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Trajectories of Three Grains in Modern South Korea

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In 1935, a newspaper article in colonial Korea declared, in all seriousness, “Polished white rice is poison.” It warned its readers that Koreans’ appetite for white rice could eventually lead them to beriberi, a dreadful disease of vitamin B deficiency.¹ Seventy years later, in 2005, South Korean national television aired a series of public advertisements titled “Rice: The Energy of Koreans” to promote rice consumption at home. One of those advertisement ends with a close-up shot of a bowl of glossy white rice, freshly cooked to emanate irresistibly appetizing steam.² Unlike the newspaper article in the colonial past, the television advertisements did not mention the potential risk of white rice at all; they simply enticed their audience to consume more rice, no matter whether it was processed or not.

What made Koreans in the mid-1930s concerned about the perceived deficiency of white rice, and then in the 2000s made them completely forget its supposed defect? If vitamin deficiency was not the biggest problem with Koreans’ diet, what was the real threat? And what made the South Korean state persuade its people to eat more rice?

To answer these questions, this chapter compares the trajectories in modern South Korea of three major grains: rice, barley, and wheat. While rice has always been considered the best of all foods for Koreans, wheat transformed itself from a rare delicacy in the past to the second most important cereal today, although its demands could be met only by importing the grain in large quantities. Meanwhile, barley, once a vital substitute or supplement for rice on South Korean tables, has lost its status and

become virtually nonexistent. I will trace these crisscrossing trajectories within the context of the history of modern agricultural science and technology, which illustrates the dialectics between the global and the local that are at the basis of their attributed changing dietetic values.

Rice, Barley, and Wheat in Premodern Korea

Rice has been the most important cereal crop for Koreans since its introduction to the Korean Peninsula. *Oryza sativa*, commonly known as domesticated Asian rice, is believed to have been introduced to the Korean Peninsula from China. Carbonized rice grains excavated in Sorori, Chungcheongbuk-do, South Korea, in 1998 are acknowledged to have been buried in the late Paleolithic era (between thirteen and sixteen thousand years ago), which makes it the earliest existing sample of rice used as food.³

Until the early twentieth century, however, rice was the staple crop for Koreans more in imagination than in reality. Owing to a chronic shortage of rice, common people in premodern Korean society could expect a bowl of glossy, thoroughly polished white rice only on a family ritual day or on national holidays. Nothing could illustrate Koreans' desire for rice more strikingly than a North Korean political slogan, "Rice is socialism," which promised "a bowl of white rice and a bowl of meat soup" as an outcome of the socialist revolution.⁴

As a shortage of rice was not unusual, Koreans developed various alternative food crops to avoid the risk of famine. Barley was the most important alternative, or supplement, to rice for two reasons: one, barley granules could be cooked together with rice without milling, which made it perfectly compatible with the Korean food culture centered on rice, and two, Koreans had found that the double cropping of barley and rice might be a reliable combination in many parts of the Korean Peninsula. One example of the historical importance of barley is the idiom "barley peak" (also translated as "barley hill"), which was familiar to all Koreans until the 1970s. The "peak" meant a critical period in late spring when rice harvested the previous autumn had run out but the spring barley was not yet harvested. If one was lucky enough to survive the barley peak without perishing, then one could anticipate a bountiful harvest in the autumn and another year of subsistence—until one faced the next barley peak. As this idiom implies, barley greatly contributed to the sustenance of Koreans over the centuries.

Other crops, including various kinds of beans and sorghums, were widely cultivated throughout the peninsula as well. Potatoes and sweet potatoes were introduced to the Korean Peninsula in the seventeenth century and soon became important crops in some areas. Beans, mostly soybeans, were also important as the sources of protein in an agrarian society in which meat was generally scarce. All of these “minor” crops could be mixed with rice and barley and cooked together, but they were considered ingredients for side dishes or condiments rather than staple crops.

Wheat, on the other hand, was not a part of the everyday diet of pre-modern Koreans. Wheat was cultivated in limited area within the Korean Peninsula, and its production was nominal compared with rice and barley. There were native Korean varieties of wheat, some of which were adopted by Japanese agronomists by the end of the nineteenth century and improved to become the Japanese semidwarf wheat variety “Daruma.” “Norin No. 10,” a modern successor of Daruma, was subsequently adopted by American agronomists as one of the parents for agronomist Norman Borlaug’s famous semidwarf wheat of the late 1950s.⁵

For Koreans, however, cooking with wheat was generally considered to be a different, rather than complementary, way of cooking than with rice or barley. First of all, unlike rice or barley, wheat could not be cooked in granules but needed extra preparation procedures such as milling and kneading. In addition, as an oven was not part of the traditional Korean kitchen, baking was not widespread in Korea. A more common way of cooking with wheat flour was to boil or fry dough in various forms. Although several premodern cookbooks had recipes for wheat noodles, they were usually described as special—“foreign,” as in “imported from overseas”—items for special occasions, such as a family ritual or a reception of important guests. Even today, wheat flour noodles in warm broth is a common element of a feast.⁶ It is not uncommon in a Korean wedding, which is predominantly “Western” in many ways, to include a small bowl of noodles in a French course at the reception dinner.

