
David G. Wittner

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Why would Japanese scientists, the so-called defenders of rationality, promote an interwar and wartime nationalism that was based on the imperial mythology? How did nationalists and scientists who were on seemingly opposite ends of the rationality spectrum end up promoting Japan’s interwar and wartime agendas from the same perspective? These are questions that Hiromi Mizuno seeks to answer in this ambitious and well documented book.

Mizuno identifies three groups of protagonists each of whom attempted to claim and promote science from their own perspective and for their own causes; technology-bureaucrats, whom she calls technocrats, Marxist intellectuals, and popular science writers. Part I examines the technocrats. By and large civil engineers working in the government bureaucracy, the technocrats claimed authority over the so-called law-bureaucrats through their scientific-technological expertise. Following the establishment of the Kōjin Club (Kōjin kurabu 工人倶楽部) in late 1921, technocrats sought to promote the role of engineers as creators of technology whose activities improved society through “rational means” (p. 25). As the Kōjin Club’s membership grew however, so did its ideological diversity and the club found itself increasingly involved in party politics.

By 1925, many Kōjin Club engineers called for the proletarianization of the profession, a position that was hard to reconcile with their bourgeois social status and educational background. The struggle for a single class identity continued for years but eventually faded as the Kōjin Club’s leadership abandoned class politics and moved toward nationalism as the way to unite the disparate group. In embracing the nation as their cause, technocrats continued their assault on law-bureaucrats through their claim that only engineers had “the capacity to scientifically understand social matters” (p. 41). Technocrats staked out the middle
ground between “irrational’ Marxism,” that claimed its own scientific legitimacy, i.e., scientific socialism, and the “irrational’ extreme right” whose nationalism relied on myth not science (p. 42). Through their claims of scientific rationality, the technocrats later came to embrace a new racialized nationalism that differentiated Japan from its Asian neighbors based on a scientific hierarchy with Japan as the leading scientific nation. “Technological patriotism” in the 1930s, argues Mizuno, mobilized engineers in support of a rational and scientific Japanese empire. Entering the wartime years, technocrats embraced the Konoe government’s New Order for Science-Technology (kagaku gijutsu shintaisei kaku-ritsu yōkō 科学技術新体制確立要綱). What essentially amounted to being a plan for creating a scientific empire, the New Order was the realization of nearly two decades of technocrat efforts to lead a scientific Japan.

As Mizuno points out, however, not all Japanese agreed on the definition of “scientific Japan” (p. 68). In Part II, Mizuno turns her attention to the Marxist intellectuals. Unlike the technocrats, the Marxists believed that science was universal, that the social sciences were fields of science, and that Japan’s unscientific nature was rooted in the country’s incomplete modernity. Through the voices of men such as mathematician Ogura Kinnosuke 小倉金之助, historian Saigusa Hiroto 三枝寛音, and philosopher Tosaka Jun 戸坂潤, Mizuno illustrates the formation of an unintended alliance between Marxist intellectuals and the state.

Throughout the 1920s, Ogura struggled to thoroughly understand the problems of Japanese science. Marxist theory provided him the means by which to analyze the social and natural sciences and define a rational, Japanese scientific spirit. Moving into the 1930s, the debate between the technocrats and Marxist intellectuals increased despite state suppression of all things Marxist. Even within this hostile political climate, Marxist intellectuals established the Yuibutsuron Kenkyūkai 唯物論研究会 or Yuiken 唯研 to study the theoretical relationship between science and society. In an ironic twist, Yuiken members like Saigusa Hiroto created a legitimate Japanese scientific past that removed the implicit Western from scientific spirit allowing science to be merged with Japanese spirit. This ultimately lent support to the state and its war effort.

Turning to the non-academic side of science in Part III, Mizuno examines how popular science writers contributed to the development and spread of “scientific nationalism” from the 1920s through the 1940s. As part of an emerging interwar mass media, magazines such as Kagaku gahō 科学画報 (Science Illustrated) and Kodomo no kagaku 子供の科学 (Children’s Science) promoted science as “a commodity packed with the sense of wonder” (p. 144). Mizuno compares the magazines to the international exhibitions that filled one’s senses with the spectacle of science.
The average reader was enticed into “doing science” by articles urging them to build things such as model radio sets. As Japan became embroiled in a war on the continent, popular writers redefined their readership’s scientific interests through exposés of the latest military hardware or science fiction stories about future wars fought with imaginary weapons. Science for the sake of the peaceful nation was transformed into serving the warring nation through science. Despite their marked opposition to the technocrats’ politics or the Marxists’ class ideologies, popular science writers similarly promoted their own brand of scientific patriotism which Mizuno later describes as scientific nationalism.

Following the Pacific War, many Japanese wondered if it was science that led Japan to wage war or whether it was the lack of science that led to Japan’s surrender. Regardless, the postwar era saw a reconfiguration of science and scientific nationalism toward the development of a democratic and peaceful society and intellectuals who continued to examine Japan’s scientific (or un-scientific) nature.

Mizuno relies on a variety of sources ranging from philosophical treatises and musings to children’s magazines that are often overlooked in studies of this sort. Her conclusion presents a brief excursion into the continuity between prewar and postwar science and its role vis-à-vis the state. This reviewer wishes that she expanded this line of inquiry as well as perhaps extending her analysis to show the relationship between the state and her protagonists and how this influenced, if at all, their discourse on science-technology.

That said, this is an excellent study of Japanese science from the interwar through wartime years that will stand the test of time. Mizuno has provided valuable insight into the minds of technologists, scientists, philosophers and historians of science, and writers that reveals their motivations as they related to one another, the state, and society at large. This book is a welcome addition to the small but growing literature of the history of science in Japan.