

## **“Measurement of Life”: The Disciplinary Power of Racism**

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### **Introduction: discipline, biopower, and race<sup>2</sup>**

In *Discipline and Punish* Foucault articulates the emergence of disciplinary power in modern Europe. Unlike the classical sovereign power to possess the body and to dispose it, disciplinary power, argues Foucault (1979), operates on the body through a

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<sup>2</sup> There is inconsistency in Foucault’s use of the terms disciplinary power, biopower, and biopolitics. In *The Will to Knowledge* Foucault seems to suggest that biopower consists of disciplinary power and biopolitics: they are “two poles” – “*the disciplines: an anatomo-politics of the human body,*” and “*regulatory controls: a bio-politics of the population*”; they are “two directions” in “an era of biopower” (Foucault 1998, 139-40). In the 1976 lectures, in contrast, Foucault appears to differentiate between disciplinary power and biopower when he discusses the historical emergence of each technology of power. For example, he articulates the emergence of “the technology of biopower, of this technology of power over ‘the’ population as such” that is no longer “disciplined” but “regularized” (Foucault 2004, 247). In this chapter, I use the terms in the latter sense: disciplinary power, and Foucault’s account of discipline, is not part of biopower but they are two different, yet interrelated, technologies of power; and biopolitics as a form of political formation and organisation of the state underpinned by biopower, i.e., the technology of power directed at and regulates the biological conditions of the social body.

strategy of observation and normalisation (see also Foucault 2004, 181-3). In the following year Foucault (1998; 2004) extends his inquiry of the mechanisms of modern power beyond discipline to biopower which focuses on the biological conditions of the collective and social body as a whole. Despite differences in mode, location, and historical origin, these two technologies of modern power are not, emphasises Foucault, mutually exclusive; biopower is not a replacement of disciplinary power; instead, they co-operated and were superimposed (Foucault 1998, 146-7; 2004, 250-2). The modern government of sexuality was the quintessential example of this dual operation. As he puts it: “Sexuality exists as the point where body and population meet” (Foucault 2004, 251-2; see also 1998, 145-6). Foucault also suggests the dual operation of modern power in his 1976 lecture *Society Must be Defended* in the context of Nazi state racism (Foucault 2004, 259). However, this point is rather underdeveloped and he does not elaborate further how disciplinary power and biopower co-operate under the Nazi regime or modern racism in general. Reflecting this, perhaps, contemporary Foucaultian studies of race and racism tend to frame their theoretical scope of analysis predominantly in biopolitical terms. Equally, the disciplinary mechanisms of modern racism remain to be empirically explored.

This chapter examines the role of the body within the biopolitical strategy of modern racism during the years of colonialism since the late nineteenth century. I will do so with an aim to reconstruct Foucault’s accounts of biology, discipline, biopower, and modern racism in a holistic way. My intention here is to cast light on the crucial role of disciplinary power – understood not simply as surveillance but also as an epistemological ordering of life – in the development of modern, and biopolitical, racism. Foucault (2004) theorises modern racism in relation to socio-political

concerns with the biological conditions of “man-as-species.” With the emergence of evolutionary thought, including, and perhaps most notably, the theory of degeneracy, the old sovereign right to take life was reinvigorated and modern racism took a pivotal role in the exercise of this power: “The more inferior species die out, the more abnormal individuals are eliminated, the fewer degenerates there will be in the species as a whole, and the more I – as species rather than individual – can live, the stronger I will be, the more vigorous I will be. I will be able to proliferate” (Foucault 2004, 255). More contemporary theorists including Giorgio Agamben (1998), Robert Esposito (2008), and Achille Mbembe (2003) have extended studies of biopolitics, emphasising the power of death that is integral to the mechanisms of biopolitics and modern racism. While the nexus between sovereign power and biopower has been explicated by their works, little has been explored the relationship between discipline, biopolitics, and racism. How, if at all, does disciplinary power operate within the mechanisms of biopolitical racism? What is the role of the body – that is, “man-as-body” – in relation to the biopolitical practice of drawing a line between populations and races? Drawing on the colonial deployments of biometrics – understood broadly and literally as “measurement of life” – I argue that biopolitics, and its racist function in particular, does not only remain disciplinary but also is empowered by the disciplinarisation of scientific knowledges. The sovereign power to kill manifested in modern racism is, accordingly, interwoven with disciplinary power just as much as with biopolitics.

