The Artifice of Seasonality in Japan: Discursive Narratives of Temporal Value

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Abstract

The concept of seasonality is both quietly and publicly discursive, with everyday consumers referring artlessly to seasons for consumption and seasons for production in the same terms, and producers exploiting these expectations to expand seasons for commercial reasons. Seasons are nationalized, both to frame cultural identity and to create the foundation for consumptive activities, such as festivals, holidays, and regional food. In this way, seasonality can be constitutive of both cultural and economic value, with each sustaining the other endogenously. The consequence is a concept of seasonality that is both conceptually stuffed with expedient markers of consumption and production, but also hollow, lacking an anchor in the natural phenomena, such as agricultural cycles. We argue that this artifice, the disembedding of seasonality from environmental phenomena, is facilitated by two processes: the engagement of capital to expand, change or discipline agricultural cycles; and the elaboration of seasonality 'labeling' through the converging interests of marketers, tourism promoters, and governments. The success of these processes can be seen in the enduring value of temporal notions of "seasonal", which consumers continue to respect and uphold in consumption valorization, even as its basis is quietly undermined by the processes above. We present the case of Japan, where conspicuous references to seasonality are widespread, and in which adherence to seasonality is considered superior to other regions. We find that the potential cognitive dissonance related to contradictions against environmental seasons is minimized by the mobilization of coercive marketing and propaganda that can normalize hyper-modern forms of seasonality.

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Introduction

In Japan, the concept of seasonality permeates every aspect of life, from food and fashion to art and literature. As Brendan Craine (2023) observes, "I am often told that Japan has four distinct seasons. Together, they are called 四季 (shiki) or, more poetically, 春夏秋冬 (shunkashūtō), an amalgam word that names each season in turn. I most often hear the seasons mentioned as being characteristic of Japan, as if there is no winter or summer beyond its borders. Usually, the fact is delivered with notes of boastfulness, the same way someone might mention that Japan has the world's third-highest gross domestic product. This pride in seasonality reflects a deeply ingrained cultural narrative that purports to shape temporal patterns of consumption, social activities, and even national identity. However, emergent conceptions of seasonality in modern Japan are by now also shaped by generational reproduction of marketing, tourism, and aesthetic self-identification that go beyond the adherence to climatic and agricultural seasons. This tension between traditional seasonal rhythms and the demands of modern capitalism forms the crux of our investigation.

The seasonality of food, in particular, serves as a socially constructed and valued means of orchestrating activities within cyclical rhythms. Seasonal food is nominally shaped by patterns of production and consumption influenced by weather and regional agricultural trends. In its primordial expression, the availability of food varies according to the Earth's inclination to the sun and the weather conditions that structure how humans interact with, and organize, their activities. However, food availability follows curves, not discrete seasons, and has thus always been marked by certain forms of social and economic organization associated with the acceleration and deceleration of those curves in a given regional unit (often, within the boundaries of a nation-state). There are qualitative and economic advantages for humans who can anticipate and/or modulate these fluctuations, allowing for more precise marketing, logistical efficiency, and privileged entry for producers into less saturated market periods; but there are also hindrances presented by unexpected natural conditions (weather, disease, pests), human conditions (storage, transport, retailer preferences), not to mention the perishability of food (Bernard de Raymond, 2016, p. 4). While humans have not been able to engage technology to overcome natural conditions completely (as predicted by Mann and Dickinson, 1978), many natural obstacles associated with soil nutrients, water availability, temperature, and preservation, among others, have been mitigated through adjustments to the seasons.

The prospect that consumers may have normalized technology-driven "interference" in the seasonal availability of fresh foods through activities such as greenhouse cultivation, high-tech storage, chemical preservation, and transport from other climatic zones can be worrisome for entities promoting regional rural or agricultural development. For example, the United Kingdom's Department for Environment, Food and Rural Affairs (DEFRA) is apparently worried enough about the dilution of the term "seasonal" that they feel obliged to explicitly inform survey takers that "seasonal food" *links the production season to local consumption* (Gotow *et al.*, 2022). In this paper, we argue that, despite attempts to re-anchor seasonality alongside static conceptions of cyclical natural rhythms, there are as many seasons as there are different types of markets or conceptions of consumption—and that these considerations may have trumped climatic cycles for many or most urban consumers. This process is not necessarily diminished by the supposed emphasis on seasons in popular culture or consciousness. Indeed, Japan's historic calendars claim to have up to 72 micro-seasons, in which agricultural and food adjustments feature prominently (Ishihara, 2011). However, a corollary of our argument is that the depth of such seasonal associations can also be exploited more comprehensively in marketing, leading people to be exposed to yet more artificially seasonal discourse.

In this paper, we observe that many representations of the "seasons" were prompted by, or have their origin in, productive or capitalistic considerations. This follows the trend in which economic actors capitalize on tradition to add value to their production (Boltanski and Esquerre, 2017). To this end, we examine how actors try to free-ride on the cultural value of the season even as they use technological upgrades to free themselves from the biological or ecological restrictions associated with seasons. If Japan boasts of its deeper connection to climatic seasonality, apparently superior to the banality of marketing found in other countries, on what basis are the seasons treated as more sacred/respected? We explore how technology, including that used for agricultural upgrading, packaging, media representation, and government proclamations, can be leveraged to take advantage of the cultural value of seasonality, posing a secondary question: How are seasonal products and seasonal consumption constructed to consider historical ecological foundations while taking advantage of the economic opportunities associated with the value of seasonality?

We begin this paper by contextualizing seasonality in Japan, including its insertion into language, ceremony, agriculture, and cuisine by a variety of actors into the modern era. We then elaborate a theoretical framework for unpacking how seasonality has been valorized in Japan, how capital upgrades seek to take advantage of this value, and how the associated changes are labeled and integrated into societal norms. In the next part, we describe how we assembled the insights and data that were eventually engaged in this paper, including incidental observations from other research, casual observations as long-time residents, and more recent interviews and literature review. Thereafter, we share our findings organized into thematic categories that consider the proximity of biological seasons and degree of technological intervention into seasonality. In the ensuing discussion section, we relate these thematic categories to the various components of the theoretical framework. Finally, we conclude by evaluating the scope and consequences of the seasonality discourse in Japan and question if there are limits to the coherence of this discourse if the extent of artifice continues.

