservative groups when the government in 2006 officially declared a shift from being merely a labor-importing country to a multicultural society, a turn driven by the hegemonic principles of cultural integration and social adaptation (N. Kim 2015). As discussed in later sections, these socio-political landscapes of institutional racism and

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2. The Overseas Korean Act is another crucial socio-legal domain for institutional racism shaped by post-Cold War anti-communism politics. Since the legislation of the Act in 1998, ethnic Koreans in China (Joseonjok) and former-Soviet Union countries (Goryeoin) have still been made mostly ineligible for legal stay by the F-4 visa status that allows overseas Koreans to pursue employment without restriction in the South Korean labor market. As a Congressional review admitted at the time, anti-communist diplomatic concerns fed into the legislation (Choi 2021, 24). As of March 31, 2021, more than 98 percent of H-2 visa holders consisted of Joseonjok and Goryeoin (Choi 2021, 18–19). Special thanks to a manuscript reviewer for raising the significance of this matter.

anti-immigration in a post-9/11 global politics called for a smart border system that could respond to the South Korean public's concern about increased crime by foreign residents.

In what follows, first, I put forward the border as a biopolitical enclosure that maintains interactive surveillance through users' submission of their biometric data, which in the process makes the border itself a productive space for reinforcing surveillance racism. I then examine the technical reification of race at the South Korean border, analyzing the development and operation of South Korea's Integrated Border Management System in a time of anti-immigration. The South Korean case draws critical attention to how the border is not just a site of racialization that merely repeats a dividing practice outside of it; it also engineers institutional and administrative forms of racial identification and classification integral to the technical arrangement of national security in society.

The Border as a Digital Enclosure

Kevin D. Haggerty and Richard V. Ericson (2000) characterize a contemporary shift in surveillance, enabled by ubiquitous computing technology, as "rhizomatic," in Deleuze and Gattari's terms. While it is acknowledged that the border is still predominantly a space that maintains a top-down hierarchy of observation in surveillance, as Haggerty and Ericson (2000) suggest, the border can also be seen as a striated space in the Deleuzian sense, manifested in the physical and cognitive integration and division of citizenship and immigration along with numerous security and surveillance devices for identifying, classifying, and discriminating individuals (and objects) of value and risk. Fingerprinting and facial recognition collected in immigration checks at airports transform the body into indexical forms for acceptance or rejection, confirmation or denial, and inclusion or exclusion; this bodily transformation also allows law enforcement and private-sector industries such as airline companies to access and use those biometric data for other purposes of public safety and security. The rhizomatic control at the border remains powerful, to the

extent that the striated space can successfully articulate and achieve the objectives of identifying, classifying, and profiling individuals that are concretized in different levels of access, treatment, and mobility. Put differently, the rhizomatic capability of surveillance techniques deployed at the border necessitates embedding societal concepts, categories, and dimensions—such as race and class—into the technical operation of the border.

Under these socio-technical circumstances, one of the attributes that makes the border most provocative—and likewise appealing to those who administer and control flows of (im)migration—is that travelers increasingly become subject to submission of their biometric information for entry into (and departure from) a country. Beginning in January 2012, for example, all foreign visitors at all South Korean ports of entry were required to submit to fingerprinting and facial recognition. South Korea's Ministry of Justice removed the prior-registration requirement for automated immigration control services—using fingerprint scanning and facial recognition at the border—in 2017 (for South Korean nationals) and in 2018 (for foreign visa holders). Currently, South Korean international travelers aged 19 or older are not required to fingerprint or pass through the facial recognition kiosk at the South Korean border. Instead, their fingerprints and facial photos are readily retrieved from—shared across—the digital databases of the Ministry of Justice and the Ministry of the Interior and Safety, as well as the local police department of their current residential address.