The Stigmatization of White Rice through Modern Nutritional Science

The dominant status of rice as the staple crop (however symbolic, due to lack of supply and availability) was not challenged even after Korea’s encounter with Western modernity in 1876 and subsequent colonization

by Japan in 1910. It is noticeable, however, that there was a subtle but important change in the way rice was perceived and the manner in which the rice shortage was described. While the chronic shortage of rice in pre-modern Korea was usually described as an inevitable malady owing to a lack of agricultural technology and excessive exploitation by landlords, the language of modern nutritional science (which, since the 1920s, has become the mainstream health discourse) dared to imply that it might not be so lamentable to consume less white rice. According to newly emerging nutritional science, eating other crops as alternatives to rice might not be an avoidable result of poverty but possibly an active choice for improving individual health.

Transplanted Fear of Deficiency Diseases

The warning against white rice that began in the early 1900s was based on contemporary research on beriberi—a syndrome caused by a deficiency of vitamin B1 (thiamine).⁷ Beriberi was first researched by the Dutch in Batavia in the nineteenth century and reported to the West as an endemic disease in rice-eating Asian countries.⁸ After the Meiji Restoration, Japanese doctors trained in Europe began research on the disease, which was also known as “*Edo wazurai*” (Tokyo disease) in Japan.⁹ Takaki Kanehiro, a Japanese naval doctor trained in Britain, was one of the pioneers who noticed in the 1880s that a wider range of dietary choice could reduce the outbreak of the disease. Similar findings were also reported by European researchers, including Christiaan Eijkman (1897), Frederick Hopkins (1898), and Gerrit Grijns (1901). Edward Bright Vedder confirmed that rice bran extract could cure beriberi in the early 1910s. In 1910, Suzuki Umetaro, a Japanese biologist trained in Germany, succeeded in isolating from rice bran the substance that could prevent and cure beriberi. He named it “*aberic acid*” (later “*oryzanin*”), but an independent isolation experiment by Polish biochemist Kazimierz Funk in 1912 gained wider recognition, along with Funk’s terminology for the same substance, “*vitamin(e)*.”

Once the concept of vitamins was identified, pharmaceutical companies and food producers rushed into this whole new area in the drug market. Suzuki himself patented his “*oryzanin*”—derived from *Oryza sativa*, the scientific name of domesticated rice—in Japan and commercialized the rice bran extract for the prevention and cure of “beriberi, malnutrition of children, loss of appetite,” and also for the provision of nutrition “before and after delivery or illness.” Other manufacturers also tapped into the

vitamin supplement market, with a variety of contents and sources: cod liver oil for vitamin A, beer yeast for vitamin B complex, and citric acid for vitamin C, to name a few.¹⁰

However, one irony of nutritional deficiencies is that they can be so easily cured once they are identified, because the necessary intake of micronutrients is usually so small. Since most vitamin deficiencies can be successfully cured and prevented just by adjusting one's everyday diet, it is in fact hardly necessary to spend extra money to purchase a commercialized product. To prevent beriberi, for example, it would suffice to mix a small portion of brown rice or barley into rice, or to prepare side dishes with vegetables containing vitamin B.¹¹

That irony was even more apparent in societies such as that in Korea in the premodern and early modern periods, in which the "excessive consumption of white rice" had virtually never happened. Beriberi was called "Edo disease" in Japan, where patients of the deficiency were found mostly in big cities, where wealthy people could consume polished white rice as much as they could afford. Beriberi was not reported as a serious problem in rural areas, even before the identification of its nature and cause.¹² In early modern and colonial Korea, where rice supply usually fell short of demands, beriberi had never been a nationwide problem. Western missionaries in the late Joseon also reported that, unlike in Japan, they could seldom identify beriberi patients even in Seoul, the biggest city.¹³

Thus it was necessary for manufacturers and vendors to create new needs for commercialized vitamin supplements, to eventually create the market that had previously been nonexistent at all. Promoting fear of vitamin deficiencies that were "discovered" in colonies between the two world wars was the easiest way to create a need for vitamins, although vitamin deficiency was not an eminent threat to Koreans. Since the 1920s, Korean people had seen dreadful images of patients of beriberi, scurvy, and rickets in news, advertisements, and school textbooks. As a result, Koreans were gradually taught about vitamin deficiencies and the necessity of vitamin products as nutritional supplements.¹⁴

Wartime Austerity and the Mobilization of Nutritional Science

From the late 1930s onward, a growing awareness of vitamins, initially taught by pharmaceutical and commercial corporations, was intermingled with a campaign against white rice by the Japanese imperial state. Since

Japan's invasion of China in 1937, the Japanese government had implemented severe austerity policies throughout the empire. Consumption of white rice was strongly discouraged, and the use of rice for brewing was banned.¹⁵ From the state's point of view, if all civilians and soldiers in the empire consumed only brown rice, the effect would be equal to an increase in the national production of rice by one-third, because about one-quarter of rice grain (by volume) is lost to husking.

The state justified its austerity policy in the name of nutritional science. Officially, the reason to encourage the consumption of brown rice or mixed grains was not to save rice for the frontline but to maintain people's health. Since the 1920s, researchers in Keijō Medical College and Keijō Imperial University had conducted field research on Koreans' diets in different groups, usually in schools and prisons, and analyzed their nutritional balance.¹⁶ Although the research did not explicitly support the propaganda against polished white rice, the implication—especially the finding that other grains could be better than, or as good as, rice in terms of nutritional value—was cited by the colonial authority to justify its policy.

