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Consuming • Eating • Well-being.

Editors

Eric Olmedo, PhD
Pue Giok Hun, PhD
Rachel Chan Suet Kay, PhD

Institute of Ethnic Studies | Universiti Kebangsaan Malaysia

Universiti Kebangsaan Malaysia
The National University of Malaysia

KITA
Institut Kajian Etnik
Institute of Ethnic Studies

FOOD AND SOCIETY

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INTRODUCTION

This book claims its belonging to the field of food studies.

Food studies, as an emerging academic field, deals generally with critical examination of food and its contexts within science, art, humanities and social science. It is viewed as distinctive from other academic fields in that it tends to look beyond the mere consumption, production, and transformation of food, and aims at illuminating food through various disciplinary lenses. In an era of economic and cultural globalization, with its food inequities and scarcities, concerns about diet and health, and fears of genetically modified foodstuff, food has gradually been recognized as a heuristic unit to explore, analyze, and interpret society – we here abide to the famous conceptual framing of "food as a total social fact" devised by Marcel Mauss (Mauss, 1924). The breadth of this approach means that food studies may also welcome "applied disciplines" that analyse and experiment with the fundamental properties of food, i.e. culinary arts, food science, and nutrition, dietetics, oenology, etc. According to Akins and Bowler (2016), it is food anxiety that contributed the most to the prosperity of food studies. Atkins and Bowler comment that is "this popular upsurge of food awareness has no doubt encouraged the parallel expansion of academic research" (Atkins & Bowler, 2916: 14). For these two authors, the tipping point was an economic and social research programme entitled the 'The Nation's Diet', which ran from 1992 to 1998 in the United Kingdom. The programme director, Anne Murcott, while delivering what she was commissioned for, found in actuality that a multidisciplinary agenda was destined to answer the question 'Why do we eat what we do?': scholars and practitioners who contributed came from economics, geography, psychology, social administration, anthropology, sociology, education, marketing and media studies. According to Murcott, "this plurality of disciplines demonstrated the strength of diversity in the social sciences" (Murcott, 1998a: 9-13), but she "warned against any raised expectations that this programme might represent a statement of integration" (Atkins & Bowler, 2916: 14). Atkins and Bowler do not share – and neither do we – Murcott's pessimism and prefer to argue that "intellectual barriers have been exaggerated and that, if anything, there has been a recent convergence of the social scientific and cultural theories of relevance to food studies (Ibid, p. 14).

Due to its interdisciplinary nature, food studies need to rely on methodologies and framings that derive from other disciplines. In this sense, it has been developing in much the same manner as other interdisciplinary fields. Until today, food studies remains largely US-centric, while momentum is gaining in Western Europe after a long transition period in academic wilderness due essentially to the demise of structuralism. To our knowledge, there has been so far no formalized organization, association, nor network that deals explicitly with food studies in the Asia-Pacific region except for a small working group of scholars harboured in the Yale-NUS College of the National University of Singapore. We need however to do justice to a Taiwan-based foundation, the Foundation of Chinese Dietary Culture, which has been hosting bi-annual symposiums since 1989; proceedings combine papers written in English and in Mandarin. There is also a sizable food studies network in China that publishes mostly in Mandarin, rendering access to knowledge a bit more challenging to the rest of the world. In line with Atkins and Bowler, this first international

conference leads us to believe that tremendous opportunities exist for cross-fertilization between disciplines and that it would be a shame not to leverage on it. In this light, the Asia-Pacific Food Studies Network (APFSN) was created in 2016 at first to fill this gap but also "to break walls and build bridges", as we lyrically put it on our website. We cannot help now but to sense some over-emphasis pretence in our choice of words at the time. In the beginning, what we intended to do was simply to connect isolated researchers within Malaysia and Singapore whom didn't feel they had a sense of belonging to the traditional food-related fields of research in the region such as nutrition, food technology, food safety, dietetics, etc. Breaking walls refers to addressing the problem of individual isolation not only in social science research, but also traditional scientific work in silos. Building bridges thus involves initiating transdisciplinary work in order to make sense of high-stakes issues in the sectors of public health, consumer behaviour and immaterial heritage. Eventually, interest and demand grew, and our network expanded beyond the boundaries of the old Malay Archipelago to cover the whole Asia-Pacific region. The Asia-Pacific Food Studies Network has its headquarters at the Institute of Ethnic Studies (KITA) located within the walls of the National University of Malaysia (*Universiti Kebangsaan Malaysia*).
This book captures the proceedings of the first international "Food and Society" conference organized by the Asia-Pacific Food Studies Network. The conference took place in November 2016, in the premises of the Bangi-Putrajaya Hotel near the National University of Malaysia's main campus. This first international conference aimed at examining political, sociological, anthropological and economic forces that shape the positions and roles of individual and community in their common society, using food as a heuristic unit.

Proponents of the structuralist movement used to say that food is quintessentially the grammar of a people's culture. Nowadays, closed culinary systems that can be comprehended and investigated as cultural systems are seldom found. Today's urban plural eaters are complex social beings; nonetheless, studying their eating habits can help understand (trans)formations of their social identity while extending to more macro-issues such as globalization versus ethnic revival through revitalization of forgotten crops, or even cultural decolonization through construction of national cuisines.

Studying eating habits is not contingent on scrutinizing dining out or eating-at-home patterns. Investigating food consumption subsequently examines the upstream links in the human food chain, such as food transformation, distribution and production, and therefore questions more broadly man's relationship with society; the real question is "what society are we talking about?" As Clarence-Smith aptly puts it, "even more striking is how much is known about the West, including the New World and other 'Neo-Europes', than about Muslims and East Asians" (Clarence-Smith, 2008: 49). We shall therefore endeavour to modestly start filling that gap with these conference proceedings entitled "Food and Society in Asia-Pacific: Eating, Consuming, Well-being". This book is divided into four (4) main parts, i.e. (1) Food Politics, (2) Food and Identity, (3) Food and Well-being, (4) Food and Consumerism. Papers presented are properly introduced and commented at the beginning of each part for better readability; each part closes with an elaborated conclusion. A general conclusion sums up the state of research while designing a tentative research agenda to be addressed in the next conference.