These examples bespeak the way in which the border becomes an increasingly productive space of surveillance and control by collecting, processing, and sharing the biometric data of international visitors and immigrants as well as of domestic citizens.[3] The border, at first glance, can be seen as a quasi-symmetrical space, thanks to the questionable assumption of the technical neutrality of biometric technology by which interactive

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3. South Koreans' lavish submission of their biometric data may be deemed largely inadvertent, demonstrating the workings of paternalism programmed and exercised through the South Korean resident registration system, which has successfully justified biometric surveillance on the South Korean public that requires fingerprinting and facial photos (Sung 2019).

surveillance participants believe that their biometric data are equally measured and accurately represented for identification purposes. However, the asymmetrical attribute of the border is enabled not only by the differently calculated levels of privilege, access, and risk accorded to individuals, but also by the mythified promise of technical neutrality and infallibility in biometric processes.

To explain the workings of surveillance at the border, I draw attention to media scholar Mark Andrejevic's concept of "digital enclosure," an uneven process of enabling digital media users' ubiquitous interactivity in computerized networks "through the ongoing generation of information" about themselves while "separat[ing] users from the means of interaction, transaction, communication, and expression" (Andrejevic 2007a, 120; 2007b, 304). Andrejevic (2007a, 3) discusses digital enclosure—which "evokes the land enclosure movement associated with the transition from feudalism to capitalism"—as mainly pertinent to a shift in the political economy of digital media industries that maximize profits out of interactive consumer data collection. In digital enclosures, individuals are subject to the extraction of user data by surveillance technologies, which they believe serves their interest in, and demand for, interactively mediated diverse experiences in digital spaces; however, the promise that such data collection will be used for privacy and safety, on the contrary, reinforces the ideological excesses of security and control for a responsible citizenry. Participants, in their immaterial labor processes of data submission, are alienated from the promise of privacy and safety as they accept and participate in the monitoring of their interactive behavior by digital media.

This critique of digital enclosures suggests that media users voluntarily participate in interactive surveillance practices within the confines of commercial digital media. However, first, it does not necessarily suggest that interactive participation in digital enclosures is always non-compulsory, given the prevailing corporate capture of privacy that media users are locked into via the digital media industry's privacy consent (Regan 1995). Nor does it suggest that the interactivity of digital enclosures is incompatible with the compulsory nature of the border itself. As Andrejevic (2007a) also makes clear, the concept of interactivity enabled for—or more precisely, imposed

upon—participants in digital enclosures is an illusion that alienates them from the promise of privacy and safety. In a similar vein, migrants comply with biometric submission at the border under state control, being promoted to the status of (inter)active participants in (inter-)national security through a neutral and accurate means of racial profiling. This promise of security and safety keeps them in a position to be put to work with the objectification of the racial body for inclusion in a host society. Migrants' participation in interactive biometric data collection at the border is apparently compulsory. But it also takes the form of "self-disclosure" to verify their status and qualification for labor markets, alleviating anti-immigration discourses (Nakamura 2009, 152). Second, digital enclosures are not merely confined to media industry ownership. Central to the discussion of digital enclosures is the way in which the illusive idea of interactivity is imposed on the media user subjected to the divide between those who own the means of (data) production and those who must submit their (data) labor for access to these means. For example, the outsourcing case of the South Korean government/ artificial intelligence (AI) industry partnership—in which with no legal transparency, private AI businesses were permitted to take advantage of more than 170 million international travelers' (including migrants') submitted biometric data at the South Korean border for the development of AI-driven national security and policing measures—demonstrates the shifting politics of digital enclosure beyond the confines of media ownership (Cheon 2021).

In sum, the digital enclosure critique helps explain some of the ways in which individuals' participation in biometric data collection isolates them from the representation of their racial or ethnic identity. Biometric monitoring fixates on essentialist characteristics of identity—for example, skin color and country of origin—to maximize security and control functions at the border. In the interactive process of digital enclosure, surveillance participants are prompted to accept the practice of biometric racial profiling, believing that "the *ex post facto* reconstructions of a person's behaviour, habits and actions" must be incontrovertible proof of identity (Haggerty and Ericson 2000, 615). This participatory promise is seemingly improbable, however, because the participation in biometric surveillance

itself is an act of enclosing, not inviting, the participant him/herself into a peculiar layer of racial categorization. The promise also becomes considerably skeptical given the contingent and contestable nature of the knowledge production of biometric and border surveillance technologies. For example, as Kelly A. Gates (2011, 58–59) nicely articulates, "the lack of mature technical standards" in the adoption of biometrics "provides clear evidence that by no means has the early effort to institutionalize facial recognition and other biometric technologies been a simple matter of plugging in shiny, new, seamless functioning devices." The border is a space where the certainty of biometric surveillance must be contentiously justified and reinforced in the digital enclosure division between those who experiment with, manage, and run biometric techniques of surveillance racism and those who are alienated from their own biometric data—which are supposed to represent them adequately but fail to do so in the mythic embrace of technical neutrality and infallibility.