State-controlled media earnestly delivered articles warning of the potential harm of white rice, along with news that the rice saved by schools, corporations, and other groups on the home front was being donated to the frontline. This rice was usually “saved” through a massive *honsik* (mixed-grain diet) campaign, which in effect acted as an extra taxation on the people.¹⁷

One problem with the sustainability of the *honsik* campaign was that people were forced to compromise their everyday diet. For Koreans, as for most Asian people, white rice was best suited to be cooked whole. Brown rice was stiff, compared to fully polished rice, and hard to digest owing to its husk; barley was generally considered to be acceptable but was far less palatable due to its toughness; beans, widely recommended as a source of protein, were often mixed with rice, but their bulky texture was far from being consonant with the tender and chewy texture of rice. Bean-mixed rice was usually provided to soldiers and prisoners, for it was considered to be the most economical and efficient way to provide protein. The “bean rice” was so much hated in Korea, however, that the idiom “eating bean rice” came to mean “being imprisoned.” The colonial authority also promoted other minor grains, including sorghum and millet, but none of these was warmly received.

To respond to the issue of palatability, food scientists developed “artificial rice,” starch from various grains milled and processed in a granular shape. Nutritional science was again mobilized for the justification of this new invention.¹⁸ Nutritional scientists published articles on the nutritional value of the artificial rice, claiming that artificial rice was more nutritionally balanced, not to mention more affordable, than real rice.

Whether they believed it or not, people of the Korean Peninsula did not have any other choice, when more than half of the rice production was “exported”; 56 percent of the rice was transported out of Korea in 1942, and 68 percent the following year.¹⁹ In the last stage of the Pacific War, when the demise of the Japanese Empire became apparent, the colonial authority rationed bean cake—residue from soybean oil—as substitute for real rice.²⁰

Even after the war ended in 1945, the collective memory of the austerity and mandatory “diversification of diet” continued to influence Koreans in two ways. First, Koreans were exposed to “scientific” discourse that stigmatized polished white rice, whether they believed it or not. Second, the memory of forced austerity traumatized Koreans and made them reluctant to accept “alternative” grains, including “southern rice,” the indica rice occasionally rationed during the war.

The Sudden Abundance of Wheat in Postwar South Korea

The PL480 and Influx of American Wheat

Although some Koreans began to cultivate a taste for wheat under Japanese colonial rule, wheat was not an important part of Koreans’ everyday diet until enormous amounts of wheat were released in South Korea by way of American foreign aid programs.

The Public Law 480, or the Agricultural Trade Development and Assistance Act, of 1954 was particularly significant in terms of this change. It allowed developing countries to pay for American food imports in their own currencies, instead of using US dollars, and eventually accelerated the influx of American wheat flour into the South Korean market.²¹

In the 1950s and 1960s, American wheat contributed substantially to sustaining Koreans on the verge of famine, but the massive importation of

American wheat in effect eradicated wheat farming in South Korea. The share of Korean wheat in domestic demand dropped sharply from 70 percent in 1955 to around 25 percent in 1958, and later fell even lower. Although one should also consider the big increase in overall demand since the introduction of American wheat, this decline was remarkable and also irreversible. The rush of American wheat also affected rice farmers, because the low price of American wheat prevented the rise of the market price of rice.²²

Although wheat was still foreign to them, South Koreans in effect had no choice but to embrace it in the midst of the ruins of the Korean War. As bread was too foreign to most Koreans, many South Koreans became acquainted with wheat through dishes that were analogous to existing Chinese or Japanese dishes or could be cooked in Korean ways. Soup with dough-flakes (*sujebi*), noodle soup, and dumplings were introduced into everyday South Korean menus by the late 1950s. *Jajangmyeon*, a localized variation of Chinese noodles with black bean sauce (*zhajiangmian*), was popularized in the mid-1950s and eventually became the most popular family eating-out choice since the 1960s.

The Era of *Bunsik*, with Reluctance and Reservation

The Park Chung Hee administration (1962–1979), which led the rapid economic growth of South Korea, promoted *bunsik* (a wheat flour diet) in the belief that controlling cereal prices was one of the keys to successful economic development. In November 1962, the government launched the “Encouragement of Honsik and Bunsik Movement” as a nationwide campaign. It mandated that all rice vendors and restaurants could not sell white rice, whether raw or cooked, without mixing it with at least one-fifth of other “minor” grains (*japgok*). It also announced that cafeterias in schools and public offices must also mix other grains with white rice.²³ Enforcement became even stricter the following year, when the government banned the sale of any kind of rice product for lunch. All public officers were mandated to have bread for lunch at in-house cafeterias. Since January 1969, every Wednesday and Saturday were designated “*bunsik* day,” when no rice was allowed for lunch at all and barley or wheat must be mixed into a quarter of the dinner items at every restaurant.²⁴ The state also legislated that “*bunsik* centers” should be established in every municipal district, where people could find diverse dishes

made of wheat.²⁵ To justify these strict regulations, the state again mobilized nutritional science, which asserted that *honsik* and *bunsik* were better for health.

