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Things They Said: A Narrative

Societal Rhetoric of Vision-Impairment in Modern Japanese History

Recorded in *Yamainosoushi* (病草紙) in the 12th century was a scene of eye surgery, now identified as for treating cataract. As the spectators watched, the traveling doctor thrusted a needle into the crystalline lens of the patient's right eye. Blood came streaking out pouring into a bowl, and the doctor left telling the man he would feel better soon, while the man eventually realized that his eye had simply been crushed by the needle (Sakai 102).

The illustration from Yamainosoushi*, accompanied by text on the back side. Source:* Wikimedia Commons.

This brief account is a rare glimpse into the experience of people suffering from eye ailment and receiving treatment in Japanese history. As was the case across premodern societies, eye conditions were mysterious and ill-understood; leaving them untreated would often mean that impaired vision was only an interim stage before inevitable blindness, but treatment was likewise dangerous for the patient (Sakai 100). Yet while western scientific and medical knowledge

blossomed steadily in the centuries following the Renaissance—widely regarded as Europe's transition from the Middle Ages to modernity, Japan did not exit its self-imposed isolation from the world and feudal rule until the middle of the 19th century. The Meiji Restoration's drastic westernization and industrialization efforts thrusted Japan into modernity in a matter of decades, during which time many eye diseases become treatable, and less severe vision impairments such as myopia received medical and societal attention for the first time. The synchronicity of the developments raises the question: how did the perception and rhetoric of vision-impairment shape Japan's contemporary sense of nationalism and technological progress from the 1850s until 1945?

To answer this question, I will first go back in time to present an overview of pathological and historical accounts on eye conditions in ancient and pre-modern Japan, where the occassional feudal lord suffering his ailment revealed the stagnant understanding of anatomy and available options. I will show that this juxtaposes with Japan's new era of the Meiji Restoration and industrialization, when patients both found effective relief in the introduction of western medicine but also realized that their personal conditions suddenly attracted government attention as public health problems. I will specifically examine trachoma, a bacterial infection that is still today the leading preventable cause of blindness worldwide (CDC "Trachoma"), and reveal the emergence of rhetoric–in response to western racists attitudes while ethnocentric itself–that decried the rampancy of trachoma "a national disgrace". I will argue that the next layer of such rhetoric developed as Japan began its imperialist conquest in East Asia and in the Pacific, when poor eyesight further became additionally characterized as threats to national security and failure to fulfill one's duty to the emperor. I will specifically examine myopia, a condition hitherto deemed relatively benign that occupied the top minds of the military state, for it prevented conscripts from aiming their rifle or flying a dive bomber and displayed physical inferiority in front of their Axis allies. To conclude, I will argue that even though such rhetoric ceased unceremoniously after Japan's surrender in WW2, its legacy carves out a vacuum in

contemporary discourse surrounding vision impairment as discussions strive to remain medical, even when the same anxieties lurk beneath the surface.

Interlude: Forewords

Today according to the CDC, vision impairment (VI) is generally determined by the best-corrected visual acuity (BCVA) of an individual's better-seeing eye, and "mild" vision impairment begins when their BCVA is worse than some value between 20/40 and 20/63 per different medical definitions (CDC, "Vision Impairment and Blindness"). In this essay's historical context, however, I will discuss vision impairment more broadly as having conditions that cause less than optimal vision with one's naked eyes, and show how this definition was embodied by contemporary societal discourse.

As my free-form words associated into shapes, I realized that instead of a research-based argument, I am writing more of a research-based narrative, inspired by one of 2022's Three Books, *Why Fish Don't Exist: A Story of Loss, Love, and the Hidden Order of Life*, by Lulu Miller. I will tell a story of three eye conditions, of war and peace, of progress and prejudice, spanning thirty-eight generations of Japan's oldest family of ophthalmology practitioners and three professors of ophthalmology at Tokyo University.

I am also inspired to write this way as a direct response to the sources I worked with. On this somewhat obscure topic, much of existing literature is written by Japanese historians born in the first half of the 20th century who subscribe to a keen sense of Rankean historiography (recent research on intellectual history identifies this as a general theme [Facius]). They sought to only show what actually happened (*wie es eigentlich gewesen*) and refrained from offering their own analysis and "judging the past (…) for the benefit of the future ages", to quote the words of the influential German historian. This essay, then, exists along the lines of the classic criticism of such supposed impartiality: writers of history do form and communicate their arguments and judgments by choosing what aspect of history they focus on and what facts they include, and it may be hypocritical to claim that we do not.

At the time of writing, my mother was just diagnosed with a macular hole after losing her field of vision in her left eye and is awaiting vitrectomy this December. She had the LASIK surgery two decades ago and unfortunately has not had an eye exam in a long time. As I have a progressing case of myopia and astigmatism and so did my parents, this topic now feels particularly personal.

I was not born in Japan, but rather in one of its neighbors that fell victim to imperial Japan's ambitions. As Japan was the first nation in East Asia to rapidly industrialize, tracing its history of economic development, rising nationalism, and eventually expansionist war, I hope this case study may yield insights into other societies' experiences of adopting "modernity".

All Japanese names will be referred to with their family name preceding their personal name. All translations are rendered as literally as possible to the best of my ability

Cataract: limited treatment and lack of narratives

Recall the doctor in the unfortunate scene from *Yamainosoushi*. Although he may have been a sham (quack), his technique resembles couching, the earliest documented form of cataract surgery that removes the cloudy crystalline lens (Tanihara, "Majima"). Originated from Ancient India, it is described in the Mahayana Mahaparinirvana Sutra around the 2nd century as an analogy of finally perceiving the Budda-Nature (Yamamoto and Page):

Bodhisattva Kasyapa said to the Buddha: "O World-Honoured One! To what extent is the Buddha-Nature profound and how difficult is it to perceive and get into?" "O good man! [As an analogy]: 100 blind persons consult a good doctor for a cure. With that, the doctor opens up the membrane of the eye with a golden barb [blade] and then, holding up one finger, asks: "Can you see this?" The blind person says: "I cannot see it yet. " Then, the doctor holds up two fingers, and three fingers. Then, the person says that he can see to some extent. O good man! When this wonderful Sutra of Great Nirvana is one that has as yet not been delivered by the Tathagta, the same is the case. (…)

Contemporary Japanese ophthalmologists widely practiced couching and other surgical techniques transmitted from India via China via the spread of Buddhism. The earliest and the

best Japanese school of ophthalmology, the Majima-ryū, supposedly traces its roots back to a Buddhist temple in Owari Province in the 9th century. Although lost to warfare, the temple was rebuilt by a monk named Majima Seigan (馬島清眼) in 1357, who then opened an eye clinic on the premises (Ibid.). One night in his dream, Majima claimed, he met Bhaiṣajyaguru, the Buddha of healing and medicine; the Budda proceeded to teach his the medicine that would cure the eye diseases of the masses (in another version he met a foreigner who gave him an ophthalmology text). When he woke up, Majima hurried to the inner temple and wrote down everything he remembered. As he tried out the divinely-inspired prescriptions in the morning, he cured all kinds of eye conditions like working miracles, and his fame earned him patients from all over Japan (Ibid. Sakai 104). In reality, Majima's knowledge certainly came from a more literal version of the event in his dream; yet he worked an air of mysticism and only passed down his skill in his male line, though competitors who either broke off from the school or acquired the knowledge independently arose (Tanihara, "Majima"). Though claiming curing all kinds of eye conditions, the Majima school's surgical technique only specialized in removing cataract and generally "opacity inside the eye" (*sokohi*, 内障) with needles (Ibid.). Their claim to imperial favor was in 1632, when the 13th heir of Majima Seigan, Enkei (圓慶), successfully treated Emperor Go-mizuno'o's daughter, earning his temple the official title Myougenin, "The Temple of the Clear Eye"; as late as 1766, the 21th heir Enkai (圓海) treated the second son of Emperor Momozono (Sakai 105; Ogawa).