Biopolitics at the Intersection of Surveillance and Racism

The discussion of the border—built into a digital enclosure that maintains interactive surveillance of immigrants' biometric data, and thus which becomes an increasingly productive space for reinforcing surveillance racism—therefore sheds light on the ways in which the space is inherently made for racial politics. Many critical surveillance studies have already documented that as early as the late 19th century, biometric technologies such as photography, the phonograph, and fingerprinting were utilized as surveillance techniques for social and political measures in colonial rule, crime detection, and public safety in North America, Europe, and East Asia (Sekula 1983; Jäger 2001; Lauer 2011; Maguire 2012; Sung 2019).

Early biometrics pioneers in late 19th-century Western society include the English eugenicist Francis Galton and the Parisian police official Alphonse Bertillon. As Allan Sekula (1986, 18) describes, by "combin[ing] photographic portraiture, anthropometric description, and highly standardized and abbreviated notes on…a card," Bertillon sought to

establish "a comprehensive, statistically based filing system" on recidivists. In his 1892 work *Finger Prints*, Galton attempted, but eventually failed, to locate "'Negro' patterns" in fingerprints (Maguire 2012, 597–598). To prove his biological determinism on race, Galton even fabricated biometric data from facial photos "by a process of successive registration and exposure of portraits in front of a copy camera holding a single plate" (Sekula 1986, 47). The earlier 18th-century quasi-scientific, racist "hermeneutic paradigm[s]" of phrenology and physiognomy, ambitiously operating under the utterly false belief that "the surface of the body [bears] the outward signs of inner character," fed into those biometric techniques to classify and categorize criminals, barbarians, and abnormals in racist terms (Sekula 1986, 10–11).

The historical specificities of the emergence of biometrics as surveillance techniques in the context of Western imperialism and industrialization/urbanization testify to the embeddedness of racism in the operation of surveillance technologies. This does not mean, however, that I am approving, or relying on, a stronger claim to the making of technology per se solely designed to monitor populations. Nor does it imply that race is the only domain or resource for which modern surveillance technologies were shaped. My point is that the institutional and bureaucratic operation of biometric border control technology in scope and scale can be adequately explored only to the extent that the colonial legacies of surveillance technology in the management of colonized populations by Western power and their subsequent incorporation into the administrative rationality of post-World War II society are taken into account (Berda 2013). Thus, highlighting this critical connection along with the digital enclosure critique, I argue that the border can be seen as a *biopolitical enclosure*, in which biometric monitoring through security and risk calculations of threats to the state generates, propagates, and maintains discourses of racism.

Michel Foucault (2003) discusses the modern shift of political power, beginning in the 18th century, exercised through mass-monitoring of populations in order to intervene, regulate, and modify population problems as political and economic effects that arise from social realms such as birth and mortality rates, public hygiene, and epidemics. Foucault terms this new power mechanism "biopolitics," or the exercise of "biopower," and pays

particular attention to the functions of racism as a distinctive and necessary mechanism of exercising biopower. For him, racism is not just about conflicts between different races, but rather about the way in which a race struggle is introduced, maintained, and perpetuated in extremity. Foucault argues that, in the biopolitical mechanism, racism's concern is less with targeting and representing individuals as a multiplicity of races than with framing the race struggle in binary terms captured in the phrase: "the break between what must live and what must die" (254). Biopolitics finds that the race struggle is most effectively maximized when questions of race are translated into biological terms. In other words, the racial struggle of biopolitics should be fetishistically grounded in biological differences between two races, through which security and risks necessary for the domination and control of one race over another become calculated. The biopolitical strategy of maximizing the necessity of security and risks is used to establish and perpetuate a state of war, akin to "the state of bestial savagery in which living individuals devour one another" (Foucault 2003, 92).