The brewing industry was also forced to comply with state policy to reduce rice consumption. Starting in July 1963, it was announced that every Thursday would be “no-alcohol day,” and as of 1964 the use of rice for brewing was completely banned.²⁶ This regulation became an opportunity for some: *soju* distillers that used potato or sweet potato, such as Jinro, stood out in the market starting in the 1960s, while brewers with longer histories struggled with the regulations.²⁷

Meanwhile, since the mid-1960s, a whole new wheat product had begun to entice South Koreans for its convenience, affordability, and, most importantly, familiar taste. Instant ramen, a postwar Japanese invention, was introduced into South Korea in 1963. Samyang Foods imported two ramen-making machines from Myojo Foods in Japan to produce the first instant ramen in South Korea. The company soon changed the original clear, salty chicken soup to a thick, spicy beef soup to appeal to Korean consumers.²⁸ As this change turned out to be a success, Samyang secured an important share of the South Korean food market.

It took longer for bread to claim its place at the South Korean dining table. As with the Japanese, the breads first experienced by Koreans were “hybrids,” such as bread filled with red bean paste or sweet butter cream. The state’s consistent support for *bunsik*, however, gradually opened up new space for South Korean bakers. As snacks at first, and subsequently as substitutes for regular meals, bread was provisioned to soldiers, public officers, and schoolchildren, the last of whom developed a particular taste for bread. As a result, by the mid-1970s, “Koreanized” bread could claim itself as a relevant, albeit not the best, choice for a meal.

This slow but steady growth of wheat consumption was supported by nutritional science, in a similar manner as in the 1920 and 1930s. After 1945, home economists in Korea, who had been educated and trained under the Japanese “*kateigaku*” tradition, had to adapt to another tradition: American home economics. In that sense, “*gajeonghak*” in South Korea was a mixture of Japanese and American home economics.

Home economists released reports on the dietetic superiority of *honsik* or *bunsik*, and these were repeatedly cited by mass media and school textbooks. The long-lasting meme in East Asia that Westerners are physically

superior—taller and stronger than Asians because they live on wheat—also survived in South Korea throughout the era of rapid industrialization, and legitimized the increased consumption of the foreign grain.²⁹

The “Green Revolution in Korea” and the Unexpected Demise of Barley

Despite all of these efforts by the state to promote other grains and tarnish the prestige of rice, South Koreans’ deep-rooted desire for rice could not be mitigated until it was satisfied. In other words, one could not think about “decline” before one reached the peak.

The Self-Sufficiency of Rice, and Its Cost

The “Green Revolution” in South Korea, initiated in 1973 with the promotion of the new high-yielding rice variety “Tongil” (reunification), resulted in a remarkable increase in rice production, which nearly doubled in a decade. In the autumn of 1977, president Park Chung Hee proudly announced the accomplishment of the Green Revolution, citing that the gross domestic production of rice had exceeded domestic demand.³⁰

The Green Revolution did not immediately lead to a surplus of rice, however. The increased production was readily absorbed by consumers, who had to suppress their demand owing to various state restrictions. The result was that the growth of consumption sometimes surpassed that of production, even in the middle of the Green Revolution. For example, the growth rate of annual rice consumption per capita in 1974 was 6.5 percent, while that of the domestic rice production was only 5.5 percent. The government tried to harness the exploding demand by implementing even stricter regulations. In 1974, it was announced that the use of rice as a snack ingredient was banned, and rice cake (*tteok*) had to contain at least 30 percent of other grains. The recommended husking rate was also lowered to reduce the possible loss of rice grain.³¹ Schoolteachers examining students’ lunchboxes every day to confirm that every student’s meal contained 30 percent of other grains became a familiar scene in South Korean schools.³²

With the growing confidence in the success of the Green Revolution, however, the Park administration gradually loosened regulations. When

the administration claimed that the Green Revolution had been accomplished, it had to make its people feel the difference. More importantly, Park's Yushin dictatorship was seriously challenged by the democratic movement in the late 1970s, and a general election was scheduled in 1978.³³ Park's proud declaration of the success of the Green Revolution, followed by the liberalization of rice-wine brewing in December 1977, should be understood in this political context.

The Unnoticed and Unworried Decline in Barley Production

The politicized success of the Green Revolution resulted in an unexpected consequence: the demise of barley as the major crop. The Tongil rice, the agent of the Green Revolution, was a hybrid of the temperate "japonica" and tropical "indica" varieties. Although its yield was substantially higher than existing varieties in South Korea, its tropical genes required that it be sown and harvested later than older varieties. It became a problem for farmers who rotated rice and barley for double cropping, because the late harvest of Tongil could cause them to miss the right time to sow barley.³⁴ Interestingly, however, this was not a serious controversy: most farmers simply accepted Tongil rice and gave up barley cultivation without hesitation. Although barley had long been considered the second-most-important crop for Koreans, it was out of question for Korean farmers to choose between rice and barley. As long as Tongil could guarantee increased production of rice, and to the extent that it could compensate for the loss of barley, farmers did not stick to double cropping. Urban consumers did not stick to barley either, as they had access to rice in the market. In short, barley never overcame its status as an inferior substitute for rice, and was easily abandoned by both producers and consumers.

The cultivation of barley did not recover its geographical area, or its significance, even after Tongil-brand rice was abandoned by farmers due to environmental problems in the early 1980s. Although the Office of Rural Development ambitiously announced in late 1977 that its next goal, after achieving self-sufficiency in rice, would be self-sufficiency in barley and wheat, it was apparent that the goal could not be achieved. Owing to the impetus of the state system, by the mid-1980s the *honsik* and *bunsik* movement was sustained in rather perfunctory manner, and did not help barley to regain its popularity. Both the demand and the supply of barley

had declined sharply since the late 1970s. The status of barley also changed, from the second-most-important staple crop to an ingredient in nostalgic, and even exotic, snacks. Currently, the majority of barley supply for food is imported from China, a fact that tarnishes its value as the staple crop and illustrates the “moral” nature of grains as defined by their origin. Other demands, mainly from the beer industry, are also met by barley imported from Europe.