These high-profile successes notwithstanding, couching as practiced by the Majima school was always a dangerous operation with abysmal results, to become increasingly outdated by the middle of the 18th century when Intracapsular and Extracapsular Cataract Extraction (ICEE and ECEE respectively) were first demonstrated in Europe (Davis). In a 1996 survey conducted in Mali surveying patients who received cataract surgery from local practitioners, none of the patients who received couching had vision better than 20/120, 29.1% had low vision above 20/400, WHO's definition of legal blindness (compared to 76.8% of those that received ICEE), and 70.9% were blind after the procedure (CDC "Vision Impairment and Blindness";

Schémann et al.). Thus even though the Majima school represented the top body of Japanese practitioners, they could hardly promise arresting the course of progressive vision loss in their rich and powerful patients. The diary of Hosokawa Tadaoki (細川忠興), famous samurai warrior and feudal lord (*daimyo*) of Kokura who lived from 1563 to 1646, offers an unique personal glimpse into such a tragedy. After first signs of difficulty seeing with his left eye in the spring of 1602, his vision deteriorated drastically in February 1618 when he reached 54. His age meant cataract was the most likely condition, though acute symptoms including nausea, vomiting, and headaches may suggest glaucoma or chorioretinal conditions that contemporary doctors understood much less about (Tanihara, "Hosokawa"). Hosokawa wrote that he "called for an eye doctor named Majima" (眞嶋と申目醫師呼下) from Osaka; after receiving treatment he "could recognize people 2 to 3 *ken* [approximately 3.6 to 5.5m; 12 to 18 ft] away" (今ハ二間三間先ノ人をハ見知申程ニ成候事) with his left eye but his right eye "could not see anything" (少も見え不申候; Tanihara, "Sengoku"). Dissatisfied with the outcome in March he requested for "a good eye doctor from Kyoto" (京都ニ而上手之目医師一人御下候へと申遣候) from the shogun's personal representative there, Itakura Katsushige (板倉勝重), to likewise no improvement. This prompted him to truly work his connections, asking for a personal favor from the shogun's right-handed man, Doi Toshikatsu (土井利勝). In his diary he wrote "through the kind offices of Doi's conversation with the shogun (Tokugawa Hidetada 徳川家光), an eye doctor is also coming from Bishū [Owari]" (土井大炊頭殿御肝煎にて，尾州よりも眼医参り). This doctor—also a Majima who likely served the shogun's and the imperial family—treated his eyes, but apparently to such failure that "in the end the eye that could still see" (結句能方之目) became "hazy as well" (かすミ出候事; Miyamoto). He then sent back doctor Majima from Bishū and called for the first doctor Majima from Osaka again, and the flurry

continued[1]. But eye problems only worsened for Hosokawa, and he languished into an ill-tempered old man until his death decades later (Tanihara, "Sengoku").

Hosokawa's particular plight is known today because of the many stone monuments[2] praying for his speedy recovery dedicated by his retainers, and because of his family who continued to live on his huge fief and meticulously preserved his writing for centuries (Ibid.). But besides another rich trove of records surrounding how Emperor Sanjō's vision loss eventually forced his abdication and the emergence of the powerful regent Fujiwara no Michinaga (藤原道長), the stories nearly all patients—not rich or powerful, lack access to eye care or suffered from conditions outside the doctors' narrow expertise—are left untold and lost to history (Sakai 67). They would only be later known as the blind after their conditions have run their course, who we know earned their livings by performing music, acupuncture, or massage, or were supported by their families in the absence of government welfare until the Meiji period (Ri 27, 29; Sugimoto 13, 14).

Interlude: the road to modernity

The end of Hosokawa's life coincided with the beginning of the Edo shogunate's self-imposed isolation from the world in 1639. The founder of the shogunate, Tokugawa Ieyasu, lived to a ripe old age of 75 and frequently wore a pair of European presbyopia glasses in his final years—an artifact of the myriad foreign contact during Japan's previous Sengoku period (Tanihara, "Sengoku"). His grandson, Hidetada (whom Doi talked to so that Hosokawa got his doctor from Bishū), decided that foreign influence is better gone from the now unified Japan, with the exception of the Dutch East India Company that could stay on the manmade island of Dejima in Nagasaki harbor. Nevertheless, the exchange of knowledge continued through the

[1] ironically, later he recorded the name of doctor Majima from Osaka as Keien (慶圓), most likely a respectful form of referring to the real name Enkei (圓慶), indeed the 13th heir who would successfully treat Emperor's daughter in 1632. It ironic that inviting the most senior Majima doctor seemed to have been the most straigtforward for Hosokawa, though the possibility that Keien was actually another person cannot be discounted (Tanihara, "Sengoku").

[2] more exactly stone lanterns (石灯籠) donated to shrines for this purpose

enclave, including the translation of anatomical and ophthalmological texts. Soon Japan could produce eyeglasses domestically, and *ukiyo-e* depicting bespectacled people started appearing (Howanisyan, “Kindai”). In the shogunate’s final years in the 19th century, it grew increasingly paranoid to start cracking down on the translation (1840), study (1848), and eventually administration of western medicine (1849) in Japan (Nichigai Associates 20; 22; 23). Even so, the 1849 ban permitted surgery and ophthalmology as exceptions–no doubt recognizing the superior results of western methods that had far lapsed previous techniques transmitted to Japan centuries ago, and the 28th heir of the Majima school, Ennyo (圓如, 1802-1855), visited Nagasaki during his life to learn Dutch practices that he would use to reform his tradition, perhaps too little too late (Tanihara, “Majima”; “Majima Ennyo”). By the time the Shogunate lifted the ban in 1858 after Commodore Matthew Perry's "Black Ships" sailed into Edo Bay leading to the opening of Japan, the winds of change have long been brewing, paving the basis for Japan’s comprehensive westernization that the imperial Meiji government would begin after toppling the Shogunate 10 years later.

As the Meiji government banned traditional medicine and monk doctors in 1868, the Majima clinic was shut down and the 33th heir Noriyasu (則安) acquired a western-style medical license (Tanihara, “Majima”). The 37th heir Yoshinao (慶直) passed away in 2015, having served as a pioneering cataract surgeon and rector at Fujita Health University, where the 38th and current heir Kiyoyuki (清如) was previously an ophthalmology professor (SANKEI DIGITAL INC).

Hosokawa Morihiro, prime minister of Japan from 1993 to 1994, is the current head of the Hosokawa clan.

Today, a Majima Eye Clinic stands at Ichinoso-115 Okutecho, Owariasahi, Aichi 488-0004, Japan. It is a modern two-story building run by Majima Kousaku (紘策), née Naitou Kousaku who was adopted into the Majima family as a daughter’s husband (Majima Eye Clinic, “About Us”). It has 3.2 stars on Google Maps, with the main complaints being the receptionist is unfriendly.

Trachoma: an old disease became a "national disgrace"

In the 1890s, Dr. Kōmoto Jūjirō (河本重次郎), the first ever professor of ophthalmology at Tokyo University, investigated the once secret texts of the Majima school to compose a history of Japanese ophthalmology[3]. He was dismayed to find that the generations of Majima doctors hardly innovated on the Chinese and Indian techniques they acquired—if anything they only simplified them, introduced more mystical elements, and held back research through excessive secrecy (Tanihara, "Majima"). "From what we can see, Japan hardly developed any indigenous ophthalmology", he wrote bitterly, "the history of Japanese ophthalmology is the amalgamation of Chinese ophthalmology and European practices since the introduction of Dutch studies" (予カ見タル所ニテハ，日本固有ノ眼科トテハナキガ如シ，日本ノ眼科史ハ支那ノ眼科史と蘭学以来欧州的眼科進入シテ混合セル者ナリ; Ibid.). Perhaps his precursors did not deserve such criticism for not having stumbled upon the scientific method; yet it weighed upon Kōmoto, having just returned from a 4-year visit to European universities, that Japanese ophthalmology had fallen so far behind compared to the west's.