Background

The explicit ceremonialization of certain seasons in Japan has a long historical context, with the celebration of spring blossoms in Japan dating back to roughly 712 CE (Moriuchi and Basil, 2019). Over time, these celebrations have become a source of national identity, with cherry blossom viewing, or *hanami*, having become so all-encompassing in tourism, media, and bureaucratic life that it has been referred to as a "total social phenomenon" (Ohnuki-Tierney, 1998, p. 210). The importance of seasonality extends beyond mere observation of natural phenomena, such as tree blossoms or agricultural cycles. It has become intricately linked with various aspects of Japanese life, including the start of the fiscal and school years. This integration of seasonality into social and economic structures is an indicator of how Japanese society collectively marks the passage of time at the national level in a way that goes beyond the acknowledgment of the natural phenomenon.

However, the concept of seasonality in Japan is not static, and indeed, as we will observe in this paper, seasonal tropes can be stretched so much as to become banal. As Lindström (2007) observes, "Anything from cup noodles to bullet trains can be advertised with some 'seasonal spice.'" The temptation to ascribe mundane activities to a season, or to find new ways to commercialize widely celebrated seasons, raises questions about the underlying respect and understanding of seasonal experiences, with the cynicism of many observers matching the perceived exploitation of a cultural framework for economic gain (Lindström, 2007; Craine, 2023; Hobson, 2023). Other authors, however, view the daily normalization of seasonality in domestic life as deeply rooted in tradition and nature despite the steady increase of seasonal marketing campaigns (Daniels, 2009).

The emphasis on seasonality in Japan extends deeply into food culture, and its place in this cultural construct is historically well-documented. Bestor and Lyon Bestor (2011) argue that, "Even in a globalized food system that delivers products from around the world without much regard for the month of the year, Japanese food

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culture places great emphasis on seasons." They refer to long-held beliefs about freshness, ripeness, and availability, but also to psychological markers observing the passage of time. This is exemplified by the concept of *hatsumono*, or "first things," which refers to the first products of a season that are eagerly anticipated by consumers (Bestor and Lyon-Bestor, 2011). The system of *kigo*, or seasonal words, which developed during the Edo period to designate food, and now extends to other aspects of social life, "not only reflects an awareness of nature but also serves as a means to organize individual and social life throughout the year, providing seasonally coded markers" (Shirane, 2017, p. 217). The unique vocabulary designated for such terms demonstrates how deeply seasonality is embedded in Japanese historical and cultural practice. Some of the most commonplace examples can be seen in Table 1.

Table 1. Japanese seasonality terminology and cultural context (authors' elaboration).

Japanese Term	English	Description & Cultural Context
四季 Shiki	Four seasons	The traditional division of the year into four distinct seasons, deeply embedded in Japanese culture, art, and cuisine.
春夏秋冬 Shunkashûtô	Spring, summer, autumn, winter	The cyclical progression of the four seasons; represents the natural order and eternal cycle of life, death, and renewal in Japanese thought.
花見 Hanami	Cherry blossom viewing	Traditional practice of viewing and celebrating cherry blossoms; embodies seasonal appreciation and collective participation in nature's cycles.
季節感 Kisetsukan	Seasonal awareness	Cultural sensitivity to seasonal changes; the appreciation of seasonality in daily life, food, decoration, and cultural practices.
走り Hashiri	Coming into season	First products of the season; eagerly anticipated and often commanding premium prices. Literally "running" - signifying products that come early.
旬 Shun	Peak season	The prime time when foods are at their most flavorful, fresh, and abundant. Central concept in Japanese cuisine and seasonal appreciation.
名残 Nagori	End of season	Last products as a season fades; often cherished as the final taste of a departing season. Literally "remnant" or "vestige" of a season.
季語 Kigo	Seasonal reference words	Essential words or phrases in haiku poetry that indicate specific seasons; codified seasonal associations in Japanese literature.

However, this strong cultural emphasis on seasonality stands in contrast to the realities of modern food production and distribution. Improvements in transportation, the shortening of consumption circuits, and advances in preservation technologies in the 20th century have accelerated strategies for year-round supply within the global agrifood system. In contexts such as the United States, the artifice of seasonality might long have bifurcated between actors who view it primarily as a marketing opportunity (Spence, 2021), and those who view it as a value marker for realizing food systems sustainability (Vargas *et al.*, 2021; Boon and Schifferstein, 2022; Régnier *et al.*, 2022). Regions around the world now specialize in the production of year-

round foodstuffs according to seasons indexed to profitability rather than environmental conditions (Régnier *et al.*, 2022). Here, seasonality is negotiated both by producers and consumers, but also mediated by various agents, such as retailers, tourism agencies, and even governments (Shove, Trentmann and Wilk, 2009). The extent to which the capitalistic logic of temporal availability, hyper-consumption, and collective ritual prompts the performativity, or artifice, of seasonality is the preoccupation of the ensuing analysis.

Theoretical Framework

Our framework for understanding the artifice of seasonality in Japan draws on several complementary sociological perspectives. At its foundation is Benedict Anderson's (2006) concept of "imagined communities," which helps explain how seasonality functions as a shared cultural narrative that binds Japanese society together. Anderson argued that nations are socially constructed communities, imagined by the people who perceive themselves as part of that group. He describes fellow citizens' routines as "acts [...] performed at the same clocked, calendrical time, but by actors who may be largely unaware of one another," (p. 24), a concept that aptly captures how seasonal events and rituals in Japan create a shared national experience. In the Japanese context, the idea of distinct seasons and their associated rituals and foods serves as a powerful cultural bond, echoing what Durkheim described as collective representations that reinforce social cohesion (Durkheim, 1995 [1912]). What is interesting here is the instrumentalization of this calendrical bond in explicit ways, such as when the Japanese government emphasizes this shared seasonal experience for various purposes, from promoting tourism to reinforcing national identity. The pervasive discourse around seasonality in Japan—from poetry to advertising to everyday conversation—acts as a form of national myth-making, constructing an idealized vision of Japanese culture attuned to nature's rhythms.