Wheat as the New “Second Staple”

While barley lost popularity, wheat became more and more important, far from being abandoned. According to recent statistics, the annual consumption of wheat per capita in South Korea reached 35 kilograms (in 2011), half that of rice (69.8 kilograms in 2012). Compared with the peak in 1982 (156.2 kilograms), the consumption of rice dropped by half within a generation, and a substantial portion of the decrease accounted for the increase in wheat consumption.³⁵ Now it might no longer be an exaggeration to call wheat the “second staple crop” of South Korea.

Reinterpretation of Wheat as the Prestigious Western Foodstuff

The phenomenon of the “rise of wheat” might be explained by answering two questions: Why has the demand for rice declined? And how could wheat, not any other grain, fill the void? First, the reported “success” of the Green Revolution allowed people to consume as much rice as they wished. Although there were controversies about the quality of Tongil rice, it could guarantee a dramatic leap in quantity, combined with strong state initiatives. The result was a peak in rice consumption in 1982. Once rice reached its peak, however, several forces pulled it down: South Korea’s population growth slowed down; rapid economic growth enabled people to diversify their diet by consuming vegetables, fruits, and dairy products; and economic growth and urbanization encouraged people to eat out more often than before. With these factors combined, domestic rice consumption has declined rapidly since the early 1980s, from 156 kilograms (per year per capita) in 1982 to 120 in 1990, 94 in 2000, and eventually below 70 in 2012.

*(13.8 in 1965)

Annual consumption (per capita) of rice, wheat, and barley in South Korea, 1970–2016. Drawn by the author, based on the statistics from “Grain Consumption, per Capita, per Year, 1963–2016,” Korean Statistical Information Service, <http://kosis.kr>.

The second reason for the rise of wheat was the popularization of Western food culture. Although “first-generation” *bunsik* such as instant ramen and *jajangmyeon* had secured their places in South Korean food culture by the early 1970s, *bunsik* was still regarded as the lesser substitute for a “real” meal: rice and side dishes. Understandably, *bunsik* was substantially cheaper than a meal with rice, and was generally considered a light snack, although it had as many or more calories than a rice meal. Even today, Koreans tend to believe that they feel hungry again sooner when they have *bunsik* for a regular meal.

This image of *bunsik* began to change with the introduction of “second-generation” *bunsik*, although those Western items—pizza, pasta, burgers, cake, and “authentic” bread—were not usually referred to by the generic term “*bunsik*” but rather by name.

By the mid-1980s, only a limited number of people who had the privilege to experience Western life had developed a taste for Western food, while the majority of South Koreans had no palate for it. The neighborhoods of American military camps and upscale hotels for foreigners were among the few places where Western food was available. For example, the first Pizza Hut in South Korea opened in Itaewon, in the vicinity of the Yongsan army base, in 1985.³⁶ The Seoul Olympic Games in 1988 accelerated the liberalization of Western food items in South Korea. To attract more foreign travelers to Seoul, the government eventually opened the South Korean market to multinational food franchises such as

McDonald's (whose first outlet appeared in Seoul in 1989). In addition, overseas travel by South Koreans was liberalized in 1989, enabling the younger generation of South Koreans to experience American and European food in their youth.

As a result of the growing demand for "Western" wheat products, total consumption of wheat grew rapidly, from fourteen kilograms (per year per capita) in 1965 to twenty-six kilograms in 1970, and eventually to thirty-five in 2011. From the beginning, second-generation wheat foods have been received as "Western food" and not as an "inferior" subcategory within Korean food. They were different from first-generation *bunsik* not only in that they were considered more "authentic" but also because they were sold at higher prices than Korean meals. While an ordinary South Korean consumer today might think it unacceptable to pay more for a bowl of Korean-style thick wheat noodles (*kalguksu*) than a regular rice meal, he or she might not be able to resist paying double the price for a dish of pasta.

Ambivalence about the Foreignness of Wheat

The foreignness of wheat is not entirely associated with its cultural halo. As long as it is "foreign," wheat will always be associated with fear as well. Especially when it comes to the issues of risk and safety, the foreignness of a foodstuff is easily interpreted as being synonymous with lack of information and control on the producer's side. The skepticism about imported grains again reinforces the hierarchical status of rice (which is currently troubled by surplus production) as the prime staple of Koreans.

Since the early 1980s, the organic farming movement has gained momentum in South Korea, in collaboration with co-ops in the big cities. Co-op activists recruited new members by acquaintance, and the fear of imported or industrialized food, "tainted with chemicals," was the main rhetoric of recruitment. One of the common tactics for recruiting new members was to demonstrate the potential risk of imported wheat flour. A typical demonstration would go as follows: Co-op activists would prepare two glass jars, one filled with imported flour, and the other with domestic flour. Then they would put several worms into the jars and seal them, and show that the worms in the jar with domestic flour survived longer than the other. This example illustrates how the foreignness of wheat was easily interpreted as a risk. In fact, by the late 1980s, middle-class educated

consumers became well aware of the pesticide issue, and many became supporters of the co-op and organic farming movements.³⁷ Until today, South Korean consumers have been very receptive of any news of safety issues with imported foodstuffs, and wheat is always on top of the list of foods to be monitored. Recent issues—including debates about the safety of “preharvest” treatments with glyphosate, as well as celiac disease and the “gluten-free” diet, despite the fact that there are very few celiac disease patients among Koreans—are rapidly reported and widely shared as well.