Portrait of Kōmoto from his 1943 biography. Source: https://www.meirinkanshoten.com/products/detail/586512

[3] published in 1900 as「日本眼科ノ由来及 於ケル蘭學ノ本源ニツキ」

Indeed, when Dutch naval surgeon Johannes Lydius Catherinus Pompe van Meerdervoort arrived in Nagasaki in 1857 to serve at a modern naval training center devised by the waning shogunate, he was shocked by the rampant eye diseases among the city's residents, about 8% of whom were afflicted with at least one condition. "Hardly any country in the world has more blind people than Japan", he wrote, attributing the cause to local doctors he met and scorned, who "hardly know anything about treating eye diseases. Thus many conditions that could have been easily cured in the first place resulted in blindness" (Sakai 100). One of these diseases was trachoma, a contagious infection caused by *Chlamydia trachomatis* bacteria. Spreading through direct personal contact and contaminated surfaces, trachoma results in damage to the outer cornea and is to this day the leading preventable cause of blindness worldwide (CDC "Trachoma"). Long known as "busted eyes" (*borome* ぼろ目) in Japan, the local strain fortunately did not seem very contagious to Pompe even though he noted that it was common (Sakai 108).

As Pompe was busy performing operating theaters and the first ever autopsy in Japan in 1859, Kōmoto Jūjirō was born in Toyooka to the east. His father being a retainer of the local Kyōgoku clan, Kōmoto had the benefit of starting traditional school at seven together with the children of the lord's family (Tanihara, "Kōmoto"). In 1872, as the Meiji government abolished the feudal system, Kōmoto's father sent him to Tokyo to attend schools that taught the German curriculum (Ibid.). In 1883 he graduated top of his class from Tokyo University, only founded 6 years prior, and went on to visit Europe for four long years from 1885 to 1889, studying in a myriad of universities under world-leading ophthalmologists such as Julius Hirschberg, Wilhelm Uhthoff, and Edmund Landolt (Ibid.). Upon returning to Japan Kōmoto was appointed the first professor of ophthalmology at Tokyo University, receiving his doctorate soon in 1891 (Ibid.).

In years as Kōmoto studied to become the unquestionable pioneer of his modern discipline in his nation, trachoma—seemingly only previously held back by population's lack of mobility in the feudal system—spread rapidly through children in Meiji Japan, who had begun commuting to and studying at the newly instituted compulsory elementary schools. By Meiji 24

(1891), the first year trachoma was known by its current name in Japanese medical literature, more than 10% of the elementary school students in Matsuyama city were diagnosed in a city-wide check. Following a major outbreak in 1897, the rate in Yamagata city was three out of every four children (Sakai 109).

Serving as the founding president of the Japanese Ophthalmological Society founded in the same year, Kōmoto approached the pressing issue of the trachoma epidemic with new, scientific knowledge. As the bacterial infection was difficult to cure prior to the widespread availability of antibiotics (newspapers from 1933 record that at least two women committed suicide in Tokyo because trachoma treatment—in one case the child's—had cost all of their family's savings [Howanisyan, "Ronsetsu"]), he decided to rally focus on the disease's prevention. In 1893 he already introduced to the Japanese medical community that trachoma is chronic and contagious (Hougetsu). Even before his retirement from Tokyo University in 1922, he started serving as the chairman of the Japanese Society for Trachoma Prevention and advocating that trachoma was a public health problem, a platform he would keep until his death in 1938 (Japan National Society for the Prevent [sic] of Blindness). Not only did so many people become blind in Japan because of trachoma, Kōmoto argued that the blind people carrying trachoma in their red or "dirty" eyes actively spread the infection and should be treated by government efforts (Hougetsu):

> The blind do not only live with no vision; they carry a myriad of eye diseases. […] Most blind people have trachoma, and in most occasions they are left to their own volitions; but the blind keep their eyes dirty, and for this reason if they have trachoma, they could easily spread the disease and cause excessive danger to others. I deem that future prevention measures must pay considerable attention to the blind. If the eyes of a blind person becomes red, it must be checked whether they have trachoma, and if so they must be completely cured. Though the blind could live with either dirty or clean eyes because they do not see, and it would

> have been fine if the disease only affects the blind, we must pay utmost attention so that it does not gradually infect others.
>
> 盲人は只失明して居ると云ふ丈けでなく色々の眼病を患へ持つて居るのであります。（略）太抵盲人はトラホームを持つて居るのでありますが、多くは放任してあるのであります、然るに盲人は眼を汚くして居る、それでトラホームでもあれば他に伝染し易ひ其の患者が居る為めに他の者には甚だ危険である、今後の予防の方面から致しましも余程熱心に盲人に注意しなければならぬと思ひます、若し盲人の眼が赤かつたりした時はトラホームの有無を調べさうして其存在を見留めたら矢張り根治的治療をしてやらなければならぬ、それを皆盲人を其失明して居る所からして眼が汚なく帰れて居ても構はぬが、その盲人一人だけにそれが止まるものなれば構はぬとしても宜しからうが、それが他に段々伝染して影響を及ぼすと云ふに至ては大に注意を払はねばならぬと思ひます

While Kōmoto saw trachoma as a public health issue Japanese society needs to address for its own benefit, to his student Dr. Ishihara Shinobu (石原忍), today known for his invention of the colorblindness test used around the world, trachoma is moreover a disgrace to the developing nation on the world stage[4]. Succeeding Kōmoto's role as Tokyo University's professor of ophthalmology in 1922, in the same year he published *An Illustrated Explanation of Trachoma* (トラホーム 図説). Interpreting the statistics of trachoma infection worldwide, Ishihara narrated that "trachoma has spread throughout almost the entire world; from chart 2 and 3, we see that it is particularly prevalent in Egypt, Arabia, and China, while almost nonexistent in the civilized nations of Europe and America" (トラホームは世界の殆んど全般に広がり殊に多きは付図第二及第三に於て見るが如く埃及アラビヤ支那地方にして欧米の文明国には極めて少なし). Thus he presented to his readers that "trachoma is a sign of being uncivilized" (トラホームは未開の標識なり), and urged that they too strive for its nationwide eradication

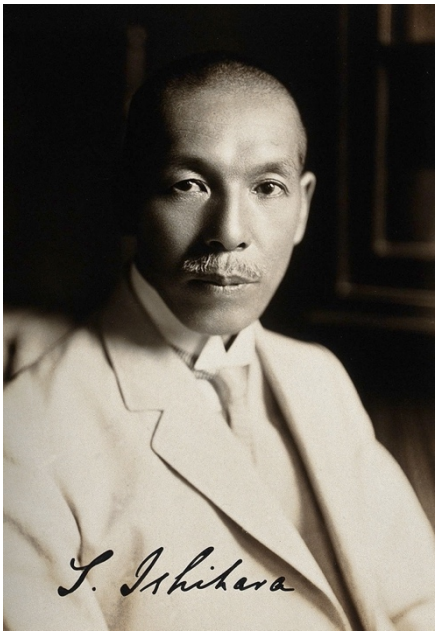
[4] Though he was hardly the first to employ such rhetoric.