The chapter proceeds as follows: The first section revisits Foucault’s account of modern racism – or the modern modality of “race war” as he emphasises in the 1976 lectures – in the light of two correlative historical events. The first historical event is

European colonialism for which Foucault is sometimes alleged to have failed to account. The second is the emergence of biology and the entrance of the notion of life into history, which Foucault articulates in *The Order of Things* (2005). The purpose of my relational analysis is not just to make an important link between the notion of life, the disciplinary power of biology – or the life sciences more generally as to include other relevant subjects such as anatomy, anthropology, and pathology – and nineteenth-century race thinking. It is also to set up the context in which the surface of the body becomes a site of biopolitical configuration of populations and races, the argument which will be developed in the following section. The second section analyses the disciplinary and institutionalised observation and calculation of the body *vis-à-vis* race under colonialism in the late nineteenth century and the early twentieth century. The main focus is the colonial and racial deployments of biometrics or the “measurement of life” across the world. After examining the context of Europe and during European colonialism, the section moves on to survey the development and deployment of biometrics during Japanese colonialism in East Asia. The analysis of a case of non-Western colonialism is, I would suggest, of great importance for two reasons. First, it helps to highlight the role of geography in studies of race, racism, and colonialism. While the biopolitical strategy of modern racism, manifested in social Darwinist theories, can be globally generalised, its codification of populations and races is always geographically specific, an aspect I have explored elsewhere (Nishiyama 2015). Second, the analysis of the “measurement of life” also sheds light on the disciplinary power of the numerical ordering of race that exceeds the Eurocentric power-knowledge of skin colour. I argue that despite geographical variation in the mode of racism, the logic of number appears to have a profound impact on the global production of racial knowledge in the modern period.

**Colonialism and biology: revisiting Foucault's *Society Must be Defended***

In the 1976 *Society Must be Defended* lectures, as well as part five of *The Will to Knowledge*, which was originally published in the same year in French, Foucault theorises modern racism in relation to biopolitics in the nineteenth century. Foucault's theorisation of modern racism has been influential in the recent decades, especially since the publication of the 1976 lectures in English, and there have been various readings of it (for example, Bernasconi 2010; Elden 2002; Dillon 2008; Macey 2009; Mader 2011; Rasmussen 2011; Stoler 1995; Valverde 2008). This is not a space to provide a detailed exegesis of Foucault's 1976 lectures. The main purpose of this section is to reconstruct two seemingly disparate or unconnected notions in Foucault's theorisation of modern racism.

The first of these is the role of colonialism for which Foucault is sometimes alleged to have failed to account and on which postcolonial studies have expatiated. Mariana Valverde (2008, 138) argues, "Foucault makes no attempt to theorise racism independently of the sovereignty/biopolitics framework." "This is important," continues Valverde, "because as a history of racism the lectures would be very inadequate." Postcolonial scholars have long criticised Foucault's neglect of European colonialism in his theorisation of modern racism since even before the 1997 French publication of the lectures. Foucault's 1976 lectures were first introduced to the English speaking world in Ann Laura Stoler's *Race and the Education of Desire* (1995) which was in part a postcolonial critique of Foucault. Departing from Foucault's account of modern racism and his history of sexuality, Stoler (1995) explores how the racial politics of colonialism was entwined with the idea of

European bourgeois sexuality (see also McWhorter 2009). She (Stoler 1995) argues that biopower is intrinsically an imperial form of modern power, and suggests that the notion of “whiteness” underlies the formation of modern European sexuality and biopolitics. Stoler, among others, shows how Foucault’s theorisation of modern racism as a way of introducing a break between “what must live and what must die” (Foucault 2004: 254) – which Foucault illustrates in the case of the Nazi regime – was deeply embedded in European colonialism and their imperial projects.

However, it should be noted that Foucault, albeit rather schematically, does acknowledge the role of colonialism in the 1976 lectures. For example, he compares the discourse of the Norman Conquest during the Middle Ages with European conquests of the Americas, with reference to a parallel between William the Conqueror and Charles V (Foucault 2004, 102-3). Foucault is careful to note that it was European colonial practices abroad that were brought back to Europe since the end of the sixteenth century. He emphasises:

It should never be forgotten that colonization, with its techniques and its political and juridical weapons, obviously transported European models to other continents, it also had a considerable boomerang effect on the mechanisms of power in the West, and on the apparatuses, institutions, and techniques of power. A whole series of colonial models were brought back to the West, and the result was that the West could practice something resembling colonization, or an internal colonization, on itself. (Foucault 2004, 103)