Echoing these safety concerns, some Korean farmers and activists initiated the “Reviving National Wheat Movement,” aiming at the search, study, preservation, and cultivation of native wheat varieties, as well as development and propagation of new recipes that would suit these “Korean” varieties well.³⁸ Although the movement has gained wide acknowledgment from the public, its ultimate goal is not quite clear: What to revive, and to what extent? Should the native varieties be revived to meet all domestic demands? Considering the dramatic change in the status of wheat in modern Korea, the meaning of the phrase “all domestic demands” could have enormously different interpretations. If it means “all domestic demands” in the premodern era, when wheat consumption was minimal, then the Reviving National Wheat Movement could actually achieve its goal, but it might not be relevant as the goal for a social movement. However, if it means “all domestic demands” of the present day, the goal is obviously unachievable. Currently, it is estimated that native varieties or domestically grown wheat accounts for only around 2 percent of the total wheat supply in South Korea.³⁹

This issue of foreignness is not exclusive to wheat. “Foreign rice” could be an issue as well, although it is not yet a prominent one. South Korea is supposed to import a specific amount of rice every year as a part of the General Agreement on Tariffs and Trade negotiation. To mitigate public fear and anger against foreign rice, the South Korean government has so far sold foreign rice only to the food industry, not to individual consumers. Still, importation will soon exceed industry demand.⁴⁰ Despite widespread concerns—whether grounded or not—of “low-quality and questionable” foreign rice, the South Korean government has just begun to persuade people of the benefit of gradually opening the rice market to individual consumers. Although it is hard to predict at this stage, the debate on foreign rice will be different from that on foreign wheat in a number of ways.

Another Unnoticed Foreign Player

In addition to rice, barley, and wheat, there is another “foreign” player, often unseen, in the contemporary South Korean diet: maize. Maize does not look like a staple food for South Koreans, as it is for Mexicans. Nevertheless, national statistics have shown that the consumption of maize in South Korea is greater than twice that of wheat, meaning that maize, not rice, is actually the most-consumed cereal in South Korea, in terms of gross national consumption.

Maize is not visible to individual consumers, however, because the overwhelming majority of maize is consumed as feed for livestock. To realize the growing importance of this hidden king of cereal, it is helpful to consider the rising consumption of meat and dairy products in South Korea: from 1980 to 2010, the per capita annual consumption of meat products has tripled, from 13.9 kilograms to 38.8 kilograms.⁴¹

During the 1970s, one of the statistical paradoxes was that of two crossing indices of self-sufficiency. While the state enthusiastically celebrated that it was achieving self-sufficiency in rice, the self-sufficiency of all cereals—rice, barley, wheat, maize, and beans combined—was actually decreasing, to as low as 23 percent in 2013.⁴² The key to making sense of this paradox lies, again, in maize: the import of maize was increasing to meet the growing demand for meat and dairy products.

Currently, in the international food market, South Korea is the second-largest importer of maize after Japan.⁴³ As the domestic production of maize accounts for only around 1 percent of demand, the self-sufficiency rate of the entire cereal is expected to remain low in the near future.

“Good Grain” and “Bad Grain”?

Although rice remains the prime cereal for Koreans, its importance in everyday life has decreased remarkably since the early 1980s. This downturn is even more surprising considering that South Korea in the late 1970s was overwhelmed by enthusiasm for the Green Revolution in rice. However, “foreign” wheat, a grain that was not a major food crop on the Korean Peninsula until the early twentieth century, could eventually become the second-most-important grain in Korean food culture by the end of the century. With ongoing economic growth and increasing encounters with

Western culture, this new wave of wheat products could create a new market for middle- and high-end consumers. Meanwhile, barley, once the second-most-important crop for Koreans, has failed to overcome its stigma as a lesser substitute, and has gradually lost its place in South Koreans' everyday diet. Beans, potatoes, and other "minor" crops have become marginal as well.

The increasing consumption of wheat correlated with a decrease in rice consumption, to the extent that beginning in the late 1990s the South Korean state had to advertise the nutritional value of rice to promote its consumption. An observer in the 2010s in South Korea noticed clashes between the two different sets of values, or moralities, of grain. On one hand, rice is associated with historical and cultural values. Its prime status as Koreans' staple is justified in the name of science, which emphasizes the safety, reliability, and nutritional value of rice. On the other hand, this advocacy of rice illustrates that rice is facing serious challenges, because until the early 1980s there had been no need to "prove" the superiority of rice. Discourses on the virtue of rice were introduced only after the consumption of rice had decreased significantly, in contrast to wheat, which was newly associated with yearnings for a Western lifestyle. Meanwhile, barley, once the second-most-important grain for Koreans, quietly faded into oblivion, as it failed to refashion itself from an inferior substitute for rice into an attractive foodstuff associated with new values. It is also noteworthy that "recommendations" put forth by today's nutritional science are completely opposite to those of the 1960s: what to encourage and what to discourage in terms of nutrition is not determined by "pure" scientific reasoning but by such values as socioeconomic need and cultural identity.