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PART 1: FOOD POLITICS

INTRODUCTION

The study of food and eating has its origins long ago in the field of anthropology (Mintz & DuBois, 2002). Food studies have illuminated broad societal processes such as political-economic value creation, symbolic value creation, and the social construction of memory (Mintz & DuBois, 2002). Colonial encounters have also been responsible for shaping present-day food consumption and production practices (Dietler, 2007). The general semiotic properties of food take particularly intense forms in the context of gastro-politics, where food is the medium, and sometimes the message of conflict (Appadurai, 1981). Even in the literary field, food metaphors represent the most "vexing clichés" of postcolonial and diasporic fiction (Wagner, 2001). This has pressed scholars to explore how alternative food networks contest industrial capitalist foodways (Wilson, 2016). Furthermore, the emergence of such a concept as national cuisine suggests a processual model that needs to be tested comparatively in other postcolonial situations in the contemporary world (Appadurai 1988). Especially where nationalism is concerned, food as part and parcel of the politics of the world we live in is deeply entrenched in the nation-state system (Ichijo & Ranta, 2016). For instance, the "food and nationalism" axis can link everyday nationalism expressed in commonplace activities, such as cooking, eating, and drinking, to the sensitivity surrounding food aid and thus connect the mundane to international politics and political economy (Ichijo & Ranta, 2016). Thus, the following collection of papers aims to illustrate exactly these issues, particularly in postcolonial and nation-building contexts.

The issue surrounding a "Malaysian gastronomy", which is its postcolonial national identity quest and the process of decolonisation is explored by **Eric Olmedo** in his paper "Politics of Food: The Process of Gastronomisation in Malaysia". Olmedo highlights how a country's ownership of "gastronomy" can be useful for either tourism in the cultural and economic sense, or even "soft power" in the political sense. However, Olmedo claims that a rapid survey reveals that Malaysia has little presence of "gastronomy". To solve this problem, he suggests a methodological framework to enable the process of gastronomisation for Malaysia, comparatively with the French experience, by using the framework of high versus low cuisine to denote the presence of symbolic capital.

Closely connected to this is **Kathleen Burke**'s account of "Rice and the Politics of National Cuisine in Malaysia and Indonesia, 1990-2015". In her paper, Burke examines how urban elites used government documents and newspapers to promote "national" cuisine based on a nostalgic view of subsistence rice farmers. Burke argues that the construction of "national cuisine" in Malaysia and Indonesia was a deeply political process, that reflected and recapitulated social hierarchies around class, gender, and ethnicity.

In addition, **Anisha Chai** uses the case study of Malaysia to illustrate the process of creating a "national cuisine". She conceptualises a framework for the investigation of the emergence of national cuisine in the multi-ethnic society of Malaysia, and its

relation to national identity construction, through Shamsul Amri Baharuddin (1996)'s concept of "authority-defined" versus "everyday-defined" experience.

Meanwhile in East Asia, countries such as China and Japan, while not postcolonial, also experience issues of nation-building. Intertwined deeply with their food consumption is the complex history of both countries. **Liz P.Y. Chee** chronicles the history of shark fin consumption in Republican-era China, in her paper "Down With Shark Fin!: The Politics of Eating Shark Fin and its Shifting Nationality in Republican China". Chee examines the issue of nationalism surrounding the consumption of shark fin, which originated in Ming Dynasty China, but was later associated with China's then nemesis, Japan. She explains how the dish temporarily shifted its cultural identity within the context of China's Republican era, and was eventually "reconciled" with its Chinese origin.

Finally, **Rumi Ide** suggests ways to reduce food loss in Japan, in the paper "Possible Countermeasure to Reduce Food Loss in Japan". Ide examines the issue of food manufacturers trying to extend shelf life of food products by changing their manufacturing processes and packaging materials. However, Ide notes that the Japanese government recommends a certain measure of safety with regards to establishing the duration of shelf life. Thus within this context, Ide looks at countermeasures that can be used to reduce food wastage, such as adjusting the factor of safety, extending the period of shelf life, and others.

This collection of papers illuminates how foodways represent an arena for contestation of resources, not only for basic subsistence, but for the dignity inherent in the representation of identity at a national and decolonized level.

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RICE AND THE POLITICS OF NATIONAL CUISINE IN MALAYSIA AND INDONESIA, 1990-2015

Kathleen Burke

Abstract

This paper examines how government and urban middle classes promoted rice-based dishes as 'national cuisine' in Malaysia and Indonesia, which memorialised their purported origins among subsistence rice farmers. This occurred amidst economic and social transformations, including urbanisation and a proportional decline in agricultural livelihoods. Rice had historically played a significant role in constructions of Malay and Javanese identity, culture and eating practices, where rice was considered the primary constituent of a meal. However, what distinguished constructions of national cuisine from the 1990s onwards was that they sought to memorialise subsistence rice farmers at the moment of their increasing social and economic marginalisation. The paper examines how urban elites used government documents and newspapers to promote 'national' cuisine based on a nostalgic view of subsistence rice farmers. In focusing on these documents, the paper interrogates Benedict Anderson's claim that print media allowed for the formation of new 'imagined communities'. The process of constructing national cuisine also revealed economic shifts towards tourism, which were driven by attempts to codify and commodify culinary practices and present these to international audiences.

Keywords: National cuisine, rice, imagined communities, food history, Malaysia, Indonesia

Introduction

This paper analyses the way that government and urban elites sought to construct national cuisine in Malaysia and Indonesia between 1990 and 2015. This period was marked by fragile attempts at rice self-sufficiency, the growth of urban middle classes, and the increasing role of the state in defining and commodifying 'national' culture through the idiom of tourism. During this period, government and urban elites in Malaysia promoted a dish called *nasi lemak* as the national dish, while similar processes occurred in Indonesia for *nasi goreng*. This narrative mythologised their origins among Malay and Javanese subsistence rice farmers respectively. Significantly, it emerged during a period of social transformation in Malaysia and Indonesia, which were characterised by economic shifts away from agriculture and the concomitant growth of urban middle classes. In this way, constructions of national cuisine memorialised the culinary practices of subsistence rice farmers at the moment of their increasing social and economic marginalisation.