He also acknowledges that modern racism in the nineteenth century was “reworked for purposes of social conservatism and, at least in a certain number of cases, colonial domination” (Foucault 2004, 65; see also 60). It was used to “disqualify colonized

subraces” (Foucault 2004, 77). At one point, Foucault (2004, 257) explicitly claims that modern racism “first develops with colonization, or in other words, with colonizing genocide.” While none of these claims are elaborated further in the lectures, it seems clear to me that Foucault recognises the important role of colonialism for the development of biopolitical governance. Moreover, the 1976 lectures are not “very inadequate” as a history of racism not only because of Foucault’s recognition of colonialism. It is also because the lectures are one of many histories of racism which happen to focus on the role of race in the mechanisms of power in a particular geographical context (namely, Europe). This is inevitable. In fact, as this chapter will argue in the following section, a postcolonial study of race and racism in European colonialism is equally *a* history of racism and by no means captures complexities and multiplicities of modern racism when it was translated to another geographical context.

The second notion I would like to reconstruct is the role of discipline, the disciplinarisation of knowledges, or disciplinary power. Some commentaries suggest a period of divergence in Foucault’s work in the second half of the 1970s, departing from discipline to regulation or biopolitics. David Macey (2009, 188) notes: “Foucault [in the 1976 lectures] suddenly veers away from the ‘disciplinary’ notion of power elaborated in *Discipline and Punish*.” Similarly, Kim Su Rasmussen (2011, 36) argues that Foucault’s genealogy of racism in *Society Must be Defended* “belongs to this period of transition from discipline over biopolitics to governmentality.” Accordingly, these commentaries tend to discuss Foucault’s account of modern racism predominantly in biopolitical terms. In a sense, this is credible not least because Foucault himself appears to mark this transition in the lectures. Consider the

following passage, the passage which Macey (2009, 188) also refers to in his reading: “After the anatomo-politics of the human body established in the course of the eighteenth century, we have at the end of that century, the emergence of something that is no longer an anatomo-politics of the human body, but what I would call a ‘biopolitics’ of the human race” (Foucault 2004, 243). In the last lecture, Foucault repeatedly emphasises that these technologies of power emerged in different periods.

However, as Stuart Elden (2002, 146) appositely points out, Foucault never abandons disciplinary power in *Society Must be Defended*. There is, for Foucault, neither a separation nor a successive order, but disciplinary power and biopolitics can coexist and conjoin. Biopolitics, states Foucault (2004, 242), “does not exclude disciplinary technology, but it does dovetail into it, integrate it, modify it to some extent, and above all, use it by sort of infiltrating it, embedding itself in existing disciplinary techniques” (see also Foucault 2004, 250). They “were superimposed” (Foucault 2004, 249) but not replaced; they “do not exist at the same level” but “can be articulated with each other” (Foucault 2004, 250). “So we have two series,” says Foucault (2004, 250), “the body-organism-discipline-institutions series, and the population-biological processes-regulatory mechanisms-State. ... I am not trying to introduce a complete dichotomy between State and institution, because disciplines in fact always tend to escape the institutional or local framework in which they are trapped. What is more, they easily take on a Statist dimension.” Foucault takes sexuality as an example in which disciplinary power and biopower are superimposed. On the one hand, it operated on individual bodies, examining their behaviours and disciplining them; on the other hand, it operated at the population level, regulating and managing the life of the social body as a whole: sexuality is “a matter for



discipline, but also a matter for regularisation” (Foucault 2004, 251-2; see also 1998, 145-7).

Disciplinary power also operated in modern racism, although Foucault seems to give more weight to biopolitics in his 1976 lectures. It is important to note that Foucault’s notion of discipline has a twofold function. On the one hand, surveillance, panopticism, and the production of docile bodies play a crucial role in Foucault’s theorisation of disciplinary power (1979) and have contributed to the recent development of surveillance studies (Lyon 2007). On the other hand, Foucault’s notion of discipline is also about discipline in terms of the human sciences and the disciplinarisation of scientific knowledges. As Béatrice Han (2002, 116) notes, discipline here is related to Foucault’s concept of power-knowledge relations (Foucault 1979, 27-8; 2001, 59); it produces “truths” while eradicating “false” knowledges through “selection, normalisation, hierarchisation, and centralisation” (Foucault 2004, 181). It is, as Foucault puts it,

[an] epistemological power, the power to extract from the individuals a knowledge and to extract a knowledge from these individuals submitted to the gaze and already controlled by different powers. ... One can see ... a knowledge of observation being born, a knowledge of a clinical kind, like that of psychiatry, of psychology, of psycho-sociology, of criminology. (Foucault cited in Han 2002, 118-9)

This is why, suggests Han (2002, 119), “man” is according to Foucault “an invention of the human sciences.” In other words, disciplinary power is linked to a broader epistemological structure in which individuals are subjectified and objectified, and panoptic surveillance is only one manifestation of this.