(Howanisyan, “Ronsetsu”). His readership, the Japanese medical elite, agreed with his verdict, but many found it necessary to justify why trachoma was on the rise while the nation grew evidently more “civilized” after the Meiji Restoration. Dr. Inoue Toyotarou（井上豊太郎）, after noticing that many Japanese soldiers returning from the First Sino-Japanese War contracted the disease in China, advocated that “It is considered that the Japanese-Qing Battle of Meiji 27 [1894] is the cause of this disease spreading through everywhere it reaches in the whole nation. Because China is so unsanitary various contagious diseases exist there” (此病気が此の如く全国至る所に伝染したる動機は彼の明治二十七八年の日清戦役が其動機をなして居ると思はれる、元来支那は衛生の不行き届の為か種々の伝染病がある; Ibid.). Others[5] argued that the “barbarian” disease of trachoma was concentrated in the more “barbarian” parts of Japan, namely in the northeast inhabited by the Ainu ethnic minority, or among “the most inferior and base elements of society” （下等賤劣の社会) that had no idea of cleanliness (Ibid.; Hougetsu). Yet these mounting prejudiced excuses only highlighted Japan’s continued inability to control trachoma. Although the Meiji government passed the Trachoma Prevention Law (トラホーム予防法) in 1919 and several more edicts afterwards that outlined many sanitary measures in public places and in schools, they fell short of curbing the disease’s contagiousness that ultimately would require comprehensively improving the living standards of ordinary imperial subjects. Per an government report titled “Statistics Regarding the Blind” (失明者ニ関スル統計) published in 1932, trachoma was still the third leading cause of blindness across all age groups behind “other” and “gonorrhea”, followed by malnutrition in the society marred by inequality and economic crisis since the 1920s (partially reproduced from Shakai Fukushi Chōsa Kenkyūkai 448):

[5] This is not to say Ishihara did not sponsor any of the following claims at various times.

Congenital	Syphilis	Gonorrhea	Tuberculosis	Leprosy	Malnutrition	Injury/Trauma	Systematic disease	Trachoma	Others	Total
2260	7840	11227	190	310	3692	4637	8202	8603	29299	76260

Still in Ishihara's mind, the disease was only a sore holdout from the wonder of modern medicine, having progressed from medieval to world-leading standards in his lifetime. He viewed Japan's rapid medical progress and continual existence of trachoma as a mismatch between modernity and backwardness in his nation and devoted himself to trachoma research to resolve such. After more than six long years, he narrated that, he was nearing a breakthrough of identifying the exact pathogen, and animal trials were no longer sufficient (Howanisyan, "Ronsetsu"). Then starting in 1933, Small Committee No. 7 of the Japan Society for the Promotion of Science [sic], soon headed by Ishihara, began large-scale ethically questionable human experiments to determine the exact trachoma pathogen in Japan, including inoculating the eyes of infants and the reproductive organs of women (Ibid.). Almost all his assistants working on this project received their doctorate degree for their involvement, and some results from these experiments were eventually published internationally in 1949 as "Etiology of Trachoma" in *American Journal of Ophthalmology*, where the author claimed that "under the guidance of Prof. Shinobu Ishihara and Prof. Takeo Tamiya at Tokyo University […] a total of 105 human inoculation experiments were performed, in cases hopelessly blind from other causes". However, the Japanese records never confirmed whether all the human subjects were blind in the first place.



Portrait of Ishihara Shinobu. Source: Wikimedia Commons.

Ishihara defended his research by claiming that in his "special situation", his department had "no other option but to conduct research by the means of human experiments", whose results would not only benefit his nation directly, but also exist as an original contribution by Japan "last in eternity"—something the Japanese medical community of the old never accomplished (Ibid.). Unfortunately, by all accounts his treasured research did not seem to have helped those suffering from trachoma. His stated goal, the identification and isolation of the underlying pathogen, was not accomplished until 1957 in China by T'ang et al., who used chicken embryos instead of human subjects (Solomon et al.), and trachoma would not be controlled in Japan until well after WW2 thanks to comprehensive improvements to living standards and medical access (Sakai 110). Thus as the newly-educated medical professionals transformed their field in Japan, shrouded in hubris they also spewed prejudice and caused suffering to reach for lofty goals, the shame and glory to their nation and their discipline weighing more heavily on their minds as they saved patients to them wretched and disposable.

Myopia: "one cannot protect the country with bad eyes"

To Dr. Shōji Yoshiharu (庄司義治), succeeding Ishihara as the third professor of ophthalmology at Tokyo University in 1940 in the middle of WW2, Japan's high rate of myopia

was the primary eye problem he deplored in *Japan Medical Journal*'s 1944 special issue "Warfare and the Eye" (Howanisyan, "Sensou"):

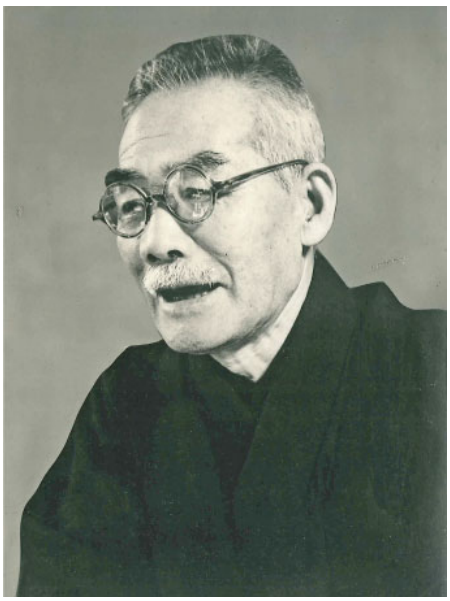
> [the relationship between] warfare and eyesight has become a great problem with regards to the Great East Asia War. In particular visual acuity must be improved for both the Navy and the Air Service [of both the Navy and the Army]. Yet myopia is prevalent among the youth in our country. It is truly dismaying that half of the students conscripted seem to be wearing glasses
> 大東亜戦の重大闘頭に立って戦争と眼は大きな問題となって来た。ことに海軍乃至空軍に於ては視力はいやが上にも向上させなければならない。然るに我が国の青年には近視が多い。出陣学徒の半ばが眼鏡をかけて居るやうでは甚だ心ともない次第である.

Portrait of Shōji Yoshiharu. Source: https://www.eye.med.kyushu-u.ac.jp/class/history

His perspective contextualized by the war Japan was losing, it may not be surprising that at the beginning of the 20th century, myopia glasses were only rare signs of academic diligence in Japanese society. The first Japanese language encyclopedia published in 1908 described myopia as "common in those who strive for scholarly knowledge or those that do work of this kind"—contrasting with its absence in the general population unburdened by the noble condition

(360; Iaponica). Indeed, in an article titled “On the visual acuity of the Japanese people” (日本人ノ視力ニ就テ), published in *Chiba Medical Journal* in 1902, the author cheerfully reported that Japanese people could see much better compared to Europeans in medical literature (本邦人ノ視力は欧洲人ニ比シ一層善良ナルガ如シ; Hadano). His result came from the physical evaluation of 7680 conscripts in the Mito Army Regiment District (水戸連隊区). Not accounting for the 509 with “eye abnormalities” or “almost blind”, the author reported that only 60 men out of the remaining 7071 did not achieve 20/20 vision. Among them were “16 cases of myopia, 4 of hyperopia, 1 of myopic astigmatism, 33 of trachoma and other conjunctiva diseases, 1 of pannus, and 5 of amblyopia”. With only 0.23% of the 7071 the author ruled out had myopia that caused less than optimal vision, the author ventured to suggest that 20/20 vision was not good enough for a Japanese male: “For this reason, [we] deem that any able-bodied male of this nation with visual acuity less than 20/15 may be considered pathologically impaired in their vision; and since conscript physical evaluations are constrained for time, [we deem that only] vision above 20/15 or the maximal vision should be checked thoroughly (故ヲ以テ余ハ本邦壯丁ノ視力 20/15 以下ニ減弱スル者ハ已ニ病的若クハ非正視眼と看做シテ可ナル者ト認メタルモ徴兵検査ハ元ト時間制限アルヲ以テ充分精細ニ 20/15 以上ノ視力即チ最大視力ヲ調査スルヿ).” Thus as Dr. Takanō (高野六郎) graduated from Tokyo University in 1909 to work as a infectious disease researcher for the Home Ministry, later becoming the chief of the Ministry of Health’s Disease Prevention Bureau, his mind was focused on trachoma that per the report was at least twice as prevalent (Horiguchi). “Trachoma, as the likes of abdominal spasm, is a disease of the uncivilized barbarian nations. The Japanese people, 10% of whom have trachoma, are neither civilized nor clean citizens”, he wrote (トラホームは癪などの如く未開野蛮国の病気である。一〇%のトラホームを有つ日本人は文明国民でも清潔国民でもない; Howanisyan, “Ronsetsu”). A bespectacled man like his professor Kōmoto and many among Japan’s new modern intelligentsia, Takano saw myopia among his colleagues (over 50% in the Imperial Universities by the 1910s [Howanisyan, “Kindai”]) as a necessary evil of progress; affecting only academic professionals he hoped that it would soon disappear as he observed in