Notes

1. Cheong Deok Geun, "Hayan ibab eun dog i doebnida" (Polished white rice will be poison), *Donga Ilbo*, March 12, 1935. When the titles of cited materials are written in romanized Korean, with English translation in parentheses, they are translated by the author. When only English titles are shown, the translations have been provided by the original author of the cited materials.

2. "Hankookin eui daepyo eneoji" (The energy of Koreans), TV commercial, broadcast in 2005, accessed October 10, 2016, archived at <https://www.ad.co.kr>.

3. Park Tae Shik and Lee Yung Jo, "A Discussion on the Origin of Early Domesticated Rice in Korea Based on Unhulled Rice (*Oryza sativa* L.) Grains (15,000BP) Excavated from the Sorori Site, *Korean Journal of Agricultural History* 3, no. 2 (2004): 119–132 (in Korean).

4. Kim Il-sung, *Theses on the Socialist Rural Question in Our Country* (Pyongyang: Worker's Party of Korea Publishing House, 1964) (in Korean).

5. Cho Chang Hwan et al., "Origin, Dissemination and Utilization of Wheat Semi-dwarf Genes in Korea," *Korean Journal of Breeding* 12, no. 1 (1980): 1–12 (in Korean).

6. It is also said that the habit of eating noodles at a wedding or a birthday party is to pray for the longevity of the host, symbolized by the long shape of the noodle.

7. For a comprehensive history on beriberi and vitamin B, see Kenneth Carpenter, *Beriberi, White Rice, and Vitamin B: A Disease, a Cause and a Cure* (Berkeley: University of California Press, 2000).

8. Angela Ki Che Leung, "Weak Men and Barren Women: Framing Beriberi/Jiaoqi/Kakké in Modern East Asia, ca. 1830–1940," in *Gender, Health, and History in Modern East Asia*, ed. Angela Ki Che Leung and Izumi Nakayama (Hong Kong: Hong Kong University Press, 2017), 197–201.

9. Alexander R. Bay, "Beriberi, Military Medicine, and Medical Authority in Prewar Japan," *Japan Review* 20 (2008): 111–156.

10. For one example summarizing the status of academic research and commercialization of vitamins in Japan in the mid-1930s, see "Seimei no gensen wo rokuchya to shiitake ni midasu: Bitaminkai no seichi Suzuki Kenkyushitsu" (Seeking the source of life in green tea and shiitake mushrooms: The Suzuki Lab, the holy land of the world of vitamins), *Tokyo nichinichi shinbun*, January 28, 1936 (in Japanese)

11. Bay, "Beriberi," 117–121. In the case of prolonged deficiency, which would eventually lead to a fatal heart attack, a thiamine injection would be a cure. The thiamine shot therapy was developed in the 1930s. See Leung, "Weak Men and Barren Women," 215.

12. In contrast, modernization and urbanization in East Asia resulted in the formation of the working class, who were often young, deprived, malnourished, and therefore prone to beriberi. See Leung, "Weak Men and Barren Women," 207–208.

13. Yeo In-Sok, "A History of the Research Department of the Severance Union Medical College," *Korean Journal of Medical History* 13 (2004): 233–250 (in Korean).

14. Michael Worboys, "The Discovery of Colonial Malnutrition between the Wars," in *Imperial Medicine and Indigenous Societies*, ed. David Arnold (Manchester, UK: Manchester University Press, 1988), 208–225.

15. Municipal authorities "volunteered" to reduce the supply of polished white rice, which was indispensable for brewing. See, for example, "Imsi Gak Dojisa Hoeui Gaechoe: Hanhae Daechaek e Chijung (Provisional meeting of provincial governors: Focus on countermeasures against drought damage)," *Donga Ilbo*, November 2, 1939 (in Korean).

16. Among many, see, for example, Kozaburo Hirokawa, "Metabolism Affected by Change of Diet, from Prisoner's Diet (Mixed Cereals) to Cleaned Rice," *Journal of Medical College in Keijo* 1, no. 7 (1931): 359–383.

17. See, for example, "Sabaegman aegukban eul dongwon, jeolmi undong cheoljeo gido" (Four million mobilized as patriot cadres, for thorough implementation of rice-saving movement), *Donga Ilbo*, October 12, 1939.

18. Joo Young-ha, *Geurim sok eui eumsik, eumsik sok eui yeoksa* (Foods in pictures, history in foods) (Seoul: Sagyejeol, 2005), 214.

19. National Institute of Korean History, "Sikryang siksaenghwal yeonpyo, 1912–1945" (Chronological table of provisions and dietary habits, 1912–1945), Korean History Database, accessed May 15, 2016, <http://db.history.go.kr> (in Korean).

20. Park Wansuh, *Geu manteon shinga neun nuga da meogeosseulka* (Who ate up all the *shinga*?) (Seoul: Woogjin, 1992), 153.

21. Choi Jun Ho and Jeon Un Seong, "Migug ui 1950 nyeondae daehan, daeil wonjojeongchaeg ui bigyo: Hangug ui hyoyuljeogin ODA jeongchaeg eul wihayeo" (Comparative study on the 1950's aid policy from the United States to Korea and Japan), *Nongeopsa Yeongu* 8, no. 1 (2009): 167–202.