Foucault's discussion of biopolitics needs to be understood in terms of the specificity of modern racism at particular historical times and places that articulates a multiplicity of forms of governmentality as differentiated principles of government programmed through, for example, scientific practices, public policies, and jurisprudence, as well as state apparatuses (Genel 2006; Rasmussen 2011). The governmentality mechanisms of biopolitics aim to expose a society to potential risks, problems, and confrontations, to locate and secure discursive domains of power mechanisms, and to calculate the efficiency and effectiveness of an operation that warrants and modifies power relations dispersed across different social domains. The biopolitics of the race struggle thus adjusts its tactics to address obstacles to these governmentality mechanisms. As I discuss in the next section, the racialization of transnational migrant labor in South Korea's low-wage and low-skill labor market demonstrates the workings of governmentality mechanisms in calculating measures of the nation's economic prosperity and anti-crime policing that ensued from South Korea's economic moratorium in the late 1990s—the so-called "IMF Crisis." This

transnational challenge was part of particular sociopolitical conjunctures that led to surveillance racism signified through the contestable certainty of biometric surveillance techniques. The border thus became a space of biopolitical enclosure, in which a social relationship built on the racialization of migrant workers is sown, birthed, and cultivated through biometric data monitoring.

In the next section, I discuss South Korea's smart border initiatives and their technical installations, examining the Integrated Border Management System (IBMS), which has been touted recently as part of the front lines preemptively protecting the nation from international terror and foreign crimes through the exercise of biometric surveillance techniques. The IBMS was initially developed in the context of the global war on terror after the 9/11 events, along with the South Korean government's ambitious plan to make the nation a global hub for the most competitive and efficient services among transnational networks. The biopolitical enclosure of the border, signified through the smart border operation, can also be comprehended at the critical juncture of the mass criminalization of immigration.

Being Foreign in Excess of Crime Prevention

The liberal-left Roh Mu-hyun government (2003–2007) announced in May 2003, resonating with human rights violations concerns from civil activists, that foreign residents' fingerprinting at immigration checkpoints would not be required for two-year stays in South Korea. When the conservative Lee Myung-bak government (2008–2012) came to power, however, its Minister of Justice, Kim Kyeong-han, reported to President Lee in December 2008 that the fingerprinting requirement would be reinstated, especially given that the number of foreign residents in 2007 exceeded one million, together with 220,000 undocumented residents. Accordingly, South Korean news reports cited foreign residents' crime data, amplifying public concern. According to the Korea National Police Agency's (2019) statistics, the combined annual number of crimes by foreign residents in the major felony categories of murder, robbery, rape, narcotics, theft, violence, and fraud were

4,328 in 2001, 5,221 in 2002, and 6,144 in 2003. Shortly after the removal of the fingerprinting requirement in 2003, the annual number substantially increased to: 9,103 (2004), 9,042 (2005), 12,657 (2006), 14,524 (2007), and 20,623 (2008). What was not adequately addressed at the time, however, was that South Korean nationals' crime rates were higher than those of foreign residents from 2004 to 2008 (Statistics Korea 2013, 279). Nonetheless, proceeding with the revisions to the Immigration Control Law, in June 2011 the South Korean government announced—prior to the full implementation of fingerprinting and facial recognition beginning in January 2012—a plan to implement the Fingerprints Database for Foreigners Liable to Crimes Program (Ministry of Justice 2011).

However, even after its full implementation in 2012, using biometric surveillance as a set of preemptive anti-crime measures seemed not as effective as expected. For example, the national police data (Korea National Police Agency 2019) present a confounding result of largely constant annual increases in foreign residents' crime in the above combined major felony categories: 10,421 (2012), 10,957 (2013), 14,269 (2014), 17,053 (2015), 17,748 (2016), and 16,855 (2017).[4] Nevertheless, according to a government-funded large-scale public survey conducted in 2014, the South Korean public still believed that all non-Korean aliens subject to the proposed extensive mandatory biometric data collection and screening (palm prints, dental radiographs, gait, iris and facial recognition, and fingerprints) upon entry to the country must be prioritized over any major felonies in any citizenship status for public security (Yun et al. 2014, 309–325). The racial sorting of foreign residents enabled by biometric surveillance at the border operates in excess of crime prevention, invoking the idea of being foreign as being vulnerable to disproportionate policing and government scrutiny.