western societies: “though myopia is one of the diseases that accompanies civilized life, fortunately it also goes away with the accomplishment of civilization and culture” (近視は文化生活に伴う病気の一つであるが、幸に文化生活が完成するに随って減って行く病気; Ibid.).



Portrait of Takano Rokurō. Source: https://www.kitasato.ac.jp/jp/about/overview/chairman.html

Yet disappear myopia did not. Less than two decades later in 1919, the Ministry of Education issued a stern edict called “On the Prevention of Myopia in Children and Students” (児童生徒及学生ノ近視予防ニ関スル訓令), calling myopia “an problem that cannot be dismissed lightly for the sake of the country” (国家ノ為軽視スルコトノ出来ナイ問題) for it was the reason more and more able-bodied adult males (*soutei* 壮丁) failed their physical evaluations each year (Nihon Gakkō Hokenkai 519). Extant records close to what was occupying the ministry’s mind were 1920 Imperial Japanese Army’s conscript evaluation results, where 2.72% of the total conscripts were deemed invalid; among them, myopia and trachoma were both responsible for 2.7% (Fujii 20, 175, 176). While this rate seems low, the IJA’s invalid criteria was less than 20/66 acuity in the best corrected eye, making the individual unfit for even the reserves or the local militia. From conscripts in active service, the Army required perfect vision in the right naked eye and at least 20/200 vision in the left (Fujii 176; Mahnken). Worrying to the high command, myopia rate in male elementary students—who would become

eligible for military service in the next decade—was already 12.93% by 1922[6]. Despite the government's pragmatic of relieving eye stress, including larger type sizes for textbooks and better illumination in public schools, it would only rise in tandem with Japan's literacy rate, reaching 17.92% in 1936 (Nihon Gakkō Hokenkai 63 [of statistics section]). Middle school was not compulsory, but the graduates would form the backbone of the officer corps or volunteer to join the more technically demanding Imperial Japanese Navy; among them, myopia rates were consistently more than twice as high, increasing from 27.68% in 1922 to 37.51% by 1936 (Ibid).

Concomitantly, after a decade of relatively stable politics despite mounting economic woes known as the Taisho Democracy in the 1920s, the 1930s marked Japan's descent into a militarist state. In 1931, the Imperial Japanese Army annexed Manchuria under its own volition, shocking the world and the civilian government, members of which would face coup attempts and assassinations, their power waning as the Armed Forces won Hirohito's approval and increasingly ran the nation. In 1933 Japan withdrew from the League of Nations, and by 1936 the Imperial Japanese Army began preparing for the full-scale invasion of China proper the following year. As conscription ramped up, the Army encountered what they had been dreading: not having enough eligible males to send to the front lines. In a top secret army report titled "Measures to Conscript Additional Adult Males Needed for Armament Improvement" (極秘 軍備改善二依ル壮丁増微ノ対策) published on Oct 22, the authors concluded that if the plan of conscripting 86,000 more soldiers annually by 1942 is to be accomplished, the army must make some compromises about the quality of the men (Fujii 16). While the most significant reduction in the standards ended up being lowering the height requirement across all categories by five centimeters to 150cm (4'11"), the Army was also unprecedentedly forced to start accepting those wearing glasses into active service (Ibid.).

[6] no earlier data is available, even though trachoma rates across all levels of education, as well as myopia rates of those in middle school and higher, were kept since 1913; one can ponder the reason myopia rates of elementary students began to be tracked after 1922.

A scramble medical effort to save the eyesight of soldiers and future soldiers soon followed. In 1937 and 1939, the Ministry of Education twice carried out “Special Investigation Regarding Eyes” (眼に関する特殊調査), ordering the “Imperial Universities and the ophthalmology departments of medical universities in Tokyo, Kyoto, Osaka, Chiba, Kanazawa, etc.” to perform “precise myopia examination on young students” (児童生徒に対する近視の精密検査; Nihon Gakkō Hokenkai 199). With the passage of the National Mobilization Law (国家総動員法) in 1938 that gave the government unprecedented control over civilian society, the Home Ministry ordered the banning of pronunciation guides—known as ruby characters—in children's books because their small size could cause eyestrain: an ominous sign that no aspect of life is exempt from serving the total war effort (Nakaya). Universities across Japan were ordered to pivot their ophthalmological research to topics of interest to the military, such as augmenting the eyesight of aviators, enhancing night vision, treating physical injuries to the eyes, and naturally curbing myopia (Tanihara, “Sensou”). At Tokyo University, Ishihara started heading Small Committee No. 40 of the Japan Society for the Promotion of Science [sic] focusing on myopia research; Dr. Satou Chikashi (佐藤邇), working on “Investigation of the Ocular Refraction Power Distribution Curve” (眼屈折度数分布曲線に対する考察), would recount the background of his research in 1993 in English (University of Tokyo Department of Ophthalmology; Howanisyan, “Kindai”):

> I did not start to study myopia of my own volition. (...) At that time, however, Japan needed more military personnel following losses in the recent Sino-Japanese war. Since Japan had more cases of myopia than any other country, myopic army officers and men were being killed and wounded in great numbers. The Japanese Ministry of Education therefore requested that a survey group for myopia be set up by the Japan Science Council to study the causes of myopia and countermeasures against it.

Equally significant was the government's effort to shift the narrative surrounding myopia. In 1939, the Ministry of Education and the Ministry of Health's issued a joint notice "The Case Regarding the Promulgation of Myopia Prevention Understandings"(近視予防思想普及ニ関スル件) that sought to "raise awareness more thoroughly" than the 1919 edict (Nihon Gakkō Hokenkai 576). The year before the Ministry of Health already helped found the Eyesight Protection Federation (視力保健連盟), among whose directors were Ishihara, Shōji, and the chief medical staff of both the Army and the Navy (Howanisyan, "Sensou"). The Federation is chaired by Takano, who in his new position also began expressing that "it is utmost concerning that most of our youth are going to wear eyeglasses; those who wear glasses cannot fight in a war" (青少年の大半が眼鏡をかけるやうになつては、一大事であります。眼鏡をかけた者ばかりで戦争などは出来[ない]; Ibid.). Though the Federation's ranks included many of Japan's top medical professoinals, it is not a research body, with its number one stated objective being "Popular Education on Eyesight Protection" (一、視力保健に関する民衆教育; Ibid.). To that end, the Federation created its monthly publication *Eyesight* (視力), aimed at young readers and their educators and soon circulated nationwide.