The paper interrogates Benedict Anderson's claim that print media gave rise to new opportunities for urban elites to the construct 'imagined communities'. Extending Appadurai's analysis, which examined the discursive work done by cookbooks, it analyses the extent to which government documents and newspapers attempted to construct a narrative of 'national' cuisine (Appardurai, 1991). The paper does not seek to contribute to the theoretical debate of defining 'cuisine', but rather to follow those historians who have situated constructions of cuisine 'within particular social and cultural

contexts of production, distribution and consumption' (Cwiertka, 2015). It responds to the limited culinary historiography in Malaysia and Indonesia. At the same time, it contributes to the growing scholarship on national cuisine in other contexts, analysing the specific processes in the socio-historical context of Malaysia and Indonesia, which may open up opportunities for future comparative work.

The paper is structured as follows. The first section examines how government policy in Malaysia and Indonesia to promote rice self-sufficiency was underpinned by specific cultural values on the importance of rice. The second section examines how Anderson's notion of 'imagined communities' can be productively applied to government and urban elites, while the following section looks at how they used print media to construct particular meanings of nasi lemak and nasi goreng. The final section draws out some wider implications of this process, and how it reveals deeper social and economic transformations, as well as the recapitulation of social hierarchies around class, ethnicity and gender.

Political economy of rice agriculture

Malaysian and Indonesian governments made self-sufficiency in rice production a policy objective commencing in the 1950s (Bray, 2016; Owen, 1989). From the 1970s onwards, government policy in Malaysia and Indonesia shared a number of features associated with the so-called Green Revolution. This included the selective breeding of high-yielding rice varieties; increased use of agrochemicals such as fertilisers and pesticides; and irrigation schemes which brought more land into rice cultivation (idem). Mechanised methods such as tractors were also provided to replace manual farm labour, with the objective of increasing production.

Government policy to achieve self-sufficiency in rice production privileged constructions of Malay and Javanese identity, respectively, and traditional livelihoods associated with these identities. Rice had historically played a significant role in constructions of Malay and Javanese identity, culture and eating practices, where rice was considered the primary constituent of a meal (Bray, 2016; Kratoska, 2009; Utari, 2009). Rice cultivation was widely practised by Malay and Javanese farmers, and a rich set of rituals and epistemologies accompanied the sowing and harvesting of the crop (van der Kroef, 1952). This history was re-imagined and re-capitulated by the use of government economic policy. Rather than being a 'natural' or inevitable phenomenon, government policy worked to promote rice production and consumption as a national ideal, which was linked to a politics of independent nationhood. In the case of Indonesia, this may have been further supported by government programs for the transmigration of Javanese people to other less populated islands (Utari, 2009; Goto, 2011).

Print media and imagined communities

Urban middle classes grew significantly in Malaysia and Indonesia in the 1980s and 1990s, accompanied by a rise in newspaper circulation. This shift towards urbanisation was accompanied by structural changes in the economy away from rural agriculture and into services and manufacturing (Bray, 2016). In Indonesia, social transformations intensified in the 1990s, as the government implemented decentralisation reforms (Budiman, 2011). These economic shifts were accompanied by social transformations and the growth of an educated middle class, who were typically literate in multiple

languages including English. English-language periodicals had existed in Malaysia since the period of British colonial rule, including *the Straits Times* which was first published in 1845, later becoming the *New Straits Times* in 1967 after the independence of Singapore. In Indonesia, urban-based periodicals called the *Jakarta Post* and the *Jakarta Globe* originated in the 1980s and saw increased circulation with the growth of urban middle classes.

In his influential work on the origins of nationalism, Benedict Anderson argued that print capitalism changed the way that people conceptualised themselves as part of 'imagined communities' (Anderson, 1991). For Anderson, these communities were 'imagined' because their members were unlikely to personally know all the other members. Print capitalism, and newspapers in particular, created an awareness that members were part of a larger community within a 'particular language field' (idem). Extending his formulation, English-language newspapers arguably created certain imagined communities in Malaysia and Indonesia. Newspapers in the 'language field' of English connected readers associated with a particular educated, middle class and urban identity. The next section examines how urban elites used print media to construct a notion of 'national' cuisine that carried symbolic meanings for this particular 'imagined community'.

Construction of national cuisine

Analysis of newspaper sources in Malaysia reveal shifts in how urban actors imagined nasi lemak and the kinds of symbolic meanings that were constructed around it. In the 1990s, there was a general trend for articles to mention nasi lemak as a 'typical' Malaysian breakfast dish, without, however, making claims that it represented a universalised national cuisine. Reporting during this time was associated with nostalgia and guilt, as discourses on nutrition were mobilised to question the nutritional benefits of nasi lemak within the context of 'modern', urban lifestyles (Wati Abas, 1998, October 29; Albela, 1996, 25 April).

During the 2000s, newspaper articles began to specifically associate nasi lemak with 'national cuisine'. This was generally linked to government efforts to boost tourism (Rahman, 2000, April 22). Nasi lemak was transformed from a breakfast dish prepared by subsistence rice farmers into one that could be consumed at any time of day by urban dwellers (Dhojee, 2000, November 4). As a construction of nostalgia, it held strong associations with a romanticised Malay past that stood in contrast to the rapid social transformations experienced in Malaysia during this time, including increasing urbanisation and shifting gender roles as more women entered the workforce. Its re-imagining as the 'national dish' of Malaysia did important discursive work to recuperate the memory of subsistence rice farmers who were specifically Malay in origin.