22. Kim Tae-Ho, "President's Rice vs. King's Rice: How the Memory of the Green Revolution in the 1970s Influenced the Consumer's Choice in South Korea's Rice Market," *Sarim* (Historical journal) 57 (2016): 40–41 (in Korean).

23. Ministry of Government Administration, "Migok sobi jeolyak e gwanhan beomgukmin undong jichim" (Guidance for the national movement for reducing the consumption of rice), 1962, article 118-1, file BA0084342, National Archives of Korea, Daejeon, South Korea.

24. Ministry of Government Administration, "Jeolmi undong silsi gyehoek" (Action plan for rice saving movement), 1968, article 37-1, file BA0084548, National Archives of Korea, Daejeon, South Korea.

25. For details of the enforced "movement" of *honsik* and *bunsik*, see Kong Jae-Wook, "'Honpunshik Changny-ö Undong' and the Change of Dietary Life under the Period of State-Mobilization System," *Economy and Society* 77 (2008): 107–138 (in Korean).

26. Ministry of Government Administration, "Yaktakju jejo e isseo ssal sayong geumji an" (Proposal for banning the use of rice in brewing clear and opaque rice wine) (1110), 1966, article 19-1, file BA0084479, National Archive of Korea, Daejeon, South Korea.

27. Ines Cho, "Moving beyond the Green Blur: A History of Soju," *JoongAng Daily* (Seoul), October 21, 2005.

28. Kim Hyeon Gil, "Ramyeon wangguk eui wang eun jangsu hadeoida: Hanguk ramyeon 52 nyeon eui yeoksa" (Long-living kings in the ramen kingdom: 52 years of ramen history in Korea), *Kookmin Ilbo*, September 4, 2015.

29. A similar obsession for wheat was shared universally in East Asia. One example is the advocacy of wheat as soldiers' ration by Feng Yuxiang, a warlord in northern China. See Seung-joon Lee, *Gourmets in the Land of Famine: The Culture and Politics of Rice in Modern Canton* (Stanford, CA: Stanford University Press, 2011), 169–174.

30. Kim In Hwan, *Hanguk eui noksaek hyeokmyeong: Byeol sinpumjong eui gaebal gwa bogeup* (The green revolution in Korea: Development and propagation of new rice), (Suwon, South Korea: Office of Rural Development, 1978), 169–171.

31. Kim Du Gyeom, "Ssal jeolyak, hoso eseo gangje ro" (Reducing rice consumption: From persuasion to enforcement), *JoongAng Daily*, December 6, 1974.

32. This enforcement actually faced strong criticism, even under the Yushin dictatorship in the mid-1970s; Kim Yong Jeong and Lee Kyu Seok, "Haksaeng dosirak honbunsik gwaing dansok: Seongjeok e banyeong, cheobeol kkaji" (Excessive regulations on *honsik* and *bunsik* with student's lunchbox: Even connected to grading and punishment), *Donga Ilbo*, June 12, 1976.

33. "Je shipdae chongseon gyeolgwa reul bogo" (On the result of the tenth general election), editorial, *Donga Ilbo*, December 13, 1978.

34. Larry L. Burmeister, *Research, Realpolitik, and Development in Korea: The State and the Green Revolution* (Boulder, CO: Westview Press, 1988), especially 55–60.

35. "Grain Consumption, per Capita, per Year, 1963–2015," Korean Statistical Information Service, accessed May 1, 2016, <http://kosis.kr> (in Korean).

36. Yang Yeong Chae, "Millyeo oneun 'Seoyang eui ipmat': Haembeogeo, doneot, . . . mi jeukseok sikipum Hanguk seo gakchukjeon" (Influx of the "Western taste": Hamburger, donut, . . . competition of American fast foods in Korea), *Donga Ilbo*, May 21, 1987.

37. Ahn Jae Seung, "Suip nongsanmul hongsu sok nongmin, sobija 'Uri Mil Sailligi Undong'" (In the midst of a flood of imported agricultural products, farmers and consumers collaborate on "reviving Korean wheat movement"), *Hankyoreh*, August 25, 1991.

38. See the web site of Uri Mil Salligi Undong Bonbu (Headquarters of the "Revive Korean wheat movement"), accessed September 1, 2016, <http://woorimil.or.kr> (in Korean).

39. Ko Seongjin, "Haemada mil suip 1 jo, guksan jageupryul eun 1%" (1 trillion Korean won of imported wheat every year, only 1 percent of self-sufficiency rate), *Hanguk Nongeomin Shinmun* (Korea newspaper for farmers and fishers), February 6, 2015.

40. Lee Byeong Seong, Kim Kyeong Uk, and Ko Seongjin, "Ssal eui mirae (1): 20 nyeon gan byeo jaebae myeonjeok 25 an *ha* sarajyeo" (Future of rice [1]: 250,000 hectares of rice cultivation area disappeared in the last twenty years), *Hanguk Nongeomin Shinmun*, January 1, 2016.

41. "Grain Consumption, per Capita, per Year, 1963–2015."

42. "Food Self-Sufficiency (Sileage Included)," Gukka Jipyo Chegye (National Index System), accessed September 1, 2016, <http://index.go.kr> (in Korean).

43. Kwon Jae Hyun, "Hanguk, suip oksusu 75% reul saryoro" (75 percent of imported maize in Korea is for sileage), *Kyunghyang Shinmun*, August 22, 2012.