The first kind of rhetoric the Federation employed, directly asserting that poor eyesight prevents a soldier from fulfilling their duty to the country and the emperor, was straightforward and unvaried. The first issue of *Eyesight* carried the article "Myopia From the Standpoint of the Navy" (海軍の立場から見た近視) that enumerated the flaws of eyeglasses: although wearing them does not interfere with one's daily life, during military service glasses easily fog up, break apart, and moreover decrease the wearer's reaction time [sic] (Howanisyan, "Sensou"). Subsequent advocacy never became much more sophisticated than pointing out the truism that wearing glasses makes one a less deadly soldier. The Japanese Red Cross would supply more examples, listing that glasses also make it difficult to "conduct exact observations", "use weapons", and "wear a gas mask" (Ibid.). By 1944 as Japan prepared for the defense of the home islands against an Allied landing, Professor Shōji would a popular science text called *Warfare and the Eye* (戦争と眼). While he repeated the same platitudes (recall the beginning of this

section), this time he urged upon not just the young adult males, but all one hundred million subjects who are expected to contribute to the nation's last stand: "For the eventual victory of 100 million nationals united like balls of flame, our eyes are the most important. With bad eyes, one cannot fire a gun or fly an airplane […] to either protect the national land on the home front or serve the country in the industries, the eyes are of utmost importance" (一億の国民が火の玉となって勝ち抜く為めに、先づ大切なのは眼である。眼が悪くては銃はうてない、飛行機には乗れない。[……] 銃後で国土を護るにも、産業報国に挺身するにも先づ大切なるは眼である; Ibid.)

Yet alongside such heavy-handed propaganda, a more subtle kind of rhetoric was also at work—seeking to overall subvert the traditionally neutral societal views of myopia and stigmatize the condition. Proclaiming "The Purpose of the Myopia Prevention Movement" (近視予防運動の趣旨) in the first issue of *Eyesight*, the Federation ingratiated its position with the traditional view, recognizing that "myopia is one of the phenomena of the rapid changes civilized and cultured life brings" (視は、もと、急激な変化を来たした文化生活の過度的現象の一である), but asserts that it is hardly a necessary trait of modernity—rather a detriment towards achieving that: "Having excellent=healthy eyes is absolutely indispensable to conducting modern scientific warfare or increasing production" (優秀=健全な眼を持つことが、近代科学戦の遂行にも、はたまた、生産力拡充の見地よりしても、絶対に不可欠の要件たる). The author then claims that the prevention of myopia is not impossible given the said advancements of civilization, and "based on this understanding, to eradicate myopia from the citizens and rid Japan of the disgrace as 'the world's number one myopic country', the Myopia Prevention Movement's mission is to put every possible measure into practice" (この認識に立脚し、わが国民より近視を撲滅し、一日も早く『世界一近視国』の汚名を一掃せんがため、あらゆる方策を実践躬行するにある; Howanisyan, "Sensou").

The self-assigned label of "world's number one myopic country" runs in the same masochist vein as the rhetorical "barbarity" of trachoma, where the intellectuals and policymakers sought to motivate change in the population's behavior through shame and

humiliation, so that honor and redemption may seem as the natural option. On one hand, Takano would always be an apologist for Japan's high myopia rates. As the most senior speaker at the "Myopia Prevention: Scientific Exposition on the Eye" (近視豫防 眼の科学展) that was held during May 1944 in Tokyo, he continued attribute myopia with the diligence of the Japanese people, using the simile of a camera to illustrate that academic overexertion was the culprit to blame and popularize good reading habits (Red Cross Society of Japan 6):

> As our nation promotes widespread education and enrollment rates are extremely high[7], if the cause of myopia resides in schooling, it is inevitable that Japan is the most myopia nation in the world. Consider even a robustly-built camera; if it is used carelessly, or overused without sufficient operating knowledge, it too wears down. In the same manner, the eyeball that is more delicate than a camera […]
> わが国は教育が普及し、就学率の極めて高い国でありますから、もし學校教育中に近視の原因が含まれてゐるとすれば、日本が世界一の近視になるのは當然であります。丈夫に出来てゐる寫眞機でも、亂暴に使つたり、また使ひ方を十分に知らないでよい加減に使ふと、疲れてしまひます。これと同じやうに、寫眞機よりももつと細かく出来てゐる眼球は […]

His colleagues were less kind, admonishing the Japanese youth with the example of glasses-free Hitler Youth members who visited Japan in 1940[8], as well as the Italian youth who "mostly did not wear glasses" as proof that "it is absolutely not the case that hardworking individuals will develop myopia, nor that glasses are the insignia of hardworking individuals." (勤勉な者は必ず近視になる、眼鏡を掛けて居る事が勤勉家の印であるといふやうなわけのものでは決してない; Red Cross Society of Japan 23) Rather myopia makes one slower readers and worse students—imperceptive, comical, a disgrace in front of the allies and weakness laughed at by the

---

[7] he meant elementary school enrollment; only about 10% attended middle school at the time

[8] Note that speaker Dr. Ogasawara Michinari (小笠原道生) misremembered the date and said "was it the year before last year" (一昨年でしたか）.

enemies: "'Yellow face, glasses upon it, carrying a folding umbrella—he must be Japanese!' say the westerners. Myopia is a disease of national humiliation. Yet if are able to prevent such widespread myopia, this would also become an achievement the nation can greatly pride on." (『黄色い顔にメガネをかけて、コーモリ傘を持った奴を見たら日本人と思へ』と西洋人は云ふ。 近眼は国辱病である; Howanisyan, "Sensou"). One saving grace of the glasses seemed to be helping westerners distinguish the Japanese from other East Asians, reflected speaker Dr. Ogasawara Michinari, who did not wear glasses and found it regrettable that locals continuously thought he was Chinese during his time abroad (小笠原道生; Red Cross Society of Japan 20). Even so they were hardly ideal accessories for the master race of East Asia: "In conclusion, as exemplary rising citizens, shall we not survey askance over the new landscape of the Orient with eyes free of glasses?" exhorted Takano as he tried to end the sermon on an uplifting note (今まではとにかく、天晴れ新興国民たる我々は眼鏡のない眼で東洋の新天地を睥睨するやうにしようではありませんか; Red Cross Society of Japan 7).

Interlude: the end of the war

As Takano lectured the necessity of myopia protection and kept entertaining Japan's territorial and colonial ambitions in Tokyo, the US capture of Okinawa raged a thousand miles away. The Armed Forced repeated lied about the war they were losing, and state propaganda always further embellished any fictional victories. Yet as soon Tokyo was well within range of American B-29 bombers that began mass firebombings in 1945, the facade of normalcy fascists promised to their subjects broke down, and those that consuming or even part of the imperialist rhetoric found themselves in cognitive dissonance as reality surfaced. On August 15, 1945, Shōji Yoshiharu listened to Hirohito's radio address declaring Japan's unconditional surrender with his colleagues and students at Tokyo University. He recorded his shock in his diary as he expected the nation to fight against the brutal Allied landing forces to the last person, "becoming one hundred million balls of flame" as the propaganda had often advocated for (Tanihara "Kiseki"):

> At 11:45, as all the faculty and students were told to assemble at the grand auditorium of the main campus, I wiped off my sweat, rectified my appearance,

and gathered at the auditorium. Undoubtedly, we were facing an unprecedented crisis in the past three millennia of Japanese history. The United States dropped the most atrocious weapons since the origin of humans—the atomic bombs—in one act murdering hundreds of thousands innocent civilians in Hiroshima and Nagasaki; the Soviet Union unilaterally broke the Non-Aggression Pact and invaded Manchuria and Korea. Facing such evils against humanities, the fury of our one hundred million people has reached the zenith. Should Japan now become one hundred million falls of fire and rush into the enemy, to show them the existence of righteousness even if the country shall perish, I thought about these things as I waited the moment to arrive [...after the broadcast started…] I worshiped from afar in the direction of the imperial palace, listening attentively with my ear turned; each word of the majesty's voice of jade, delivered quietly from the bottom of the heart, permeated into one hundred million chests about to explode. Filled with desolation, the blood of my body froze in one instant. After that, though I could hear I could not understand the words…