In Indonesia, rapid social change occurred in the 1990s associated with state decentralisation reforms and a shift in GDP away from agriculture. In the late 2000s, the government began to take an active role in codifying culinary practices in order to find a 'common denominator' which could be categorised as 'national cuisine' (Jakarta Globe, 2011 January 4). This logic sought to reduce diversity to a single unity or commonality of elements. In this way, it existed in uncomfortable relation to the national motto of 'Bhinneka Tunggal Ika, or 'Unity in Diversity', first promoted by President Sukarno in 1945. Rather than promoting multiplicity, government efforts employed a reductionist logic in order to identify shared elements.

Government documents and newspapers revealed the complexity of reducing Indonesian cuisine to a single dish emblematic of a nation. In fact, several dishes were mooted as the 'national dish', and the government produced a brochure with thirty 'culinary icons' from across the archipelago (Culinary Icons, 2013). This brochure nonetheless revealed a bias towards Javanese and Sumatran dishes, which, while heavily populated, represented a fraction of regional cooking styles. The difficulty in choosing a single dish to represent the archipelago particularly turned on a handful of dishes: nasi goreng and nasi tumpeng (Culinary Icons, 2013).

Nasi goreng was superficially similar to nasi lemak in that it was a dish with purported origins among subsistence rice farmers. However, it differed structurally from nasi lemak in that rice was not the centrepiece of the meal to which other components existed in relation, but was mixed together with other ingredients. In this way, nasi lemak resembled nasi tumpeng more than did nasi goreng. Nasi tumpeng was heralded by Government Ministers as the most unique Indonesian dish, and was thought to be connected to sacred cosmologies around rice harvest rituals (Culinary Icons, 2013). However, nasi goreng was popularised more by newspapers as 'national' cuisine (Jakarta Globe, 2011 January 4; Jakarta Globe, 2012, 12 January). It was imagined as a typical breakfast dish among farmers, made using leftover rice from the night before, thereby revealing moral economies around food wastage (Culinary Icons, 2013). In this way, it shared a common origin narrative with nasi lemak as the breakfast dish of subsistence rice farmers that had rice as its main component. Its adaptability and lack of formal structure also made it an attractive candidate for national cuisine as it could accommodate a diversity of regional styles, and thus, within limits, a degree of ethnic pluralism.

The debate around the choice of nasi goreng or nasi tumpeng revealed the complexity of actors involved in constructing national cuisine: nasi goreng was considered to be more 'recognisable' to foreigners, as it was a dish that had travelled particularly onto Western restaurant menus. The movement of Eurasians to the Netherlands after the complicated process of Indonesian independence had promoted the dish's visibility to Western audiences, becoming a common item on Indo-Dutch menus in the Netherlands (Van Otterloo, 2001). Newspaper reporting showed the desire to promote dishes that were 'recognisably' Indonesian to foreign audiences, which could be made to stand in for the nation (Jakarta Globe, 2011 January 4). Several reports focused on how nasi goreng was served to foreign diplomats, including as part of a performance of national identity at the World Economic Forum (Jakarta Globe, 2012, 12 January). US President Obama's comments about his childhood memories of nasi goreng, widely reported in the international press, also popularised the notion of nasi goreng among English-speaking foreign audiences who were a major target for tourist income (Jakarta Globe, 2008, 28 November).

National cuisine and social hierarchies

In both Malaysia and Indonesia, the drive to codify 'national cuisine' was underwritten by economic changes away from agriculture as a proportion of GDP and towards manufacturing and services including tourism.The codification and commoditisation of 'national cuisine' in order to attract tourism therefore occurred in tandem with the marginalisation of subsistence rice farmers, and should be seen as interconnected phenomena.

This process also revealed a divide between urban consumers, and rural labourers who were producers as well as consumers of rice. Individuals who were not themselves rural rice producers participated most actively in constructing national cuisine through print media. This may reveal anxieties around urban dwellers' reliance on commercialised rice production and the decline of 'traditional' livelihoods. Within a generation, younger people from farming backgrounds had increasingly moved to the cities for work, thereby creating further divisions between rural and urban areas along generational lines (Bray, 2016). This also had a strong gendered dimension: as more women entered the urban workforce, they had less time to to devote to the labour-intensive, unwaged domestic work of food preparation (Kubo, 2010; Ying, 2016).

At the same time as revealing tensions between urban and rural classes, the construction of national cuisine also revealed the production and hierarchisation of ethnicised identities. In promoting Malay and Javanese culinary practices as constituent of national identity, it flattened out the great diversity of eating practices across Malaysia and Indonesia. In particular, this narrative of national identity seemed to exclude hunter gatherers, including some *Orang Asli* in Malaysia, some of whom practised hunter-gathering and relied on forests for subsistence rather than cultivating rice (Dounias, 2007). At the same time, peoples of the eastern Indonesian archipelago consumed sago, roots and tubers as staples (Goto, 2011). As tubers had a higher caloric yield than rice and required less labour, they had been easily incorporated into subsistence cultivation and eating cultures (Boomgaard, 2003). Furthermore, they grew in a wider variety of soils and topographies compared to wet rice cultivation, which favoured lowland wet climates such as Java and Bali (idem).

Conclusion

This paper has analysed efforts to promote national cuisine in Malaysia and Indonesia, arguing that urban elites constructed notions of national cuisine, which memorialised subsistence rice agriculture at the moment of its increasing social and economic marginalisation. The paper has argued that the construction of national cuisine in Malaysia and Indonesia was a deeply political process that at once reflected and sought to recapitulate social hierarchies around class, gender and ethnicity. This revealed processes of social and economic transformation, including the decline of rural livelihoods, increasing urbanisation, economic shifts away from agriculture to services including tourism, and the increasing participation of women in the workforce. These interlinked phenomena are important to understand why elites chose to re-imagine nasi lemak and nasi goreng as 'national' dishes. Through print media, these dishes were made to stand in for wider meanings about the role of subsistence rice agriculture in constructions of the Malay and Javanese past, revealing anxieties around the decline in these 'traditional' livelihoods associated with urbanisation and economic shifts towards services. At the same time, the re-imagining of these dishes served to subtly recapitulate notions of Malay and Javanese identities at the heart of national identity.