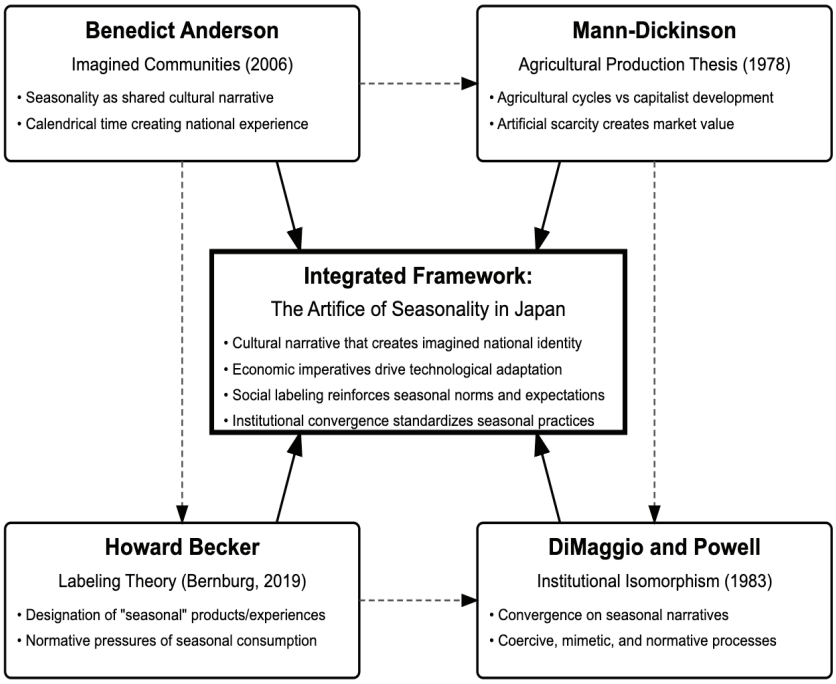
However, this attunement to seasonal cycles must be considered as endogenous, with the shared timeline of experience, or coherence of the experience, increasingly being transformed by the expansion of capital intensive technologies that adjust the timing or duration of seasons. The Mann-Dickinson (1978) thesis provides insight into how this cultural emphasis on seasonality intersects with economic imperatives in the agri-food sector. Mann and Dickinson argued that certain characteristics of agricultural production, such as the reliance on agricultural cycles/timing that are not aligned with labor markets, create obstacles for capitalist development. In the Japanese context, where labor is scarce and production cannot easily be mechanized due to the lack of flat arable land, the emphasis on seasonal foods can be seen as a way to overcome some of these obstacles by creating artificial scarcity and higher market values for "seasonal" products. This is achieved by engaging capital to upgrade technologies (greenhouses, new agri-chemicals, cold storage, etc.) that allow for the production of relatively more high-value seasonal products. This leads to a further subordination of agriculture to market-driven logics, even as it paradoxically implicates a cultural narrative of attunement to nature and patrimony. An example of this can be seen in how agricultural producers, to conform with market fluctuations for high-value early or late-season consumption of fruits and vegetables, are compelled to extend the season through capital-intensive technologies. This process surreptitiously revises the natural season to which the consumption supposedly refers, reducing the coherence between the historical characterizations of seasonality and the modern timeline of consumption.

To preempt or justify apparent discordance between pre-existing notions of seasonality and the inflated availability of agri-food products achieved through capital upgrades, seasonality can be imposed through designations, particularly marketing. To make sense of this, we engage Howard Becker's labeling theory (as explained in Bernburg, 2019) once individuals are labeled as deviants, especially if they are labeled by criminal justice agents (which happens disproportionally to members of disadvantaged social groups). While Becker originally applied this concept to designating forms of deviance, we find that the legitimation effect of labeling products or experiences as "seasonal" inheres in many of the same precepts. It helps, for example, to understand how certain foods, practices, and experiences can become labeled as quintessentially "seasonal" in Japan, allowing different normative or emotive experiences of consumption. Once established, these labels

take on a self-fulfilling quality: the designation of a food as "seasonal" increases its cultural cachet and market value, which in turn reinforces its seasonal status. This process can become coercive, with those consuming or participating out of season viewed as deviant. For example, eating *oden* (simmered radish and fish cakes) in summer or *ayu* (grilled trout) in winter may be seen as inappropriate seasonal transgression. This labeling process, accumulated among many products and experiences, amplifies the cultural value of seasonality in general and contributes to hegemonic representations of Japan as a seasonal-oriented country (Craine, 2023).

The phenomenon of institutional isomorphism, first theorized by DiMaggio and Powell (1983) and discussed by Beckert (2010), helps explain how various organizations in Japanese society—from agricultural cooperatives and producer associations to retail chains and media corporations—converge on similar seasonal practices (Beckert, 2010) Through coercive pressures (government regulations, cooperative standards for labeling, sectoral obligations to harvest at certain times), mimetic processes (producers copying successful "seasonal" marketing strategies or technological leaps), and normative influences (industry associations dictating best practices), these organizations across increasingly similar approaches to seasonality. This pressure to align with shifting seasonal production and marketing may depend, much as Mann-Dickinson (1978) suggested, on the increasing technological and market economic dependencies, which have evolved in order to expand seasons or create novel seasons. This institutional convergence lends legitimacy to the concept of seasonality, further entrenching it in Japanese culture and economy. A compelling example of this isomorphism can be observed in railway stations across Japan. Despite being located in different latitudes with varying climatic conditions, these stations are required by corporate policies to strictly align their decorations, available food and gift products, and packaging with semi-official pronouncements about the entry of a new season. This uniform approach across geographically diverse locations demonstrates how institutional pressures lead to a standardized representation of seasonality.

Figure 1. Diagram of theoretical framework with corresponding authors (authors' elaboration)



Although somewhat heterogeneous in content and origin, we bring the above theoretical perspectives together as they illuminate more comprehensively how conceptions of seasonality can become anchored in production, consumption, and wider national discourse (see Figure 1). This helps us to explain and ground, rather than merely critique, some of the apparent seasonality paradoxes that are pointed out by authors like Daniels (2009), Bestor and Lyon-Bestor (2011), Craine (2023) and Hobson (2023). These theories, which

capture broader national discourses down to the particularities of agricultural investments also help us transcend the production vs. consumption seasonality dead-end of much previous research (Gotow *et al.*, 2022). Following this framework, in this paper we will argue that seasonality in Japan is constructed, reinforced, and leveraged by various social and economic actors using cultural narratives, economic imperatives, and institutional processes.

Methodology

Our study employs a meta-level approach, drawing primarily from long-term observations (as much as 8 years) as foreign residents of Japan who study heritage food products as part of other research projects. We reflect on primary data gathered in the process of studying marketing and certification of heritage food products, but often found ourselves stumbling over the theme of seasonality with meaningful regularity. Therefore, this paper encompasses insights and observations gathered unintentionally in Japan from 2017 until 2024, but also considers many ad-hoc discussions with researchers and policymakers at academic conferences, ceremonies, and other spontaneous events. As a consequence of the composition of the data, our main analytical approach is essentially a form of secondary qualitative data analysis (Ruggiano and Perry, 2019), in which pre-existing materials and observations are revisited, with a focus on how seasonality is constructed, marketed, and performed in contemporary Japan.