11 時 45 分，職員学生一同，本部大講堂に参集すべしとの伝達があったので，汗をぬぐい形を正して講堂に集まった。実に今や日本は三千年来にない危機に直面している。米国は人類始まって以来の残虐なる武器原子爆弾を投下して，一挙に広島・長崎において数十万の無辜の民を殺害し，ソ聯は不可侵条約を一方的に破棄して満州朝鮮に侵入した。かかる非人道的邪曲に対し我等一億の憤激は極点に達している。日本は今こそ一億火の玉となって敵軍に殺到し，国亡ぶるも正義の存することを示すべきであるなどと考えつつ，時刻の来るのを待った。[…] 宮城の方を遙拝し襟を正し粛として耳を傾けていると，玉音静かに言々句々肺腑より出づる御言葉は，一億の胸を張り裂くまでに浸透する。悲愴やるかたなく，身中の血液一瞬にして凝結せるかと思われた。その後，耳に聞けども解する力なし・・・・・。

Yet the postwar age begun abruptly and inevitably. Shōji kept his role at Tokyo University until he was dismissed in 1950 for his past affiliations and inability to handle postwar communist student movements that demonstrated against his authority during Allied Occupation that lasted until 1952 and lived until 1981 (Ibid.). Takano kept serving in various public and semi-public roles until his death 1960 (Horiguchi). Ishihara, who went on to become the headmaster of Maebashi Medical University after his professorship at Tokyo University, was dismissed in 1946 for his far closer ties with the Imperial Japanese Army. He opened a clinic in the Izu countryside and continued myopia research, specifically advocating for the elimination of logographic Chinese characters (kanji) from the Japanese writing system. Considering these characters low in legibility and causing excessive eyestrain, Ishihara saw them as an Achilles's heel of the Japanese people. He was vocal that "compared to the Europeans and the Americans, [the Japanese people] suffer greater burdens in science, industry, economy, culture, education and many other fields [for orthographic inefficiency], becoming a handicap in the survival of the fittest" (欧米人に比して科学、産業、経済、文化、教育その他種々の 面において大きな負担となり、生存競争上のハンディキャップとなっているところ), and published alternate Japanese writing systems resembling European-style alphabets until his death in 1963 (Howanisyan, "Kindai").

Conclusion: the present and shat the past may imply

Beyond these most prominent figures, in the general medical community ophthalmological research on myopia continued, acknowledging their continuity from the war era to various degrees. "Schoolchildren and Myopia" (學童と近視) published in 1949 soon recontextualized the motivation for myopia prevention. Acknowledging that statistically myopia rates among children seemed to have decreased during the course of the war—perhaps due to medical efforts, the Federation's rhetoric, or simply interruption to normal schooling—the article referred to whatever cause as "correlated with changes in the lives of citizens during the era" (その間に於ける國民生活の變化との關連), and forecast that the rate will likely grow again with the return to normalcy, necessitating the need for myopia research and prevention (Ōzono). Most

research however refrained from offering any social commentary. “Correlation between Myopia and Bodily Growth of School-children” published in 1953 used data collected from elementary students in 1940, has Ishihara’s name in the first citation, and stayed completely medical—a recurring theme in the years to come.

With improved standards of living, newer medical science, and a fairer society that provided more social welfare and healthcare access, postwar Japan realized the goal of treating widespread eye conditions as well as any other developed nation. By 1985, the Japanese Society for Trachoma Prevention that Kōmoto chaired in the 1920s and 30s renamed itself to Japan National Society for the Prevent [sic] of Blindness with the disease’s eradication. Sakai Shizu (酒井シヅ), former chairman of the Japanese Society for the History of Medicine born in 1935, reminisces that in Pompe’s time Japanese eye doctors “hardly know anything about treating eye diseases”, and foreign knowledge transformed their understanding. Now it is time for Japan to proudly return the favor to the world: “Even today developing countries suffer from prevalent eye diseases and high rates of blindness,” he wrote in 2002. “Japan is assisting the WHO in sending ophthalmologists to developing countries to help lower rates of blindness. Only 150 years ago Japan was a country overrun by eye diseases; now it has turned around into a country instructing others on the prevention of vision loss” (ところで、発展途上国ではいまも眼病が多く、失明率が高い。日本は WHO に協力して、発展途上国の失明率を下げるために眼科医を現地に送っている。わずか百五十年で日本は眼病の多い国から一転して、失明予防の指導国になっている。; 101).

Nevertheless, myopia has only become more common in Japan, today one of the most-affected regions of the “myopia epidemic” that engulfs East Asia. Per the results of the 2021 School Health Statistical Survey published by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT) in July 2022, more than 1 in 4 Japanese children entering elementary school has less than 20/20 vision, while for those graduating the proportion is more than doubled at over 60%. Although the survey collects physical examination results across a wide range of conditions including tooth cavities, cardiovascular conditions,

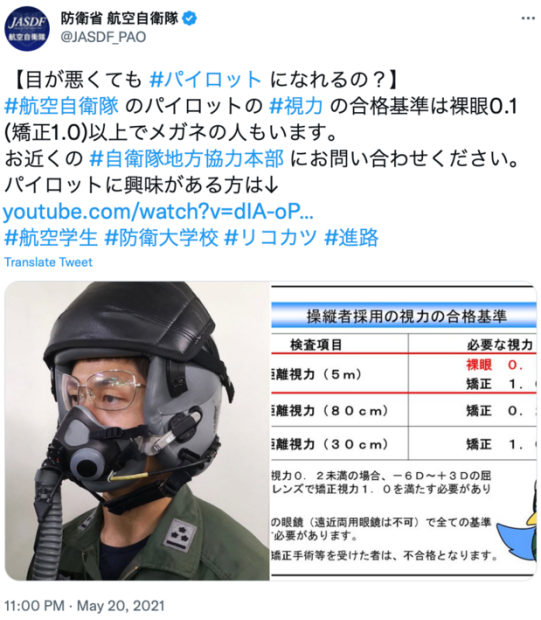
tuberculosis, atopic dermatitis, etc., in the conclusion of the survey results, the MEXT seems solely concerned about the deteriorating vision of Japanese children:

> 4. Guidelines for future responses and policies
>
> As we plan to continue to determine the health situation of our children, (note) in particular the percentage of children with naked eye visual acuity of less than 1.0 is experiencing an overall trend of increasing with the children's age.
>
> The MEXT, continuing from 2021, in 2022 again conducts a nationwide myopia survey screening elementary and middle school students; as the details of vision impairment (myopia, hyperopia, astigmatism) becomes clear, we are taking necessary measures to prevent vision impairment in children.
>
> 4. 今後の施策の対応方針
>
> 今後とも,子供の健康状態について継続的に把握することを予定していますが，特に裸眼視力 1.0 未満の者の割合は，年齢が高くなるにつれておおむね増加傾向となっています。 文部科学省では，令和 3 年度に引き続き，令和 4 年度も全国の小中学生を対象に近視実態調査 を実施しており，視力低下の詳細(近視，遠視，乱視)を明らかにした上で，有効な対策を検討してまいります。

The conspicuous gap of social discourse in myopia rhetoric remains as the Japanese government confines itself to drowsy bureaucratic prose. Yet while gone are explicit the nationalist fervor and anxiety that the poor eyes of the subjects would cost Japan its empire, the very same sources of anxieties motivating the old rhetoric have remained. For example, on the vintage relationship between myopia and diligence, in 2002, the Japanese government introduced a less-intensive national curriculum, known as Yutori ("pressure-free") education, that included delaying the introduction of certain material until high school. In the article "Impact of the Pressure-Free Yutori Education Program on Myopia in Japan", published in English in *Journal of Clinical Medicine*, the Japanese authors again investigated the timeworn correlation between myopia progression and schooling, and were able to establish that "the pressure-free education

policy reduced myopia progression" and that "the progression rates of myopia and increased prevalence of high myopia were observed only during high-pressure education." But perhaps unsurprisingly, in the Programme for International Student Assessment (PISA) of 2003 and 2007 that tested the reading, mathematics and science knowledge of 15-year-olds, Japan did much poorer compared to in 2000, dropping from the first to the sixth then the tenth place (Ishiko et al.). "The Japanese nation was shocked by this turndown of students' academic abilities resulting from Yutori education", wrote the authors, "Therefore, pressure-free education might contribute to both preventing myopia progression and decreasing the educational standing." Since then the Japanese have started reintroducing rigor back into the curriculum, often known as the de-pressure-free education (脱ゆとり教育)—perhaps a statement that policymakers value educational standing more than eyesight, physical and mental health, and the myriad other student-centric considerations that motivated the Yutori policy in the first place.