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"DOWN WITH SHARK FIN!": THE POLITICS OF EATING SHARK FIN AND ITS SHIFTING NATIONALITY IN REPUBLICAN CHINA

Liz P.Y. Chee

Abstract

This paper explores the relationship between shark fin and the politics of late Republican China. While it is well-known that shark fin soup originated in Ming China, shark fin as a modern, mass-vended commodity has its own more complicated history. Officials and the popular media in the Republican period (1912-49) actually questioned the nationality of shark tissue, and the patriotism of those who imported and consumed it. More specifically, it became associated before and after the Second World War with China's nemesis Japan, and shark fin soup was denounced by some as "the enemy's dish". This paper will explain how, within the context of Republican period politics, and continuing even into the early Communist period, a dish now closely identified with Chinese banquets temporarily shifted its cultural identity.

Keywords: Shark fin soup, wartime China, Japan, Republican China, food studies

Introduction

In 1946, China had been part of the Allied coalition which defeated Japan, and could for a brief moment take stock of its victory. Banquets were again now possible, but their menus, like all else in China, were a matter for political critique. In May of that year an article entitled "Ban the Consumption of Shark Fin" in the journal New Shanghai made this argument:

> Shark fin is a banquet dish. It is bland and unpalatable, but even then many believe that shark fin adds sophistication to an otherwise lacklustre meal. It is therefore a luxury item, whose consumption is highly impractical given the nation-building effort in contemporary China. Furthermore, shark fin comes from Japan, a product of our enemy, which reinforces my recommendation to not eat it (Yu, 1946, p. 11).

The author went on to accuse the Shanghai-based shop Da'de of maintaining a monopoly on shark fin and being responsible for suspicious fluctuations in its price. Hoarding was behind this price manipulation, the author claimed, a crime made all the worse given the circumstances of China and the "Japanese" origin of the product.

A discourse strongly associating shark fin with Japan had existed in Chinese political commentary since the 1920s, and, as this article indicates, even survived Japan's defeat in the Second World War. This was despite the fact that the use of shark fin as a food ingredient had originated in Ming China (Nie & Zhao, 2004, p. 81) and was not associated with Japanese cuisine. The connection had less to do with recipes, though these were drawn into it, and more with shark fin as a Japanese import. This led to persistent attempts by Republican reformers to strip shark fin of its 'Chinese-ness' and impose on it the identity of China's enemy and rival, a discourse that continued to taint the material and its consumption into the early Communist period.

To date, shark fin has not received much serious historical attention, despite its contemporary identity as one of the most controversial of Chinese food ingredients. Most scholarly discussions accept the framework of *Chinese tradition* without looking too closely at the period between the Ming, when the dish is reported to have originated, and the reforms of Deng Xiaoping, when it became one of many luxury items with greater consumer availability (Simoons, 1991, pp. 431-432). Its consumption became so rampant by the early 21st century as to seriously impact shark populations, with knock-off effects on the ecosystems of coral reefs, not to mention the cruelty and waste of harvesting fins but not the whole animal. This led to an international conservation effort to ban shark finning and the consumption of shark fin soup. For reasons more related to the material's status as a luxury, and hence a catalyst for bribery and corruption, the Chinese government in 2013 banned the serving of shark fin at official functions. Other governmental entities around the world, and some corporations, have also bowed to pressure from environmental activists and placed prohibitions on selling or handling the material. Few were aware, however, that this was not the first time in modern history that shark fin had been the target of boycotts. This paper will fill the historical gap between Ming China and the 21st century by discussing how shark fin became interwoven, and usually in a negative way, into Chinese politics in the Republican period and beyond.

Opposing Shark fin eating in China

It is unclear who first coined the phrase "Down with Shark's Fin!", but it was deployed in China as early as 1926, two years before the Jinan Incident lead to a more general and sustained boycott against all Japanese goods.[1] The slogan appeared prominently in two 1927 articles, in back-to-back issues of the Revolutionary Illustrated Magazine, a publication associated with the ruling Kuomintang. In the first, titled "Cutting off Economic Ties with Japan and the Shark's Fin Problem", author Wei An called shark fin "a purely Japanese product" and wrote that "last year (1926), sentiments against Japanese goods were the strongest (Wei, 1927a, p. 2). In Shanghai, there existed the slogan "Down with Shark's Fin!". A year later, he lamented, the message was being forgotten and needed re-broadcast. Unlike later writers, Wei did not tag the dish as a gross luxury. In fact he revealed that Chiang Kai-Shek still served it, though he credited the general with preparing it in the most economic manner, thus keeping the overall cost of his banquets low (Ibid). That Wei brought Chiang's eating preferences into the article at all could have been a form of mild censure, however, hence the countervailing reference to the warlord's frugality.

In his second article Wei proposed a solution to the dilemma of foregoing shark fin soup at a high-status Chinese banquet. He recommended as a replacement "Zhongshan soup":

> What is Zhongshan soup? It's the Big Blood Soup that is being sold in Wei's Restaurant based in Shanghai. Big Blood Soup is made from the blood of pigs. Sun Yat-sen once said pig's blood is full of nutrition, which far surpasses all other health products. Outsiders used to call us barbarians because we eat pig's blood, but it is not the case anymore. Foreign hospitals are now using pig's blood to treat patients with anaemia. It is an indispensable medicine in building iron. Pig's blood should therefore be used to replace [shark's fin] (Wei, 1927b, p. 1).

As in the first article, Wei borrows the name of a famous politician to help sanction his proposal, perhaps suggesting that Sun's tastes were the more patriotic. And while shark fin soup was sanctioned by tradition, pig blood soup was seemingly sanctioned by modern medicine. Pigs were also indisputably Chinese, while the nationality of sharks was disputable whether or not they were caught in Japanese nets. Wei even denounced shark fin soup as "tasteless", noting that it only became tasty by adding a host of ingredients like chicken. On the other hand, Wei argued, pig's blood was not only delicious (at least after all impurities were removed) but auspicious looking since blood represented the favourite Chinese colour: red.