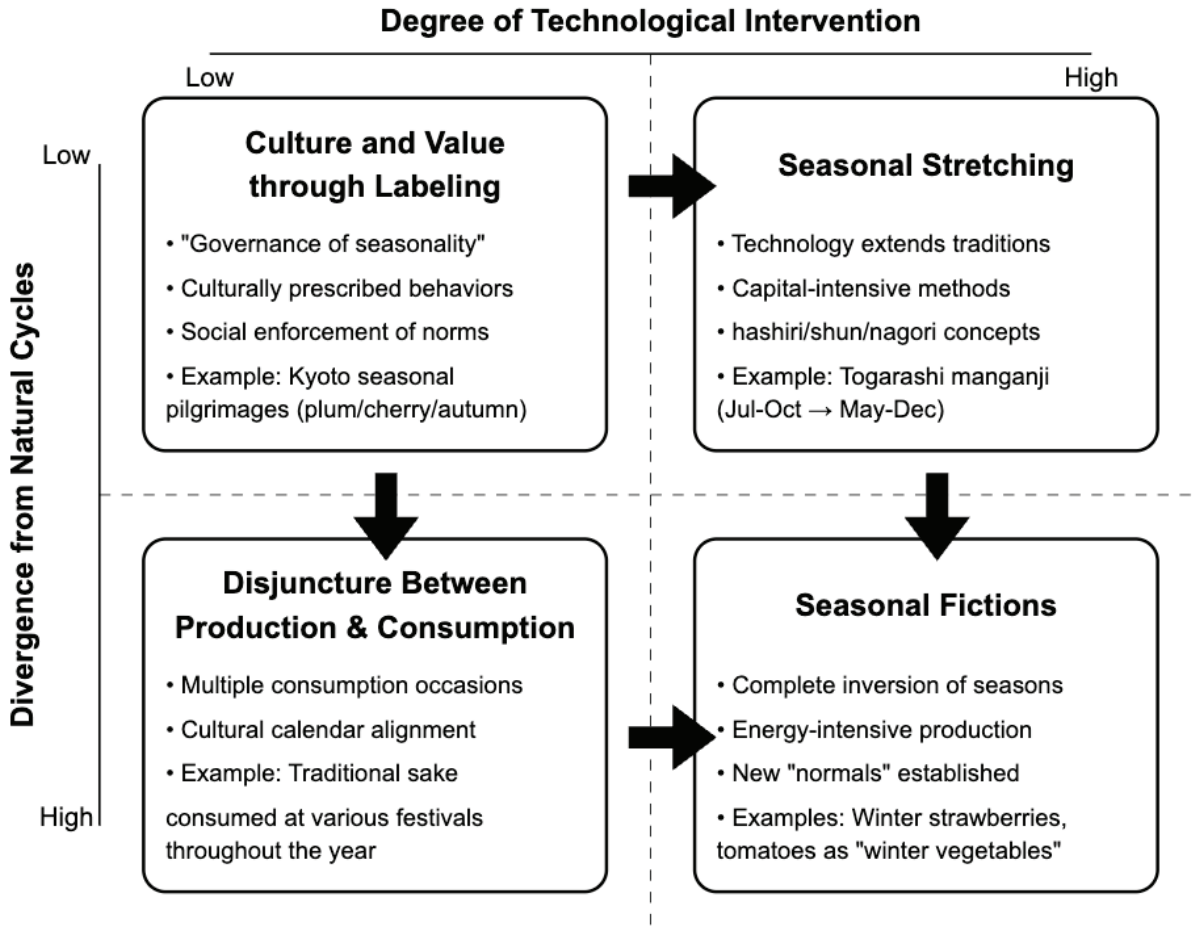
The primary method of data gathering for our agri-food case studies has been interviews with agricultural and food producers and food promoter organizations, including certification bodies and agricultural cooperatives. In the production areas of Kumamoto Prefecture (tomatoes) and Northern Kyoto (sweet green peppers), semi-structured interviews were conducted with agricultural growers, administrators of their cooperatives, as well as prefectural authorities responsible for agriculture (2021–2023). In dried persimmon (hoshigaki) regions of Noto Peninsula (Ishikawa Prefecture), Nagano Prefecture, and Nara Prefecture (2017–2018), semi-structured interviews were carried out with producers to understand unique production conditions, as well as with agricultural cooperative administrators to understand their standards-creation strategies. In sake-producing regions of Yamaguchi, Gunma, Hyogo, and Shiga Prefectures (2018–2023), open-ended interviews were conducted with Geographical Indication (GI) producer association leaders and selected producers focusing on terroir sake to evaluate views and practices for ecological or traditional production.

By re-analyzing past field notes, we were able to triangulate many of the observations about seasonality that we made in a more ad-hoc fashion over the years. And yet, while we did not specifically conduct research on seasonality, the theme is ever-present in the Japanese food system, and from a conceptual point of view, unavoidable. To enhance our analysis of past data and observations, we bring together reflections from commentators, researchers, and popular media. To illustrate some of the concepts we develop more deeply and provide an emic and etic view, we analyze a few case studies in greater depth. Nevertheless, because we consider our impressions and observations as casual consumers (as well as researchers), this paper should not be considered empirical in the conventional sense.

Findings

Our findings reveal an increasingly strained experience of seasonality in Japan, characterized by both adherence to traditional or natural seasonal rhythms and significant deviations or forms of artifice driven by economic, social, and technological factors. We have organized our findings into four main categories, although the examples and phenomena in each can overlap to some extent: Culture and Value through Labeling, Seasonal Stretching, Disjuncture Between Seasonal Production and Consumption, and Seasonal Fictions. A diagram showing how these findings relate to each other, as well as how they are situated in terms of the extent of technological intervention or divergence from natural ecological cycles, can be found in Figure 2.

Figure 2. Matrix analysis of research findings along two axes



Culture and Value through Labeling

The designation of certain activities or products as "seasonal" creates a powerful, and perhaps even coercive, cultural impulse in Japan. This process involves various organizations converging on a shared understanding of *the value of promoting seasonality*—profit, tourism promotion, and event promotion—often, although not necessarily, involving performative nods to adjacent weather, festivals, and agricultural cycles. Historical references and vocabulary that invoke seasonality are thus layered over by organizations such as municipal governments, park management departments, tourism boards, retail corporations, and temple administrations, who can now use modern techniques, which include marketing, product placement, and event programming, to "label" the season and trigger normative forms of consumption ("I should buy this because it's only in season now"). These organizations facilitate what might be called the "governance of seasonality," through which the emergence of a season is marked by official announcements, ticket sales, marketing campaigns, and the promotion of iconic marketing spaces all over the media. For example, for visitors and residents in Kyoto, the ume plum orchards of Kitano Tenmangu Shrine will attract pilgrims in March, the status of the Yoshino Sakura cherry blossoms will govern the news in April, the wisteria at Byodo-In will redirect attention in May, the fireflies will draw evening crowds to Arashiyama in June, and Shinto shrine lovers will be referred to Jingo-ji or Sanzen-In to enjoy autumn leaves in November. This governance extends to consumptive discipline, dictating how to see the blossoms or other attractions, how to take the best photos, and even what audible expressions of pleasure are encouraged/acceptable when observing beauty or consuming seasonal tastes (ideally, loud airy sighs). These practices effectively re-enact normative ideals of appreciation, reinforcing the cultural importance of seasonality and reproducing the performativity of these experiences.