It was then biology that constituted the disciplinary power of modern racism. Modern racism does not only justify “the death-function in the economy of biopower” (Foucault 2004, 258), but also is empowered by the disciplinarisation of scientific knowledges that allows the demarcation of populations and races and that equally contributes to its death-function. Mary Beth Mader (2011) notes an important link between Foucault’s account of modern racism in *Society Must be Defended* and his analysis of the birth of biology in *The Order of Things*. In the modern age of biology, suggests Foucault (2005), the notion of “life” was born and came to enter the European order of knowledge. He argues that this historical event profoundly changed the way in which beings are understood and related to each other. During the classical age of natural history, natural beings were classified by their visible representation and by nominalism (Foucault 2005, 141, 144). With the historical emergence of the “science of life” (bio-logy) around the beginning of the nineteenth century, beings became living forms and were understood in their particular relation to life (Foucault 2005, 292). The significance of this shift is that beings were now related to each other in biological continuity; with the notion of life, evolution and genealogy were made possible. Beings were no longer considered as permanent but transformative: “in the Classical period historical time itself ... constituted a permanent background of continuity for natural beings that themselves were *not* essentially genealogical forms – and were not forms that could transform into other forms or types of forms, unlike, obviously, in evolutionary theory” (Mader 2011, 103). The establishment of biological continuity – particularly, evolutionary biology – was, suggests Mader (2011), the condition for the emergence of modern racism in a biopolitical form. Once beings were connected to the continuity of life in general, biological threats to species

including the concept of degeneracy became thinkable. The function of killing under modern racism – including “political death, expulsion, rejection, and so on” (Foucault 2004, 256) – was essentially to maintain the life of the human race as a whole. The disciplinarisation of life was thus integral to the operation of modern racism.

There is another important connection between *Society Must be Defended* and *The Order of Things*. Stuart Elden (2002) points out a relation to the reformulated role of mathematics and calculation in the modern episteme Foucault articulates in *The Order of Things*: namely, the mathematicisation of *a posteriori* sciences, or empirical sciences, and the unification of knowledge on the basis of mathematics (Elden 2002, 137-8; see Foucault 2005, 276-8). This is evident, argues Elden (2002, 138), in thinking about race: he refers to the importance of the quantification, rather than nominal classification, of racial groups during nineteenth-century colonialism. Thus, suggests Elden (2002, 138), *Society Must be Defended* can be understood as “a politicizing of the argument of *The Order of Things*.” In fact, statistical measures were, for Foucault (2004, 246), a crucial mechanism of biopolitics.

The mathematicisation of life was not limited to statistical measures, however. As we shall see in the following section, it also prevailed within the discipline of biology during the nineteenth century. Foucault suggests this in *The Order of Things*: “[there were] a certain number of efforts that characterize modern reflection on the sciences ... [including] the endeavour to purify, formalize, and possibly mathematicize the domain of ... biology” (Foucault 2005: 267). He does not explore this mathematicisation of biology in greater detail in the book. Nor does he discuss it in relation to modern racism during the 1976 lectures. The next section aims at evincing

this point by turning to actual disciplinary practices of measuring and objectifying the body during colonialism since the late nineteenth century. I will particularly focus on practices and technology of biometrics – that is, “measurement of life” – that were deployed at various geographical contexts, and show how the body becomes a site of biopolitical configuration of populations and races.

### **The numerical order of race I: from Nazism to European colonialism**

Foucault briefly discusses disciplinary power in relation to modern racism with reference to Nazism:

Of course, no State could have more disciplinary power than the Nazi regime. Nor was there any other State in which the biological was so tightly, so insistently, regulated. Disciplinary power and biopower: all this permeated, underpinned, Nazi society (control over the biological, of procreation and of heredity; control over illness and accidents too). (Foucault 2004, 259)