Likewise, the topic of whether myopia causes detriment to a soldier's fighting abilities lurks even as the postwar Japanese constitution explicit outlaws the country's sovereign right of belligerency. Japan keeps an increasingly potent Self Defense Force, and given such high national myopia rate, the Air Self Defense Forces currently places virtually no requirement on the uncorrected vision of pilots. A recruit post on Twitter from May 20, 2021 shows a picture of a bespectacled pilot and reads encouragingly as follows:



Ministry of Defense - Air Self Defense Force

【I Have Bad Eyes, Can I Still Become a #Pilot?】

Since the qualifying #eyesight standard for #JASDF pilots is 0.1 [20/200] in naked eyes (1.0 [20/20] after correction), there are glass-wearing pilots too.

For inquiries, contact the #JSDFProvincialCooperationOffice close to you. If you are interested in becoming a pilot ↓

[YouTube video link]

#aviation students #National Defense Academy #rikokatsu

[unrelated popular hashtag] #your future course

Source: https://twitter.com/JASDF_PAO/status/1395620373304123392

The Japanese government surely prefers to have more pilots with perfect vision, as it surely hopes that the JSDF become a more formidable military force, something it has repeatedly enabled through reinterpretations of the constitution's relevant article and recent the controversial conversion of Izumo-class multi-purpose destroyers into aircraft carriers.

These developments present a worrying implication: if old nationalist rhetoric had only been inhibited by the new, postwar social outlook from surfacing, then conversely, should the social contexts that once motivated the old rhetoric reemerge—through shifting geopolitical circumstances, constitutional amendments, economic woes, demographic change, etc.—then the old may become the new once again. For perhaps no society has fully learned all the lessons of modernity—the ethics of scientific progress, the liberty and dignity of an individual in relation to the state and the society, and the all-consuming flame of nationalist ambition.

Coda

As stated in the forewords, I wanted this work to be a meta-commentary on the historiography many of the sources I consulted. Some of the historical accounts employ laughably absurd narratives. For example, *The Hundred Year History of School Health* (学校保健百年史), published in 1973, casually entertains that Imperial Japan's conquests were defensive acts, stating the 1939 joint notice was issued in the context of "Since the Manchurian Incident of Showa 6 [Japanese Invasion of Manchuria in 1931] and the Chinese Incident of Showa 12 [Japanese invasion of China in 1937], the necessity of eyesight protection for national defense gradually intensified; thus […]" (昭和六年満州事変、同十二年支那事変の発生以来、国防上視力保護の必要性がいよいよ高まったため、[…], 198). Most of the others however posed themselves as only showing "what actually happened", refraining from using an argumentative voice.

This narrative thus foremost invites attention into the fallacy of neutrality of historical narratives. Even as we know "show not tell" is the mark of a great storyteller, readers of histories are often mesmerized by well-presented evidence that we forget we too are being told a story. Was the course of events itself so imbued with exciting clarity, or did the author leave the breadcrumbs on the scenic route? More cautious readers of my narrative may have noticed that the events I reported flowed almost too well into one another, that one date followed another, and one figure led to the next. Was I guilty of cherrypicking and manipulation? I candidly say if I did I do not know myself, for I strung together the most representative facts and interpreted all records faithfully to the best of my ability. Yet for every quote I included, another one could have been there. For every event I reported, I usually had to omitted everything else that happened at the same time. Thus constructing a historical narrative is laying down the tracks of a rollercoaster, where we control what the reader sees and the light in which they see them—a tempting opportunity for anyone less scrupulous. Moreover, misinformation does not have to be intentional. Prior to the final draft I committed several anachronistic mistakes, as I only gained

access to more sources that dated the events with greater detail over the course of writing. Perhaps we have done injustice to the past, at the times we just got something wrong.

This narrative also asserts its own voice to counter bias I identified. For example, many sources tended to present the Japanese government, its policymakers and advisers as passive bureaucratic entities, reacting to changing societal trends with no ulterior motives of their own. Rather than feeding back into the apolitical technocrat myth (like Albert Speer's involvement in Nazi Germany), my narrative highlights the lesser known aspect of history to show that this was not the case, focusing on both the progress of modernization and the new instances of injustice and hardship the agents of progress also inflicted. At times I offer a more explicit commentary that better fits the argumentative nature of the RBA better—most often simply asserting causality between two events. Is causality real? a fact? philosophical opinions may differ. I am sure that in my voice as the narrator they certainly seemed tangible and logical. But when I read history, I must remind myself they are but ladders spanning chasms made of ice, impermanent, artificial fixtures upon the historical landscape.

Finally, even though my narrative tries to bring attention to a margin of modern Japanese history, I realized that it is far from being totally innovative and fresh. As an example, the experiences of women, not part of the fighting effort or well-represented in the medical community, is almost entirely absent from my narrative—which reflects the gaps across the sources I have read. In computer science there is the concept "garbage in, garbage out"; as a responsible writer I cannot perform alchemy and uncover facts I have not learned. This is why the title is called "Things They Said", for ultimately I realized my narrative follows closely the lives of prominent men. Even as I deplored the lack of more diverse narratives as I introduced Hosokawa's plight, the rest of my narrative still traced the careers of four medical doctors: Kōmoto, Ishihara, Shōji, Takano. Things they said, things they wrote, things said and written about them are accessible and discussed in scholarly discourse—ultimately leading me to start and build my narrative off them, even as I did not portray them in the most flattering light.

I think back to the disability myths this class has focused on, where the disabled—or perhaps any marginalized group—have their stories written for them. In my narrative, "Things They Said" are the myths about those with contagious or chronic eye conditions. While exposing their hypocrisy, especially with the benefit of hindsight, is perhaps a valuable practice in itself, as I finish my project I realize I also yearn for the stories and experiences of those who are objectified and on the receiving end of the rhetoric (not just carrying the condition, as most of these men had myopia themselves)—which will be an entirely different undertaking. I am sure that given the recentness of the events some primary records must be extant—yet given the lack of prior work in this regard the task seemed as impossible as extracting needles from the haystack to build a porcupine.

This work has many avenues for improvement. Another round of revisions and crafting of the narrative would refine it much more and inspire a more comprehensive conclusion. Additionally, I had to pass up on several sources that seemed particular relevant to this project, for although the Stanford Libraries shows any text available in the National Diet Library Digital Collections as "Fulltext Available", Stanford Libraries is not a partner institution and there is actually no access provided. But to fundamentally improve this narrative requires writing a new one complementing it, with new evidence from new perspectives currently in the periphery of scholarly discourse. Thus most importantly, I urge everyone who wants to challenge the traditional narratives and *status quo* surrounding histories like this to contribute original research, to go down the less-tread path, even if just for a little bit, such that together we may clear away the overgrowth of neglect, and new ideas may blossom in these new intellectual spaces under light.

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