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4. Discussion of those increases in foreign resident crime from 2012 to 2017 needs to reflect the correspondingly constant annual increases in the number of foreign residents during the same period: 1,445,103 (2012); 1,576,034 (2013); 1,797,618 (2014); 1,899,519 (2015); 2,049,441 (2016); and 2,180,498 (2017). Public concern over immigration thus cannot be merely overestimated by the politics of the numbers.

The Integrated Border Management System as an Assemblage of Biopolitical Enclosures

The South Korean government's reform in immigration control relying on biometric surveillance was also originally initiated by an administrative agenda that aimed to restore and strengthen the nation's transnational economic competitiveness in the global economy after the country's financial moratorium in 1998. One of South Korea's strategies was to make the border both a space for protection and an opportunity for the nation's restoration and strengthening. On September 22, 2001, liberal-left President Kim Dae-jung (1998–2002) announced the National Logistics Plan, which aimed to develop Incheon-Seoul International Airport as a logistics hub for Northeast Asia; this plan was subsequently expanded by his successor, President Roh, to make the Incheon-Seoul area a financial hub in the region to better attract global logistics to the country (Rimmer 2015, 264). To achieve these goals, a new surveillance-aided automated process for immigration control—through which travelers only spend a few seconds in immigration checks at the border—was implemented, ranking the airport, for the first time, number one on the Airports Council International's Airport Service Quality review in 2005. In this early stage of border control reform, biometric monitoring of travelers was deemed simply a technical measure for convenience and efficiency (Ministry of Justice 2014, 23–25).

Under this administrative scheme, the IBMS was introduced and subsequently expanded beginning in 2005, consisting of an array of technical arrangements, such as the Advanced Passenger Information System (APIS), Passenger Name Record (PNR), Smart Entry System (SES), Interactive Advance Passenger Processing (IAPP), and Foreign Biometric Identification System (FBIS) (Ministry of Justice 2014, 20). All of these technical systems have operated by amassing and retaining foreign visitors' fingerprinting and facial recognition at immigration checks since the biometric monitoring requirement was reinstated in 2012. Like the biometrics-enabled border control surveillance systems of other developed Western countries such as in the EU (Moreno-Lax 2017), the IBMS is also fundamentally designed to be an apparatus of surveillance racism in which

the biometric database is inherently folded into the racialization of immigrant populations at the border.

First, since the implementation of the first guest migrant worker program—called the Industrial Trainee System—in 1991 to fulfill the imminent need for low-skilled and low-wage labor forces in declining domestic manufacturing industries, South Korea has consistently imported E-9 and H-2 Work Permit visa-holding (i.e. unskilled) migrant workers, predominantly from China (i.e. ethnic Korean descendants in China) and South and Southeast Asian countries, including Nepal, Cambodia, Myanmar, Indonesia, Vietnam, Thailand, Sri Lanka, and Bangladesh (J. Kim 2003; Statistics Korea 2019). Some of these workers remain in South Korea as undocumented laborers after their visas expire; the average undocumented immigration status change rate of migrant workers from these countries after visa expiration reached approximately 42 percent in 2010 (Lee and Jeong 2012, 32). Xenophobia and racism were significantly on the rise at the same time, as South Korean media spotlighted several striking murders and sexual crimes committed by undocumented immigrants (Koo 2018). This is the backdrop against which the IBMS database divides visitors at the border into two large groups: "normal travelers" and "foreign travelers as a potential threat to national security" (Ministry of Justice 2014, 37–39). The former is classified into two groups: "Korean national" and "foreign." The latter is described largely as foreign visitors from "developing countries." Here, the foreign classification has two sub-divisions represented by the degree of economic prosperity of the traveler's country of origin: "developed countries" and "developing countries." In this arbitrarily assigned classification, short- or long-term foreign visitors from developing countries arriving in South Korea for business and employment are attributed traits associated with potential undocumented immigrants. In South Korea's border control system, data pertaining to migrant workers' country of origin do not merely record their nationalities, but rather serve as a rhetorical device of their racialization, "creat[ing] hierarchies of foreign Others beyond a black/white dichotomy" (Lee et al. 2018, 15).