Although tourism and sightseeing often represent the most visible and public forms of seasonal enjoyment,

private everyday seasonal consumption is also governed in many ways. As Inge Daniels (2009) notes,

> *The relationship between commerce and 'annual events' is not new in Japan, and records from the late eighteenth century, for example, mention special urban markets where rural sellers supplied materials and ingredients necessary for ritual events. In contemporary Japan, local businesses are suppliers of seasonal goods, which are generally accompanied by written explanations that elucidate the origin of the 'annual event' concerned as well as their 'proper' use. By consuming these commodities in the home, anyone can participate in and reap the benefits of 'annual events.' (p. 177)*

This labeling process can become indirectly coercive, with those eating or participating out of season viewed as deviant. For example, eating the winter stew *oden* in summer or swimming in the ocean after the publicly determined beach season has ended may be seen as inappropriate or even socially unacceptable. In contrast, purchasing something with seasonally appropriate packaging or conspicuous consumption of designated seasonal products can be viewed as socially desirable. This social pressure extends to producers themselves, who often express ambivalence about extending production beyond natural peaks. Here, there is also social desirability associated with ideal seasonal cultivation, even when it cannot always be reinforced.

> *When you analyze Manganji amatou's [a type of sweet green pepper protected under a GI] nutrients, July and August are when they're richest. So eating them during that time is best for the body. After that, the nutritional value drops, so ideally, I don't want to grow it outside of that window. But if I need to make a living, I might do it anyway—so that's where I'm torn. —Manganji amatou producer, Maizuru, Kyoto, 14 March 2023*

The ambivalence associated with non-peak season production is often balanced against economic constraints, as indicated above, but it is also regularly justified for creating a longer period for seasonal enjoyment, as we will discuss below.

Seasonal Stretching

The phenomenon we refer to as "seasonal stretching" demonstrates how producers engage capital-intensive technologies to extend production or retail seasons, primarily to maximize high-profit periods at the beginning and end of a season. This practice aligns with the Mann-Dickinson (1978) thesis, which posits that certain characteristics of agricultural production create obstacles for capitalist development in agriculture, but that overcoming these (such as growing longer and/or harvesting earlier) can often be economically advantageous due to high demand. Seasonal stretching has a natural basis, as seasons have always had some variability due to weather patterns. This natural variability has created a certain tolerance among consumers for stretched seasons, effectively giving license to artificial or technology-driven stretching. As Bernard de Raymond (2016, p. 4) observes, it is a common historical practice to "anticipate and control" seasonal fluctuations by compensating for natural conditions or perishability.

The case of *Manganji amatou* from the north of Kyoto Prefecture in Japan illustrates this phenomenon. Historically, *Manganji amatou* had a short production season from July to October, but technology has allowed this cycle to be stretched. As one producer who invested in hydroponic systems and computer-controlled environmental conditioning noted,

> *The harvest period has shifted. In an open field, you'd harvest from June to October. But now with greenhouses, we harvest from May to December. —Manganji amatou producer, Maizuru, Kyoto, 9 March 2023*

Manganji amatou are sold at high prices, supposedly because they are considered heirloom Kyoto vegetables (de St. Maurice, 2014), although extensive efforts have been put into modernizing and standardizing their production. Their overall appearance and organoleptic qualities have been made more consistent, both through the investment in greenhouses by producers, which allows for better control of the production period and visual appeal, as well as through genetic modifications to ensure they only rarely have a spicy taste. Not only has the heirloom variety been modified and greenhouses adopted, but production methods have also advanced significantly. Producers have been observed using greenhouses, automated feeding systems, heating,

and more rarely, hydroponic cultivation and LED lights to grow seedlings earlier, effectively extending the growing season on both sides. This has allowed the emergence of the term *fuyu manganji* (winter Manganji), which was occasionally mentioned by producers during interviews. This seasonal extension reflects how agricultural cooperatives and producer organizations collectively adopt similar technologies and practices, creating sector-wide standards for when to first market *hashiri* produce (coming into season), how to manage market saturation during the *shun* (peak season), and how to perpetuate sales of *nagori* (end-of-season) products. However, the burden on individual producers to keep up with technological advancements is also mirrored by a new challenge to time the market, as one producer noted,

> *Even if you think 'Oh, we can harvest a lot this week; the market won't be saturated,' everyone else thinks the same, so output doesn't change. Even if you try to shift timing, it's hard. —Manganji amatou producer, Maizuru, Kyoto, 14 March 2023*

Consumers often eagerly anticipate early-season products as harbingers of the coming season, or cherish late-season products as the last taste of a fading season. This consumer behavior relates to the labeling process discussed earlier, where seasonal products gain cultural cachet if their consumption is performed in the proper temporal context. As Bestor and Lyon-Bestor (2011, p. 14) observe,

> *For true connoisseurs of Japanese cuisine, the first products (of whatever kind) may be awaited with as much excitement as wine-lovers muster for the arrival of a new vintage from an exalted vintner.*

However, this stretching of seasons can lead to disorientation about traditional seasonal boundaries. The case of *hoshigaki* (dried persimmons), a typically winter product, demonstrates this well. New preservation technologies, including sulfuring, ultraviolet light treatment, and vacuum packaging, allow for extended consumption seasons; and with frozen goods, even diametrically off-seasonal consumption is possible (Oh *et al.*, 2018). The technological capacity to extend seasons can create disparities among producers and marginalize traditional farmers who wish to maintain natural cycles for taste and nutrition reasons. An older farmer who has not upgraded his drying technology observed,

> *In the past, we sped up drying persimmons creatively by raising our dry-houses to catch more wind, but then people started also buying huge fans, and now people like me won't enter the market at the best time because I can't afford to use a chamber drier. —Korogaki producer, Noto Peninsula, 17 November 2018*

The early arrival of *hoshigaki* can potentially confuse customers about what is truly in season, but marketing practices now also play a decisive role. Seasonal stretching can be achieved through psychological means: online pre-orders for products like *hoshigaki*, which are subsequently fulfilled at precise moments in the upcoming agricultural season, further compress the space between seasonal production and consumption, while also invoking a consistency in production that belies the historically unruly process of harvesting, peeling, drying, and delivering *hoshigaki*. A novel tax benefit program (*furusato nōzei*) to encourage purchases of regional products outside of the main urban areas has a fiscal year deadline on 31 December, effectively encouraging agricultural producers to expand pre-orders of agricultural products. This leads to a more pronounced temporal bifurcation of consumption into the moment of ordering and the moment of delivery, and a psychological expansion of the product awareness.