Wei's reference to the new science of nutrition would be picked up by subsequent critics. An anonymously-authored article of 1935 argued that shark's fin should not be considered a luxury because its caloric value was so low. "Each *jin* of shark's fin only has 375 calories", the author wrote, "and this is far less compared to other meat such as chicken, beef and pork" ("Yuchi Wei Fei", 1935, p. 3). The references to both its tastelessness and lack of nutritional value framed shark fin as an essentially empty luxury. Tradition was hence its only sanction, and one not particularly charismatic in a period obsessed with modernity and nation-building. And given that its sustenance now depended on trade with China's rival and soon-to-be enemy, Japan, shark fin was a near-perfect target for political reformers.

The Japanese-ness of shark fin

Calls to boycott shark fin continued into the 1930s, as relations between China and Japan further worsened. On the very eve of war, in 1936-1937, published statistics highlighted Japan's leading role in the shark fin trade. The Aquatic Product Monthly Journal declared in 1936 that "Japan takes first place" in both shark fin and sea cucumber imports ("Qunian Yuchi", 1936, p. 95). An article that same year in the Sichuan Economic Monthly Journal gave a more detailed picture. While Hong Kong, Thailand, Singapore, and parts of Yemen were all sending shark fin to China, Japanese exports surpassed that of all those countries combined ("Yuchi Haishen", 1936, p. 61). How much of this was actually the product of Japanese fishing boats is unclear, however, as the category "Japan" included the colonies of Korea and Taiwan, not to mention Okinawa, whose fishermen were particularly ubiquitous throughout East and Southeast Asia. Hong Kong would have been the top exporter of shark fin to China if the various parts of the Japanese empire had been separately categorized (Zhang, 1936, pp. 1-7), though we cannot know from such sources whether Hong Kong was simply re-exporting from the Japanese territories.

The "Japanese" origins of the product, however, began to influence the serving of shark fin at banquets well before the outbreak of war. In 1934, the government of Shaanxi province issued an order forbidding the consumption of both sea cucumbers (also largely imported from Japan) and shark fin at official functions, anticipating the stance of the Chinese government in 2013. As with later bans, this was presented as serving both foreign and domestic self-strengthening policies, in this case advancing the New Lifestyle Movement (*Xin Shenghuo Yundong*), launched the same year to promote a return to so-called "traditional" Chinese practices, which in this instance meant frugal living. The order also limited spending at banquets to only twelve yuan per table ("Xunling", 1934, pp. 11), well below the cost of a single bowl of shark's fin soup in the 1930s. Despite the call for bans, however, Chinese officials found the habit of eating

shark fin hard to stop. Some even argued that since it was from Japan, they should all the more be eating shark fin to "relieve their hatred" (*jie jie hen*) (Shu, 1932, p. 2).

The continuing disrepute of shark fin in Post-War China

As we saw in the introduction, victory and the resumption of banqueting in the immediate post-war period brought no quick rehabilitation for shark fin. Articles denouncing it continued to appear in the Chinese press, which also tells us that some among the wealthy were consuming it again despite political incorrectness. According to a journalist writing in 1946, shark's fins caught in the Philippines were considered premium, and the larger the better. For the dish itself, ten chickens and the whole leg of a pig (ideally from Yunnan) were also required for broth-making, and full banquets of this type could now be ordered in some urban Chinese restaurants (Deng, 1946, p. 1).

By the late Republican period, the price of such a delicacy had of course increased exponentially due to inflation and war-time shortages (Ibid). But given its status as a luxury, and with the victory over Japan seeming to clear the stigma of its origins, some were tempted despite the price. One such gourmand was the official Xu Jiqing, who misjudged the extent to which the dish had been rehabilitated. During the war, he and two other colleagues had sworn an oath never to indulge in eating shark fin. While his companions both fell to this and other temptations, Xu earned for himself the nickname of "The White Lotus", meaning he remained pure and uncorrupted. After the war, however, Xu was discovered eating shark fin and publically excoriated (A La, 1946, p. 5). The ready availability of shark fin right after the war ended (one source suggested they were entering China by the billions), along with uncertainty about its origin, may have suggested to some an ongoing collaboration with the vanquished enemy, or at least some of his fishermen (Kui, 1946, p. 2).

The pre-war discourse about the nutritional emptiness of shark fin also continued into the post-war period, by which time the science of nutrition was re-classifying and re-imaging a host of foods. An anonymously-authored article of 1948 told Chinese readers that not just shark fin but bird's nest, sea cucumber and even white fungus – all traditional luxury foods in China - had little nutritional value. This was to counter the common idea that their exoticism made them better for the body than more mundane foods, the author calling those who still believed this "superstitious" and "unscientific" ("Youming Wushi", 1948, p. 4).

In addition to its association with Japan and its lack of nutrition, shark fin raised the spectre of trade imbalance, as the import of luxury products threatened an outflow of local currency. This argument had first been deployed in wartime, a 1940 article by author Wei Juxian highlighting that "instituting shark's fin and sea cucumber in banquets will worsen the foreign exchange situation" (Wei, 1940, p. 4). The situation was no better as Republican forces fought for their lives against Communist armies.

Another argument made after the war was that much of what was sold as shark fin was something else entirely. In 1946, Qian Tong wrote in the article "Shark's Fin: Both an Enemy and a Fake":

> Shark Fin is a product of Japan, and so should be called Shark Fin the Enemy. Because it is expensive, restaurants often mix sliced jellyfish into shark's fin. Just

> like [the proverb] "mixing [fishes' eyeballs] into pearls" in order to make a profit. Both make a "su su" [i.e. crunchy] sound on the bite, so it is easy to deceive customers … Plus it's also an enemy product, which adds to the criminal offence. I hereby announce shark's fin to be both an enemy and a fake (Qian, 1946, p. 6).

Despite such writings, the sale and even smuggling of the product continued. In June 1948, the Guangdong customs seized seven large bags filled with shark fin and sea cucumbers from a train heading to Wuhan, the smugglers being the railroad staff. The report also pointed out that the contents of the bags had come from Japan ("Guonei Jianxun", 1948, p. 6).