The Nazi state, argues Foucault, was a racist and murderous state which fully enacted the old sovereign right to kill under biological concerns. While the Nazi regime is often analysed in terms of biopower and a power of death (*inter alia* Agamben 1998), there were various ways in which disciplinary power or “the anatomo-politics of the human body” (Foucault 2004, 243; 1998, 139) racially operated under the regime. The disciplinary power here includes surveillant and epistemological modes that were both racialised and racialising and that intertwined with the mechanisms of biopolitics. Take, for example, the inmate identification numbers that were tattooed on Jewish and Romani bodies in concentration camps. Here, the corporeal site of human flesh was used as a means of monitoring and, quite literally, of numbering, racial others, which also correlated to the management of “other” populations. On the

other hand, the body was also a site of production of racial knowledge and, in particular, of the superiority of the Aryan race over others. The manifestation of the Aryan Master Race was not just nominal propaganda but involved a series of scientific investigations of “other” bodies. The body was a site of racial examination and measurement among German anthropologists, which contributed to Nazi racial policies and genocide. Even the body after death was subject to examination and display as in skeleton collection (for example, Schafft 2004).

These disciplinary mechanisms of power in modern racism had their origins in colonialism. Indeed, they appear to be “a boomerang effect,” as Foucault puts it, of colonial models that were initially projected by the West but brought back to the West. For instance, Simone Browne (2015) argues that the surveillant use of human flesh dates back to transatlantic slavery when black bodies were branded. Also, it was British India where one of the most widely used modern methods of identification was introduced – namely, fingerprinting. The British colonial officials used fingerprinting in order to monitor natives and as civil and criminal identification (Cole 2001). Fingerprinting also had an epistemological power since the late nineteenth century. One of the influential pioneers of fingerprint classification, Francis Galton, who was also a cousin of Darwin and a developer of eugenics, proposed fingerprinting not just in terms of individual identification but also as a means to trace heredity. Galton hoped that all kinds of information – such as genealogy, race, criminality, and intelligence, which were all important for his eugenic programme – could be identified in fingerprint patterns (Cole 2001, 99).

Although Galton himself could not realise his hope by the 1890s, similar research programmes thrived in the coming decades across Europe and the United States. As Simon A. Cole records, there were a number of scientific studies in search of “degenerate fingerprints” during this period, including the study by Norwegian biologist Kristine Bonnevie who measured racial difference in fingerprint patterns between Europeans and Asians and concluded that the former were more evolved than the latter (Cole 2001, 111). Joseph Pugliese also analyses various scientific measurements of the body since the late nineteenth century and demonstrates the biometric construction of race, in particular, that of “the template white body” (Pugliese 2010, 30) in which the normalising power of whiteness is manifested while excluding and pathologising non-white bodies. Pugliese also suggests the twofold operation of disciplinary power and biopower in French police anthropometry: “police anthropometry ... focused on the exercise of disciplinary power on the body-organism of the individual in the institutional context of the police station *and* on the larger, biosocial problem of the state in identifying and regulating criminal populations of ‘recidivists’” (Pugliese 2010, 53).

### **The numerical order of race II: Japanese colonialism in East Asia**

The numerical racial ordering of the body was, however, more extensive and permeating and therefore must be explored beyond Eurocentrism and the realm of whiteness. In writing a history of racism, there seems to be a tendency to focus exclusively on the European, and more broadly Western, (colonial) context – a tendency which allows reducing the problematic of racism to whiteness. Reflecting Cornel West’s genealogy of modern racism which focuses on European powers and skin colour, Ian Hacking suggests “rethinking the connection between race and

geography” and its link to *each* empire since the “[c]lassification of peoples by a category of race is an integral part of the control necessary to organized and maintain an empire” (Hacking 2010, 110; 116). In fact, contrary to W.E.B. Du Bois’s famous dictum, “the problem of the twentieth century is the problem of the color-line” (Du Bois 2007, 15), skin colour is only one form of manifestation (and materialisation) of race. As Michael Weiner puts it, “emphasis on the ‘Colour Line,’ as conceptualized by Du Bois, runs the risk of reifying skin colour – of ignoring the fact that the visibility of somatic difference is itself a social construct” (Weiner 2009, xiv). This is evident in the cases of racism against Koreans, the Chinese, and other Asians in Japan, racism against the Irish in the United Kingdom, and, not to mention, racism against Jews in Europe. Racism in Japan in particular can be assimilated neither by the colour line nor by whiteness because it is, unlike the other cases, the Japanese themselves who engage with practices of racialisation against non-Japanese Asians.