In addition, in this process of racializing migrant labor, foreign visitors from developing countries are included in the category of potential threats

to national security. The foreign visitor category that is first tested by the FBIS is foreign visitors from developing countries whose undocumented immigrant populations are conceived as having a suspicious connection to national security (Ministry of Justice 2018a, 46). Because the foreign visitor category is standardized as a major part of the potential threats to national security in the FBIS database, foreign visitors from developing countries are presumed in the technical measurement to be already dangerous people who existed "*as such* prior to the development of that system" (Gates 2011, 114). The Biometric Analysis System for Experts (BASE) software based on the FBIS—which was further developed in 2013 shortly after the reinstatement of foreign visitor biometric data collection in 2012—provides a case in point. In January 2018, the Ministry of Justice publicized an achievement of biometric surveillance, reporting the preemptive detection of 4,790 fake passport crimes that had been enabled solely by using BASE to analyze fingerprints and facial recognition in the IBMS database, where these digitalized data are retained for more than 100 million foreign visitors (Ministry of Justice 2018b). According to the Ministry of Justice, however, the IBMS database for the BASE analysis was strategically constructed using the immigration control database of the undocumented migrants deported from South Korea.[5] From 1990 to 2020, China, Vietnam, Mongolia, and Thailand consistently ranked the top four countries on the deportation database (Statistics Korea 2021). Among the 2018 BASE-detected 4,790 fake passport criminals at the border, Chinese (including Joseonjok) ranked top (1,385), followed by Indonesians (698), Mongolians (531), Filipinos (360), Thais (222), and others (1,774) (Ministry of Justice 2021).

Second, algorithmic racial (or ethnic) categories, such as "Western vs. non-Western," "Chinese vs. non-Chinese [i.e. ethnic Korean Chinese]," and "non-Chinese Asian vs. South Asian" within the IBMS catalogue (Ministry of Justice 2018d) are pre-set biometric searches for identification. These exclusionary binary categories are seemingly contrived to target people whose racialized classification (e.g., Southeast Asians, ethnic Korean

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5. Lee Jabin, Chief, Immigration Information Division, Ministry of Justice, interview by author, via telephone, August 30, 2021.

Chinese) is profiled in the above border control scheme for national security and public safety. Surveillance racism toward immigrant populations vividly manifests in the South Korean government's immigration policy and strategies to secure "healthy populations for the nation" (Ministry of Justice 2018c, 7). These healthy migrants are defined as a critical mass in the maintenance of public safety and economic prosperity, a lack of which has resulted from the increase in low-skill migrant labor forces and their propensity to remain illegally for jobs. In short, the unhealthy migrant rhetoric insists that they have deprived South Korean nationals of opportunities in the labor market (see Ministry of Justice 2018c, 15–16), conjuring nativist condemnation of those migrant laborers. The claim of healthy immigration is addressed to what is called "expert foreign labor forces" (E-7 Work Permit visa holders) whose highly educated job credentials include college faculty, researchers in science and engineering fields, medical professionals, corporate entertainment professionals, and native English-speaking tutors who come from developed Western countries, according to South Korea's Immigration Control Law (Ministry of Justice 2018d). As Etienne Balibar (1991) critically reflects, nationalism feeds on racism in modern societies.

Third, the Ministry of Justice (2018a, 52, 79–80) proposed that all foreign residents be assigned a Biometric Identification Number matching the fingerprint and facial recognition data retained in the government database; this plan seeks to develop an algorithm called the Biometric Identity Estimation Model, by which identity matching conducted through the biometric database can improve the accuracy and efficiency of screening a large number of suspicious and dangerous foreign visitors. This proposed FBIS innovation integrates what Mark Maguire (2012, 602) calls "soft biometrics," such as gender, race, height, and weight, into "hard biometrics" of fingerprints and facial scans in order to "enable fast matching in multimodal biometric systems wherein the quality of the 'hard biometrics,' such as the face, results in increased processing time delays and costs." As one can see in the multimodal BASE analysis interface (Fig. 1), the integration of "soft" information into "hard" biometric analysis testifies to the necessity of human operation, acknowledging the contestability of