From fin to liver: the rehabilitation of sharks in the early communist period

Sanctions against consuming shark fin of course became even more politically correct once the Communists seized power. Yet in the 1950s, at least one shark product came to be a source of interest to China's industrialization efforts, and ultimately helped rehabilitate sharks as Chinese, and hence consumable. This time, however, the focus was not on the fin, but the liver. The initial stimulus was the surge in worldwide production of shark liver oil during the war, as an emergency measure in the Allied countries to replace the over-the-counter "nutritional supplement" cod liver oil. The Allies' access to cod liver oil had been cut off when the main supplier, Norway, fell to Germany in 1940. Sharks became the substitute for cod, by virtue both of the size of their livers and the extent of their range (Xia, 1948, pp. 17-18). This in turn created an unprecedented uptick in shark fishing in different parts of the world. Until the war, sharks had not been seen as a sustainably useful commodity outside the limited demand for their fins by the Chinese (Chee, forthcoming).

Recognition of the virtues of shark liver oil soon spread to China ("Yong Sha", 1948, p. 3). It was only in the Communist period, however, and really only in the Great Leap Forward, that shark-fishing became a national industry, now tied to pharmaceutical production. As part of the Great Leap Forward effort to overtake Britain in pharmaceutics, the Xiamen-based Fish Liver Oil Factory created a new product line called Xingsha ("*sha*" derived from the Chinese character for shark) as a substitute for cod liver oil being imported to China via Hong Kong (Chee, 2016, pp. 79-80). Some shark fishing had taken place in southern China before this, but with an increasing market for livers, the practice spread further up the coast. One example was Zhejiang Province, where sharks ranging in size from two thousand to fifteen thousand *jin* (1000-7500 kg) were caught in the Zhoushan Archipelago. It was reported that the liver of the biggest shark caught in a particular fishing trip there weighed eighty-two thousand *jin* (forty-one thousand kg) and enriched the fishermen by more than four billion yuan. Significantly, their profit included the shark's fins, which were now harvested as a by-product (Qian, 1952, p. 339). While more research remains to be done on the Chinese shark fishing industry, the harvesting of livers for medicinal purposes was likely one factor in the gradual political rehabilitation of shark fin as a Chinese food in the later Communist period.

Conclusion

This paper has demonstrated that whilst a "traditional" dish associated with the Ming period, shark fin was forcefully critiqued by the Chinese in the mid-20th century and

almost expelled from the canonical banquet menu due to its association with China's nemesis, Japan. Reformers discouraged eating shark fin as part of a larger anti-Japanese movement in China, but also critiqued it was an expensive luxury, with little or no taste or nutritional value. In an age of modernizing and nation-building, sharks were thus de-nationalized, a project which might have been successful save for the post-war Chinese production of shark liver oil, related to overtaking Britain in pharmaceuticals in the Great Leap Forward. Thus did sharks, including their fins, again become Chinese.

Endnotes

1. Boycotts against foreign goods in China have a history extending from the 19th century. Specifically anti-Japanese boycotts began in 1919, and have continued into the present century. For an overview see Karl Gerth, *China Made: Consumer Culture and the Creation of the Nation*. Cambridge, Mass.: Harvard U. Press, 2003.

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NATION AND NATIONAL CUISINE: A CASE STUDY IN MALAYSIA

Anisha Chai

Abstract

National identity, an essential element in nation building, can be constructed based on a nation's historical roots, political and economic lineaments, and the everyday engagement of its people in their routine activities. The former being the macro structural forces of a nation, while the latter reveals the *nation-ness* that is embedded in the people's everyday life. Cuisine, a significant resource in the making of individual and collective identity, is often perceived as the characteristic of the people and nation and is undoubtedly one of the most evident aspects of everyday life. The emergence of Malaysian national cuisine comes into being with the nation's quest to create a shared identity that signifies solidarity among the diverse social structures of Malaysia on one hand, and a distinctive identity that can be easily recognised by others on the other hand. The aim of this paper is to conceptualise the framework for the investigation of the emergence of Malaysia's national cuisine in the multi-ethnic society of the nation and its relation to the construction of national identity based on the theoretical framework of authority-defined and everyday-defined social realities.

Keywords: National identity, national cuisine, authority-defined social reality, everyday-defined social reality, Malaysia

Introduction

National identity, an essential element of nation building, can be constructed based on a nation's historical roots, political and economic lineaments, and the everyday engagement of its people in their routine activities. The former being the macro structural forces of a nation, while the latter reveals the *nation-ness* that is embedded in the people's everyday life.

Cuisine, a significant resource in the making of individual and collective identity, is often perceived as the characteristic of the people and nation, and is undoubtedly one of the most evident aspects of everyday life.

The emergence of Malaysian national cuisine comes into being with the nation's quest to create a shared identity that signifies solidarity among the diverse social structures of Malaysia on one hand, and a distinctive identity that can be easily recognised by others on the other hand. However, there seems to be a lack of analysis on how Malaysian national cuisine is produced and its possible contributions to the construction of national identity within the multi-ethnic society of Malaysia. The aim of this paper is to conceptualise the framework for the investigation of the emergence of a national cuisine in the multi-ethnic society of Malaysia and its relation to the construction of national identity.

Ethnic diversity and nation building in Malaysia

According to the Department of Statistics Malaysia (2016), ethnic Bumiputera which include the Malays and the indigenous people of Sabah and Sarawak recorded the highest percentage of the country's population at 68.6%, followed by the Chinese at 23.4% and the Indians at 7%. The diverse social construction of the Malaysian society is attributed to colonialism and migration which occurred in the 14th century. The first immigration wave which primarily brought in traders from China, took place during the Malacca Sultanate era (1402-1511) and throughout the period of Portuguese Occupation in Malacca. The Chinese immigration intensified during the British occupation of Malaya (1874-1941). The number of Indian immigrants, who had been migrating to the Malayan areas for generations, had also increased significantly over the same period. These immigrant communities were brought in by the British to perform designated economic roles. The Chinese migrants participated actively in plantation agriculture and mining, and later dominated these two industries. The Indian migrants, on the other hand, were recruited by the British to perform public projects, civic works, and road and rail constructions (Andaya & Andaya, 2001).