The scientific logic of number and the mathematicisation of race prevailed over the dominant racist discourse of pigmentation. During Japanese colonialism in East Asia, anthropological and biological research on “other” bodies began to flourish after the colonisation of Taiwan in 1895 and was widely conducted throughout the early twentieth century. In the early years of Japanese occupation in Taiwan, Baron Gōtō Shimpei, Chief of the Civil Administration Bureau of Taiwan, proposed what he called “colonial governance by biological principles” (Takekoshi 1905: 36). In his book *A Theory of Japanese Colonialism (Nihon shokuminchi ron)*, Gōtō (1915, 22-5) explained that colonial governance by biological principles requires extensive research on the living conditions of the natives, natural phenomena and resources, and so forth, and implements colonial policies in according to these conditions. The

Japanese colonial strategy also entailed the foundation of an anthropological research institute which aimed at examining and knowing colonial bodies. During the last months of the First Sino-Japanese War, Tsuboi Shōgōrō (1895), the leading anthropologist of that time, urged to set up the study of race, and the Taiwan Anthropological Society was established in Taipei. Japanese anthropologists in the colony began to investigate “other” bodies, particularly aboriginal tribes or “raw barbarians” (*seiban*), the term that was generically used during the earlier years of the occupation.

The knowledge of colonial bodies was an integral part of colonial domination. As Japanese anthropologist Mori Ushinosuke (cited in Tierney 2012, 129) put it: “If we are to subjugate the aborigines, we must of course know them.” Since the early years of occupation, anthropologists such as Inō Kanori and Torii Ryūzō observed and measured a biological constitution of each tribe by using various anthropometric measurements. Their studies were published in the *Journal of the Anthropological Society of Tokyo* (*Tokyo jinrui gakkai zasshi*) – the predecessor of the *Journal of Anthropological Society of Nippon* (*Jinruigaku zasshi*) (for example, Inō 1898; Mori 1914; Torii 1898). A similar project on colonial bodies also took place in Korea after the 1910 annexation. Kubo Takeshi (1915, 122), a professor of anatomy at a newly reorganised, colonised (in 1915), medical institution Keijō Medical College (*Chōsen sōtokufu keijyo igaku senmon gakkō*), proposed what he called “anatomical anthropology of the Koreans.” Kubo (1915), who had also been researching in Korea for four years prior to the annexation, analysed an anatomo-biological constitution of the Korean body and compared it with that of the Japanese, using extensive measurements ranging from muscle and internal organs to the size of penis. For Kubo,



like Mori above, the knowledge of colonial bodies was an integral part of colonial governance. He proclaimed that it is vital for ethnic governance to study a biological constitution of each ethnic group and identify superiority and inferiority among different groups. This, continued Kubo, allows the Japanese colonial power to educate the Koreans and improve their inferior parts (Kubo 1919: 70).

The colonial will to knowledge under the Japanese Empire was closely linked to the notion of criminality and degeneracy within an evolutionary framework. One of the events that clearly manifested this was the so-called “Kubo incident.” In May 1921, when a skull went missing from a laboratory at Keijō Medical College, “Kubo accused the Korean students of the crime based on his experience in the physical anthropology of the Korean people. Anatomically speaking, Kubo elaborated, Koreans were barbarians whose racial traits determined their historical developments” (Kim 2013, 412). Similarly, Miyake Hideo, an anatomist at Nanman Igakudō in Manchuria, conducted an anatomical study of Korean bodies with particular reference to their palm prints and fingerprints. Comparing them with Polish samples, Miyake (1922, 761) concluded that Korean palm prints, which appear to be the same as Chinese samples, signify their degeneracy in comparison with Poles. Moreover, the discourse of degeneracy and barbarism was particularly prominent in studies of Taiwanese aborigines. Kanaseki Takeo (1929, 520), a professor at Taihoku Imperial University in the 1930s, collected biometric data of “raw barbarians” for the purpose of “statistical observation.” Classified into racial groups including Atayal (a Taiwanese aboriginal tribe), Japanese, Korean, Chinese, and Europeans, Kanaseki (1929, 544) asserted that the fingerprints of Atayal men reveals that they are unduly primitive compared to other neighbouring race.