fingerprinting and facial recognition techniques in their own terms of accuracy and efficiency (Gates 2011). For example, the South Korean government's Board of Audit and Inspection found that in 2015, immigration control officers at all South Korean ports of entry arbitrarily authorized 1,454 cases of false acceptance out of 186,949 uncertain matches in the BASE matching scores (Board of Audit and Inspection 2016, 60–62).[6]
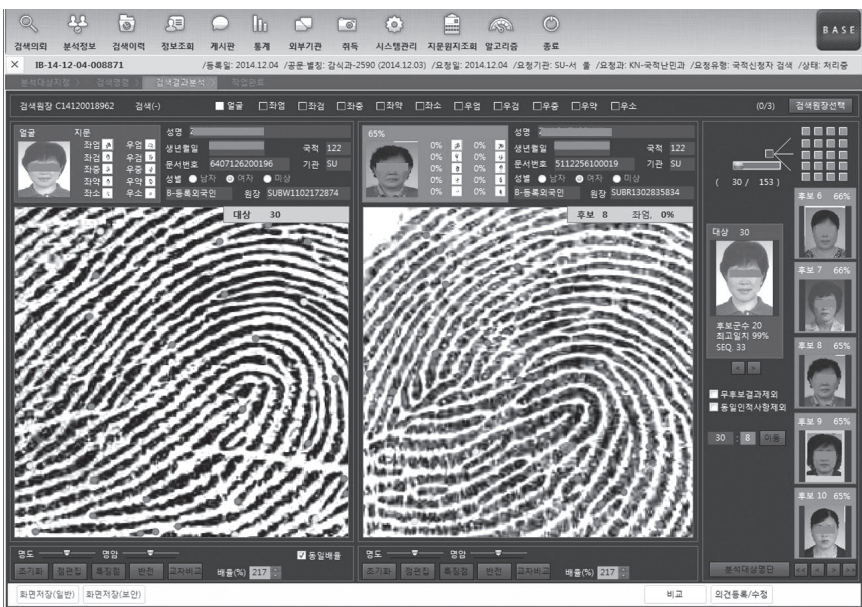

Figure 1. A BASE analysis interface presenting soft biometrics integrated into hard biometrics to enhance accuracy and efficiency.

Source: Ministry of Justice (2018b, 2).

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6. According to the Board of Audit and Inspection report, the threshold index of the BASE matching scores for facial recognition is 60 out of 100. This means that someone whose facial recognition index reaches more than 60 must be fit for further interrogation. In decisions on an Official Information Disclosure Act request filed in August 2021 regarding the threshold index, the Ministry of Justice (2021) states that its formula is not permitted

Moreover, the interface shows one Asian female subject under scrutiny for immigration control presenting a series of scores between 65 and 66 percent in a facial recognition match while being compared with female Asian candidates within the IBMS database (in the far right column of figure 1). With the threshold number of the BASE analysis undisclosed, those match scores do not explain much about error rate (i.e., the false acceptance rate [FAR] and the false rejection rate [FRR]), which is usually set as 1/1000 (Simonite 2019). It is unlikely to be accepted, however, that this process of identification, having very limited parameters, can demonstrate the accuracy and efficiency of multimodal biometrics as a stand-alone identification technique. The error rate and the integrity of the match are affected by the measuring performance, including what threshold number is set for a match. One can infer the contestability of the BASE's measuring performance from the South Korean government's Ministry of Information and Communication's 2004 final report in the development of the BASE submitted by a Samsung-led private contractor consortium (Ministry of Information and Communication 2004, 8–9, 205–206): the BASE's facial recognition technique makes a high match rate of 98 percent (i.e., 2 percent of the FRR) in a high threshold set with 0.01 percent of the FAR; however, it is also reported that the FRR dramatically increases to 14 percent in a slightly different degree of lighting, meaning that 14 out of 100 travelers would have been falsely accepted at the border. Many facial recognition studies have demonstrated that the measuring performance of facial recognition technologies is affected by the variability of the human face's inherent features, including skin pigmentation and albedos, as well as by artificial contributors including lighting, rotation, and makeup (Murray 2009).