This seasonal stretching, while potentially confusing, ultimately gives consumers more time to perform seasonal consumption practices. It allows for a prolonged experience of seasonality to suit retail and consumer preferences, even as it diverges from natural rhythms. As Hobson (2023) observes, this stretching of seasons raises questions about "what it means for ways of living and feeling imprinted with nature's patterns," particularly in a society such as Japan that overtly prides itself on its connection to natural rhythms.

Disjuncture Between Seasonal Production and Consumption

The creation of multiple occasions for consumption, often disconnected from natural production cycles, is a common phenomenon that can be understood through a combination of Anderson's (2006) concept of

imagined communities, DiMaggio and Powell's (1983) concept of institutional isomorphism, and the engagement of capital observed in the Mann-Dickinson (1978) thesis. This disjuncture is particularly evident in the case of fermented products like wine and sake, where consumption is naturally separated from production of the raw material, but can appear in other cases such as *hoshigaki* (see above).

Wine production offers a clear example of this disjuncture. The playfulness with divergence between harvest and consumption seasons is more extreme than with most other products. Varieties like vin bourru (France), Federweisse (Germany), heurige (Austria), and Beaujolais Nouveau (France) are consumed more quickly after production, while other wines may be aged for years by producers before being aged again by consumers. This characteristic creates the possibility for multiple "seasons" for wine consumption throughout the year, often tied to cultural events set along the national calendar. Similarly, sake production was traditionally centered around the rice harvest and subsequent winter fermentation. This production period also corresponded to the availability of short-term labor in the agriculturally stagnant winter months, allowing breweries to scale up operations as winter approached and scale down as spring called workers back to the fields. "It's difficult to find skilled assistants willing to work year-round, as most of them have other jobs from April onward, or they live far away," observed a sake brewer in Numata, Gunma Prefecture (Interview, 16 September 2022). Nowadays, sake production has become increasingly decoupled from its historical seasonality. As many sake makers commented to us, rice for sake production may be freshest after the autumn harvest, but it is essentially durable and can be mobilized around the country at any time of year if one has the capacity to utilize it. However, only breweries with air-conditioned facilities and labor availability can effectively ferment sake outside of the colder months. With sufficient capital investment, year-round production is possible, creating a disjuncture between the traditional seasonal rhythm and market availability, and enabling novel temporal consumption patterns. Indeed, it can facilitate the development of fictional, or historically anomalous seasons (see below for more detail), such as autumn-themed nama (fresh) sake.

The disjuncture between seasonal production and consumption in the sake and wine industries offers a compelling illustration of how cultural practices, institutional pressures, and economic imperatives interact to reshape our experience of seasonality. The shared experience of consuming normatively "seasonal" fresh sake at specific times of the year, such as under the cherry blossoms in early spring, indicates what Anderson (2006, p. 26) describes as a "sociological organism moving calendrically through homogeneous, empty time." This temporal synchronization of consumption, aligned with historical production rhythms, reinforces cultural bonds through ritualized practices. However, by investing in refrigerated fermentation vessels, thereby creating multiple consumption occasions disconnected from production cycles, sake producers can effectively compensate for delayed returns on labor investment by selling sake more strategically throughout the year, and in particular by taking advantage of additional opportunities in the national calendar that are suitable for consumption (New Year's, autumn tourism, etc.). One of our interviews with a sake producer was cut short because, as he explained, "I'm embarrassed to say this, but even though it's September I actually have to get back to brewing because I decided to make an autumn sake for the first time this year" (Sake brewer, Hagi, Yamaguchi Prefecture, 9 September 2022). The ability to store and age these products allows for a more consistent application of labor throughout the year, reducing the seasonal nature of agricultural work. This strategy aligns with Mann and Dickinson's (1978) observation that capital (here, in the form of refrigerated fermentation facilities) seeks to overcome the natural delays in reaching the market with one's output.

As these practices spread through the industry, we see the institutional isomorphism described by DiMaggio and Powell (1983) at work. The widespread adoption of "seasonal" releases or special vintages for particular holidays demonstrates mimetic isomorphism, as producers copy successful strategies and normalize them in the sector. Normative isomorphism is also evident, as professional associations and industry standards promote certain practices for managing production and consumption cycles. For example, several *Manganji amatou* producers noted that naturally ripened peppers that turn red, while "much sweeter" and "delicious," must be discarded. As one producer explained: "The peppers are delicious when red, but we must discard

them to protect the brand." (*Manganji amatou* producer, Maizuru, Kyoto, 9 March 2023). This convergence of practices across the industry further reinforces a more homogenized cultural narrative of seasonality, creating a self-reinforcing cycle that deepens the disjuncture between natural seasonal variation and culturally designated timing and form of consumption (Beckert, 2010).

Thus, the disjuncture between seasonal production and consumption in the sake and wine industries is not merely a quirk of these particular products, but a manifestation of broader social, cultural, and economic forces. It demonstrates how the imperatives of capitalist production, the power of cultural narratives, and the pressures of institutional conformity can combine to fundamentally reshape our relationship with natural cycles and our experience of time itself. However, the preoccupation with seasonality, and the associated economic value of leveraging the concept, paradoxically encourages the creation of new "seasons" unrelated to historical or natural cycles.

Seasonal Fictions

The concept of seasonal fictions represents the most extreme manifestation of the artifice of seasonality in Japan. These fictions emerge from the interplay of social labeling processes, institutional pressures, and economic imperatives, as described by Becker (see Bernburg, 2019)once individuals are labeled as deviants, especially if they are labeled by criminal justice agents (which happens disproportionally to members of disadvantaged social groups, DiMaggio and Powell (1983), and Mann and Dickinson (1978), respectively. To illustrate this, we primarily engage examples of agricultural products, such as tomatoes and strawberries, which have gained a "winter season" contrary to natural agricultural conditions.

Becker's labeling theory helps us understand how entirely new "seasons" are socially constructed and normalized. For instance, the "winter strawberry" in Japan has become a culturally recognized category, not dissimilar to how Becker described deviant labels becoming social realities. As Tabuchi (2023) reports, "the strawberry crop peaks in wintertime—a chilly season of picture-perfect berries, the most immaculate ones selling for hundreds of dollars apiece to be given as special gifts." This labeling process has been so successful that, as one farmer notes, "We've come to a point where many people think it's natural to have strawberries in winter" (Strawberry farmer, Osaka, as quoted in Tabuchi, 2023). This mirrors Becker's observation of how labels can reshape perceptions of what is "natural" or "normal."