Among various measurements of the body, fingerprinting became a widespread technology of racial knowledge during Japanese colonialism especially after the introduction of the “fingerprint index” by Furuhashi Tanemoto. Born in 1891, Furuhashi was a professor of forensic medicine at Kanazawa Medical University and later at Tokyo Imperial University and one of the leading figures in the development of forensic science in the country. In his 1926 lectures at the Kanazawa Association of Criminology and the Hokuriku Association of Medical Sciences, Furuhashi proposed the biological application of fingerprinting which he called “fingerprint index” (*shimon keisū*). Furuhashi’s fingerprint index was a scientific method of reading heredity and race through anatomical classification and statistical calculation of fingerprint patterns. It was based on earlier European studies of fingerprints including Galton’s classification of arches, loops, and whorls. Furuhashi (1926) introduced a mathematical formula which was calculated by dividing the proportion of whorls by the proportion of loops (both radial and ulnar) and then multiplied by 100: *fingerprint index = Whorls/Loops*×100. He calculated fingerprints of Europeans and Asians and propounded their racial hierarchical order: he asserted the lower fingerprint index among Europeans – generally below 70 – in contrast to the higher fingerprint index among Asians including Manchurians, Chinese, and Taiwanese “raw barbarians” – some of which were beyond 100 (Furuhashi 1926, 5). Furuhashi (1926, 6) also related his fingerprint index to craniometry, claiming that it tends to be lower among the brachycephalic people, while it tends to be higher among the dolichocephalic people. Based on his study, Furuhashi suggested a categorisation into four types: a score of over 90 was classified as the Manchurian type; between 90 and 70 as the Japanese

type; between 70 and 60 as the Italian type; between 60 and 50 as the Indian type; and below 50 as the Western type (Furuhata 1926: 7).

This simplified and generalisable mathematical formula of the fingerprint index was widely used in the following years by Furuhata's students and colleagues, as well as other advocates including biologists, anatomists, and anthropologists. It was followed by large-scale studies, using fingerprint samples varying from Europeans (including British, Italian, Norwegian, Polish, and German), Asians (Chinese, Korean, Indian, and so forth), to indigenous and colonised populations in East Asia (Ainu, Ryukyuan, and Taiwanese "raw barbarians"). The scope of fingerprint index calculation was predominantly concerned with the knowledge of race in East Asia in terms of both the "Japanese race" and its racial others. One of the earlier studies was conducted within the mainland of Japan as an attempt to articulate a regional difference and distribution of fingerprint patterns and to determine the bio-geographical origin of the Yamato people, which was believed to be the dominant native population in the history of Japan. In the second issue of the "Research on Japanese Fingerprint" (*Nihonjin shimon no kenkyū*) series, Hirai Sumimaro (1928) conducted a study to understand "racial peculiarities" and to investigate the origin of the Yamato people. Hirai analysed Japanese fingerprint samples across all 47 prefectures, and suggested the tendency that the fingerprint index is higher in prefectures on the coast of the Sea of Japan while it is lower on the side of the Pacific. The result was also compared with other biological measurements – what Hirai referred to as "race index" (*jinshu keisū*) that was based on the blood type, and the measurement of height and head. The study concluded that there is consistency among these three types of biological data, which can help to identify the bio-geographical origin of the Yamato people in relation to

the influence of other Asian races, suggesting a possible racial influence of non-Yamato populations from the continent in history (Hirai 1928; see also Furuhashi 1930, 285).

Tracing the hereditary origin of the Yamato people, the early biometric reading of the body was incorporated into the search of the “pure” Japanese race. The fingerprint index became a technology of purifying the Japanese race in the sense that the search for the origin through fingerprint patterns was constitutive of what was later understood as pure Japanese. It was not about the purification of race in terms of the elimination of the abnormal and degenerate as manifested in modern state racism in Europe (Foucault 2004), but nevertheless a technology of racial normalisation that operated on the surface of the body.

The internal construction of the Japanese race was coupled with the calculation of non-Japanese races. In the subsequent years, studies of fingerprint patterns became increasingly about the production of racial knowledge in East Asia whereby other Asian races were not simply biologically differentiated but also hierarchised. Fingerprint data collected from mainland Japan, its colonies and beyond were all put into the fingerprint index formula and racial and national groups across the world were systematically ordered. Table 1 is an extract of the “fingerprint classification table by race,” published in 1935 in the series of the *Research on Japanese Fingerprints* (Hibino 1935). It ranges from the high fingerprint index of some of Taiwanese “raw barbarians” – 170.18 of Atayal and 127.61 of Ami – to the lowest fingerprint index of Jews, 30.56. The number of the fingerprint index was understood as the level of civilisation and higher indexes were interpreted as the indicator of

barbarism and degeneracy. Another study of the Research on Japanese Fingerprints conducted a comparative analysis of five Taiwanese aboriginal tribes, namely, Paiwan, Tsuo, Yami, Ami, and Atayal, and calculated their fingerprint indexes as 51.31, 86.96, 107.93, 127.78, and 161.64, respectively (Itō 1935: 1441). The study concluded the biologically inherited barbarity of Atayal, while suggesting the relatively civilised bodies of Paiwan and Tsuo – the tribes that were seen as more obedient under the Japanese rule.