Here, we should not merely emphasize these ambiguities and failures as technical obstacles to overcome and resolve. Biometric data analysis may find a better match rate in its desired degree of accuracy when it has a small

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to be disclosed due to national security concerns and a legally protected business secret of the BASE developers—SK CNC and Samsung SDS, two South Korean *chaebol* subsidiaries. A lack or limit of oversight and access to the inner workings of algorithmically predictive policing tools poses a seriously critical legal challenge to any person or group within/ outside the database (Pasquale 2020).

data setting (Hu 2017, 131). It should be noted, however, that different racial and ethnic communities have been inherently a critical factor when the technical fallibility of biometrics is taken into account by the biometrics industry (Browne 2015; Magnet 2011, 28–29). As my analysis of the IBMS has demonstrated, racial categories must first be created in algorithm design, and then a search for biometric matches can be run accordingly against the entire database. The BASE analysis serves a symbolic function of what can be called the *fetishism of biometric identity*, in which the question of race becomes abstract or invisible in the substitution of biometrics as a scientifically proven, neutral, or objective method of identification. The idea of *being foreign* invoked in the racialized database of the IBMS configures, or commits to, anti-immigration and anti-crime prevention within popular domains, such as films about South Asian migrant females married to South Korean rural husbands and internet forums about ethnic Korean Chinese vulnerable to constant criminal policing (S. Kim 2009; Yoon et al. 2018).

It is uncertain how the public safety and economic prosperity policy, grounded in this racialization of immigrants with high-skill expertise from developed Western countries, can serve the proposed "strengthening of human rights of immigrants and other migrant populations such as refugees" (Ministry of Justice 2018c, 58). The policy only reinforces surveillance racism in which immigrants' biometric data are collected, retained, and interpreted within the algorithmic regime of calculating and maintaining a social relationship based on binary racial categories. The South Korean government, moreover, insists that securing those healthy immigrants can help mitigate the South Korean public's concern over foreign residents' crimes mostly committed by low-skilled, "unhealthy" migrant workers (Ministry of Justice 2018c, 17). This moral panic rhetoric about immigrants—saying that South Koreans are suffering economic hardship due to the overflowing migrant workers (now turning out to be imminent dangers to the nation)—can be compared, for example, with California's Proposition 187 in 1994 (see Ono and Sloop [2002] for further details), in which undocumented immigrants must be made ineligible for public services under the unsubstantiated assertion that they are only criminals. The mass criminalization of immigration is far from withering

away in post-colonial democracies (Rumbaut et al. 2019; Miles and Brown [1989] 2003, 106).

Conclusion

I have demonstrated the politics of surveillance racism, in which interactive surveillance relying on biometrics at the border maintains and reinforces contentious claims to race. For critical investigation, I have found conceptually useful the idea of a biopolitical enclosure in examining the striated function of the border, where binary racial categories are justified to serve interactive biometric surveillance while isolating the surveillance participants from adequate representations of their identity on the racial dichotomy. The discussion of South Korea's Integrated Border Management System uncovers the workings of a biopolitical enclosure. Surveillance racism, integral to the discursive configurations of race at the border, is committed to constructing a claim to the survival of the Korean nation pitted against the peculiar racial category of unhealthy migrants from non-Western, developing countries. The practices and forms of surveillance racism can be found reverberating through the recent anti-refugee discourse in South Korea. A consistent pattern of the unsubstantiated discriminatory idea about non-Western migrants, that they are "basically 99 percent liars"—which a journalist recently observed immigration control officers mutually share at the border and beyond (quoted in National Human Rights Commission of Korea [2019, 131])—may be symptomatic of surveillance racism reinforced through biometric racial classification.

Biometric rhetoric from the advertisement of the BASE achievement conveys a claim to the ultimate replacement of soft biometrics with hard biometrics as a primary technique of identification. It is uncertain whether biometrics in the BASE can serve as a stand-alone monitoring technique that demonstrates its ability to confirm identification without recourse to algorithmic racial categorization. While fingerprinting and facial recognition are not infallible themselves, the fallibility of biometric identification relying on big data collection and processes needs to be addressed seriously.

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