The Mann-Dickinson (1978) thesis illuminates why these seasonal fictions emerge in the first place. The creation of artificial growing seasons for strawberries and tomatoes through energy-intensive heated greenhouses directly addresses the issue raised in the thesis. By controlling the growing environment, producers can align labor time more closely with production time, overcoming the natural constraints that Mann and Dickinson identified as problematic for capitalist agriculture. When followed up by the discursive normalization of a diametrically opposite winter season, it can encourage higher sales while diminishing the cognitive dissonance that may be otherwise associated with consuming historically summer products in winter.

The historical example of oranges at Christmas in Europe provides a relevant historical parallel to the winter strawberry season in Japan. In these cases, what was once a luxury of out-of-season consumption became not only normalized but imbued with cultural significance. If the cultural relevance becomes widespread through traditions, ritual, and/or religion, it can achieve such a domineering status of normalization that its shared consumption practices contribute to a sense of national identity (Anderson, 2006). The winter strawberry in Japan, like the Christmas orange in Europe, becomes part of a shared national experience of seasonality, even as it diverges dramatically from natural rhythms. Since the appreciation and celebration of seasonality, associated with connection to natural rhythms, is a dominant leitmotif in Japan, how can such apparently contradictory consumption patterns take hold? This contradiction between the cultural narrative of harmony with nature and the reality of highly technologized, season-defying production methods exemplifies the complex interplay of culture, technology, and economics in shaping our experience of seasonality.

As leading agricultural corporations successfully create new "seasons" through capital-intensive technologies, other firms follow suit through mimetic isomorphism, with industry associations eventually codifying these practices as standards (normative isomorphism) (Beckert, 2010). The sectoral normalization of fictional seasons is evident in the widespread adoption of heated greenhouse technologies for both strawberry and tomato production in Japan and associated discourses of high quality associated with the winter season. This is compounded by the processes of normative isomorphism, by which industry standards and professional networks begin to promote winter-season production best practices, leading to a convergence in production methods across the industry.

The tomato, which is associated in the media as a winter vegetable (*Seasonal Food Forecast - May 2019* [YouTube], 2019), illustrates this phenomenon. Kumamoto Prefecture, on the southern island of Kyushu in Japan, ranks first in tomato production countrywide. Major production areas have expanded the production of winter and spring tomatoes through the introduction of greenhouses and heating systems, and in 2018 the shipment volume of winter and spring tomatoes surpassed that of summer and autumn tomatoes. Producers acknowledge this reversal of natural seasons while emphasizing market expectations. One producer noted: "These days we grow through almost the whole year. It's because customers want tomatoes anytime—they expect them" (Tomato producer, Uki, Kumamoto, 30 January 2023). In 30 years, the production area for summer and autumn tomatoes has grown by 4%, and for winter and spring tomatoes by 23%. This evolution in the seasonal nature of tomato production in a southern region contrasts with the temperate nature of production further north. Accordingly, from winter to spring, production is centered in Kumamoto, Tochigi, and Aichi Prefectures, while from summer to autumn, the baton is passed to colder production areas such as Hokkaido, Aomori, Fukushima, and Ibaraki to ensure a stable supply of tomatoes to consuming areas throughout the year (JALPA, 2020). This succession of production between regions is not a natural occurrence associated with the changing sunshine patterns between northern and southern Japan, but rather results from the actions of southern producers, who refrain from producing when northern producers reach a peak, in order to avoid price competition that would be damaging for everyone.

In conclusion, these seasonal fictions in Japan represent more than just clever marketing or technological innovation. They are the culmination of social labeling processes, institutional pressures, and economic imperatives that combine to create entirely new "seasons" disconnected from natural cycles. The normalization of these fictions demonstrates the power of cultural labeling and institutional (and implicitly economic) practices in reshaping our understanding and experience of seasonality, even in a society that ostensibly values its connection to natural rhythms.

Discussion

As we observed in numerous permutations above, the cultural value of the seasons can support the creation of economic value, which endogenously can create an incentive for further cultural artifice, depending on different developments and implications. As this process has long historical precedent, the real question is to what degree this process can remain complementary and generate a reinforcement of the symbolic (cultural) and commercial (economic) values while remaining coherent under the conceptual framework of "seasonality." Because Japan is among a select few countries that nominally proclaims to follow environmental seasons (Daniels, 2009; Shirane, 2017), it is worth considering if such proclamations are associated with material efforts to adhere to historical or natural rhythms. The cases above reveal that Japan's strong seasonal aspirations do not put meaningful boundaries on the artifice of seasonality; in fact, they may enhance the utility of the artifice by creating a stronger, nationally reinforced, illusion of seasonality than would be possible in other contexts.

Indeed, the attribution of cultural value to seasonal behaviors is longstanding and central but has become

even more significant in Japan, where seasonal labeling is often centralized, and the market economy, along with powerful means of communication and promotion, can ride the coattails of history to establish and disseminate seasonal fictions. As we observed above in the sub-section *Cultural Value through Labeling,* the power of seasonal legitimation is influential not only within Japan but also works beyond its borders. The months of March and April, which coincide with the *hanami* (cherry blossom) season, are one of the periods with the peak of tourism, both domestically and internationally. What was several centuries ago a rural peasant festival has now become an element of soft power on an international scale, implicating religion (festivals and historic sites), gastronomy, and consumption (Bestor, 2000; Lindström, 2007, pp. 223–224).

In this cultural and normative context, the extension of seasons (under the sub-section *Seasonal Stretching*) through capital investment and discursive shifting of seasonal consumption can potentially generate new economic benefits for economic actors. The technological costs enabling (partial) independence from climatic uncertainties are justified by the added value they create, aligning nominally with the Mann-Dickinson (1978) theory. In this sense, overcoming natural limitations can be understood as adding value, whether it is expanding the sales period or producing uncommonly sweet fruits. However, as such investments are adopted across agricultural organizations and become the norm for a type of production, they can in turn compel others to sustain or make new investments in technological upgrades. This institutional isomorphism suggests that the cultural value of seasonality, leveraged for its extension to create profit, may diminish as more participants acquire the necessary technologies. In this way, seasonality can, perhaps paradoxically, become one of the mechanisms behind the technology treadmill characteristic of mainstream agriculture (Levins and Cochrane, 1996).

This logic is even more evident when the consumption of a product is decoupled from the time of its production through the implementation of technologies (considered above in *Disjuncture Between Seasonal Production and Consumption*). The more capital-intensive these technologies are, the greater the possibility of detaching from a traditional season for consumption, and therefore necessitating yet higher cultural artifice of seasonality to (re)validate a product's seasonal nature. Often, this is channeled through culturally significant periods, particularly festive ones, where these investments find new outlets and valorization. The disjuncture between the season of production and consumption therefore remains, paradoxically, closely tied to existing traditional calendars, or even to the invention of new ones.