<i>Non-Japanese</i>	<i>Fingerprint index</i>	<i>Japanese</i>	<i>Fingerprint index</i>
Atayal (Taiwanese aborigine)	170.18	Shiga	107.52
Ami (Taiwanese aborigine)	127.61	Ishikawa	102.71
Yami (Taiwanese aborigine)	108.50	Gifu	99.83
Cantonese	108.25	Toyama	98.58
Korean	94.37	Ishikawa	93.30
Ryukyuan	89.01	Kumamoto	92.28
Tsuo (Taiwanese aborigine)	86.96	Ehime	89.49
Italian	62.38	Shizuoka	85.33
American	51.19	Nigata	81.34
Paiwan (Taiwanese aborigine)	48.29	Fukui	80.15
German	46.15	Kyoto	78.76
Ainu	42.37	Toyama	74.26
British	36.51	Tokyo	72.94
Jews	30.56		

Table 1: “Fingerprint classification table by race”

The fingerprint index studies and colonial anthropological research more broadly during the period of Japanese imperial rule exhibits a disciplinary role in the biopolitical configuration of populations and races, which was geographically coded. Like earlier studies in Europe since the late nineteenth century, examination of the body during Japanese colonialism became a technology of racialisation, demarcating between “normal” or “civilised” fingerprints and “abnormal” or “barbarous” fingerprints. Yet, importantly, this was not so much in accordance with the European

taxonomy of race or racial pigmentation, but in relation to Japan's own colonial governance in East Asia. It was to establish its own distinct raciality and its relative superiority to other Asians or other "yellows." While the Eurocentric and white supremacist mode of scientific racialisation never totally ceased during Japanese colonialism, the concept of race and practices of racialisation were irreducible to it; instead, they were locally appropriated. The nineteenth-century European idea of degenerate fingerprints was multiplied: instead of challenging the "degenerate fingerprints" of Asians proposed by European scientists, other degenerate fingerprints were constructed across East Asia.

That is to say, the power-knowledge of biometrics emerges as spatially specific, intertwining the knowledge of the body with imperial power in each geographical and historical context. Equally, the disciplinary power of modern racism operated in a geographically and historically specific manner. While the logic of biopolitical racism may be – and in fact has been – globally generalised, it is such localised disciplinary power that empowered each colonial and racist form of biopolitics.

## **Conclusion**

The mathematicisation of biology appears to have contributed to the production of racial knowledge since the late nineteenth century, not only in the West and its colonial context, but also in a non-Western mode of colonialism. This is not to say that the mathematicisation of biology conditioned the invention of the modern concept of race but it nevertheless fortified modern racism in a scientific form across imperialisms. Drawing on the cases of colonial deployment of the measurement of life, the chapter has explored some of the ways in which the body was utilised as a

domain of exercising disciplinary, (racially) normalising, and (colonial) power-knowledge practices. Producing racial knowledge, the surface of the body became a site of biopolitical configuration whereby bodies were ordered by a series of evolutionary notions of degeneracy, barbarism, and civilisation. At the same time, I have attempted to reconstruct and integrate Foucault's accounts of biology, discipline, biopower, and modern racism in the context of colonialism. Although the link between his concepts is not always explicit and some of his points are left underexamined, a holistic reading of Foucault is not only plausible but also helps to understand the mechanisms of biopolitical racism beyond the problematic of whiteness.

An analysis of the disciplinary power of modern racism also cautions against a universalist approach to studies of biopolitics. The logic of biopolitical thinking may be translated across different contexts. Biopolitics and its death function are, however, neither a-historical nor a-spatial. As the chapter has shown, both the modern disciplinarianisation of scientific knowledges and a localised mode of the production of knowledge are integral to the operations of biopolitical racism. In fact, an analysis of disciplinary power of modern racism, examining the production of local knowledges, allows us to understand historical and geographical transformations of the way in which biopolitical racism is empowered. Disciplinary power does not only continue to perform in biopolitics but also plays a part in the reinvigoration of the right to kill under the biopolitical theme through the production of the scientific "truth" about races. If there is a continuity between sovereign power and biopower in terms of drawing a line between "what must live and what must die" as Agamben (1998) suggests, so is there the continuity of disciplinary power. Yet, disciplinary power

continues in biopolitics as much as reorganises the biopolitical order of populations and races according to each imperial contexts.



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