The creation of novel seasonalities (above under *Seasonal Fictions*) intensifies this logic. The pursuit of new profits, through investments and technologies that have become the norm, can be all the more rewarding when they align with moments in which production is most valued, both culturally and economically. The notion that strawberries are in season during the winter finds its rationale in the conjunction of the holiday season calendar and the reduced competition from other fruits at that time—factors that are advantageous for the industry, but incoherent climatically, and costly in other respects.

The potential consequences of this logic can be considered here. Referencing tradition, in particular, to create new markets invites reflection on the potential exhaustion of this approach and what might follow. In response to its constraints, some producers might seek to exist differently through sectors that promote "seasonal" products produced with fewer technological constraints (Blancaneaux, 2022; Boon and Schifferstein, 2022; Tabuchi, 2023). Ironically, by depending on environmental, cyclical conditions rather than technological ones, producers may avoid the cut-throat competition that often arises when production is artificially extended to the point where it clashes with yet more national producers, importers, and other agricultural seasons. Farming in-season can also lower indirect competitive pressures; for instance, while the season for unheated greenhouse production is shorter compared to heated ones, it also reduces costs at a time when fossil fuels are sought for residential heating. Paradoxically, while the use of oil has allowed control and anticipation of horticultural production conditions, fluctuations in raw material prices can lead to production more aligned with environmental cycles and their uncertainties rather than the instabilities of energy markets. This suggests

that a realignment of food production with environmental cycles, requiring fewer resources and investments, could emerge not so much for traditional/ecological reasons as for economic ones, while also re-aligning and validating perceptions of seasonality. The creation of markets based on the assertion of such values is not devoid of economic rationality.

Conclusion

Our investigation into the narrative of seasonality in Japan reveals how cultural traditions, economic imperatives, and technological advancements create fundamental contradictions in agricultural production and consumption. While Japan continues to pride itself on its deep connection to seasonal rhythms, production and consumption patterns increasingly diverge from these ideals. Through institutional mechanisms—from government's role as arbitrator of national "calendrical" time (Anderson, 2006) to agricultural cooperatives' technological standards—economic actors capitalize on seasonal commemorations even as they depart from agri-ecological realities. We find that seasonality operates through two key processes: first, the Mann-Dickinson (1978) dynamic whereby capital investments (greenhouses, accelerated drying, hydroponics) enable producers to overcome ecological constraints, creating new inequalities between those who can capture lucrative early- or late-season markets and those who cannot; and second, the labeling processes (Bernburg, 2019) once individuals are labeled as deviants, especially if they are labeled by criminal justice agents (which happens disproportionally to members of disadvantaged social groups through which seasonal designations seek to legitimize both traditional and entirely novel forms of temporal consumption. The cases of *Manganji amatou*, dried persimmons, sake, tomatoes, and (winter) strawberries demonstrate how producers simultaneously invoke seasonality in marketing while manipulating or even inverting natural growing seasons, revealing seasonality as increasingly an artifice—economically profitable yet ecologically disconnected.

Our findings contribute to broader debates about values in agrifood systems (Murdoch, Marsden and Banks, 2000; Goodman, 2002). While scholars have examined how quality conventions emerge in food networks (Ponte and Gibbon, 2005) and how tradition becomes commodified (Bowen and De Master, 2011), our analysis reveals seasonality as a particularly potent site where cultural and economic values become mutually constitutive. The Japanese case demonstrates how deeply embedded cultural values can simultaneously resist and enable market transformation, suggesting that the relationship between tradition and commodification in food systems is more complex than simple opposition or cooptation.

These findings raise important questions about the nature of seasonality in modern Japan. Is there a responsibility for a society such as Japan that markets itself as respecting and adhering to the seasons to maintain some level of authenticity in its seasonal practices? Should there be some accountability associated with the explicit claims by Japan (government, tourism operators, retailers) of its superior seasonality, if production practices increasingly mirror those of the global agrifood system, or are disingenuous? Moreover, we must consider the environmental and social implications of these practices. The energy-intensive nature of winter fruit production, for example, raises concerns about sustainability. The importation of summer fruits (e.g., tomatoes, strawberries) during their natural growing season in Japan seems to contradict the essence of seasonal eating that Japan promotes in marketing, tourism, and ceremonies, and has spawned increasing criticism (Lindström, 2007; Craine, 2023; Hobson, 2023).

Our research suggests that agricultural organizations are aware of the risks of cynicism about seasonal marketing and have developed sophisticated strategies to maximize seasonal value while avoiding criticism. The "gentleman's agreements" among tomato growers to avoid production in certain months, or the carefully orchestrated transitions between luxury fruit seasons, represent forms of institutional isomorphism (Beckert, 2010) that allow agricultural cooperatives, retailers, and tourism operators to collectively maintain seasonal narratives. While some producers strive to maintain traditional seasonal rhythms (Oh *et al.*, 2018) and others differentiate themselves through adherence to natural cycles as a mark of authenticity, the dominant pattern

reveals increasing artifice. This persistence of seasonal discourse despite ecological disconnection exemplifies Anderson's (2006) "imagined communities"—the shared experience of seasons, even when artificial, continues to contribute to national identity. Events like hanami remain central to Japanese social life (Moriuchi and Basil, 2019), even as their timing becomes increasingly managed.

These strategies may be reaching their limits as climate change disrupts traditional seasonal patterns and consumers become more aware of the energy-intensive nature of out-of-season production. Some producers, such as those sake producers represented above, are already differentiating themselves by emphasizing adherence to natural seasonal rhythms as a mark of authenticity while lowering production costs. Even public policy shows countervailing trends, with initiatives like "local production for local consumption" (chisanchishō) potentially reconnecting consumption with natural seasonal rhythms (Kimura and Nishiyama, 2008). While this tension between tradition and modernity is not unique to Japan, it is particularly pronounced due to the country's strong cultural emphasis on seasonality. As climate change and technological advancement further divorce production from natural constraints, societies worldwide may grapple with similar contradictions at the heart of contemporary seasonal experience.

This tension is not unique to Japan, but it is particularly pronounced due to the strong cultural emphasis on seasonality in Japanese society and outward representation. As global climate change continues to alter traditional seasonal patterns, and as technological advancements further divorce production from natural constraints, societies around the world may find themselves grappling with similar issues. Perhaps this tension between tradition and modernity, between natural cycles and economic imperatives, is at the heart of the contemporary Japanese experience of seasonality.

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