Ethnic diversity and ethnic division of labour, created by the colonial capitalism, gave rise to the present multi-ethnic society of Malaysia. This plurality, created over the decades, had brought about diversity and different manifestations in the everyday life of the Malaysian society i.e. economically, politically and culturally. Efforts to establish national unity and identity among these diverse ethnic groups have long been the core of the Malaysian government's endeavour in nation building as the Malaysian social and political life seems to be overwhelmingly intertwined with the ethnic divisions and their attendants.

The construction of national identity and national unity in Malaysia has been largely carried out using top-down approaches and spearheaded mainly by the government. The prime objective of the New Economic Policy (NEP) enacted in 1971 which was subsequently replaced by the 1991 National Development Policy (NDP) was to reduce economic disparities among the ethnic groups and the identification of race through economic function. These policies were aimed at creating conditions for national unity by eradicating inter-ethnic resentment due to socio-economic inequalities. The National Cultural Policy (NCP) was also implemented in 1971 to nurture a constructive manner towards cultural assimilation and the creation of a national culture that is based on three main elements i.e. the indigenous culture, suitable elements from other non-Malay cultures, and the Islamic culture. Nation building campaigns such as *Bangsa Malaysia* (United Malaysian Nation) under the administration of the then 4th Prime Minister Tun Dr Mahathir and the previous *One Malaysia* campaign advocated by the previous government all aspired to strengthen social and national unity, enrich quality of life, and nurture national identity (Saad, 2012).

Construction of national identity through cuisine

The concept of nation, nationalism, nation-ness and national identity is both complex and difficult to grasp. As stated by Anderson (1991), nation-ness and nationalism are "cultural artefacts of a particular kind", and nation is an "imagined political communities" that is both "inherently limited and sovereign". National identity, a manifestation of nationhood, creates a sense of oneness of a nation and implies "an

inclusiveness that transcends sub-national affiliations" (Voon, 2007). A shared national identity, although challenging to build, is imperative as it will give a sense of belonging to its citizens.

Edensor (2002) stated that the study of national identity has always been directed predominantly on the "historical origins of a nation and its political lineaments" (p.1), and there has been very little investigation in terms of how a nation is being characterised and experienced through popular culture and everyday life. In his introduction of *banal nationalism*, Billig (1995) contested the notion that nationalism becomes redundant once the nation state is established, and it only returns in times of crisis. Nationalism is immersed into the environment and the symbols of nationhood such as bank notes and stamps become a part of our everyday lives and we are constantly reminded of our national identity through "routinely familiar habits of language" (p. 86). Fox and Miller-Idriss (2008) attempted to study nationhood by examining the actual practices through which ordinary people engage and enact nation-ness in the varied contexts of the people's everyday lives. According to the authors, a nation is not only a "makeup of macro-structural forces"; it is, at the same time, the "practical accomplishment of ordinary people engaging in routine activities in their everyday lives" (p.537). Hence, the study of nationhood cannot be fully appreciated if it is only limited to examining the "state-sponsored construction, modern industrial context or elite manipulation" (p. 553) as the nation is also embedded in the people's everyday lives.

What we eat, how we eat and where we eat are intrinsically linked to who we are as an individual and as a group. Food is more than just for sustaining our physical well-being; it is also a means for projecting our individual and collective identity as a cultural group or as a nation. In addition to body and landscape, Palmer (1998) relates the concept of everyday nationalism to food, and argues that these are the more apparent symbols of national belonging. Culturally defined food choices and ways of eating are perceived as the characteristics of an individual and a nation. It is therefore interesting to deliberate on how these features reveal information about people and nations; and how these work to strengthen and signify a sense of identity and belonging. Bell and Valentine (1997) also posit that the history of a country's dietary traditions reflects the history of the nation itself, and the history of food often corresponds to the occurrences of "colonialism and migration, trade and exploration, cultural exchange and boundary-marking". They also point out that the fundamental paradox of the food-nationalism equation is that there is no essential national food. The mixing of cultures, patterns of trade and migration have resulted in cuisines that owe their roots to anything but one single nationally defined source. However, Palmer (1998) argues that certain food and foodways continue to be associated with specific nationalities and ethnic groups; and hence, food is not the only means of defining identity but also in how a sense of nation-ness can be "flagged" to articulate the presence of national identity.

What is Malaysian national cuisine and its relation to national identity

The concept of national cuisine and its emergence process can be complex and evolving. National cuisine, as suggested by Chen (2011), refers to dishes that have been accorded with national significance and of which symbolises nationhood (p.316). Political and cultural elements play a very influential role in the formation of national cuisine as a nation is characterised by these two elements. Cusack (2000) stated that a national cuisine is often "built by appropriating and assembling a variety of regional and ethnic recipes

and often reflects long and complex culinary histories as well as domestic ideologies" (p. 207). Feuer (2015) in his study of the Cambodian soup-pot restaurants, defined national cuisine as "the range of foods that are widely known, qualitatively understood, and regularly consumed by urban people of a collective ethnic background" (p. 47).

Reflection on the characterisation of national cuisine reveals that there is very little overlapping of interpretation of the term used which varies according to the context of study. The emergence of a national cuisine in India, according to Appadurai (1988), is fundamentally a post-industrial, postcolonial process in which regional cuisine plays a significant role. The development of a national cuisine in Africa is nurtured by the ruling elites in the interest to build a sense of national identity, part of a nation building project (Cusack, 2004). In Taiwan, the rationale to institutionalise a national cuisine is largely due to the need to create a distinct identity and to differentiate Taiwanese cuisine from Chinese cuisine with the hope that the nation-ness of Taiwan could be articulated (Chen, 2011).

The need to construct a national cuisine in the multi-ethnic society of Malaysia is two-folds. Firstly, it entails the quest to establish a shared national identity, a key priority in the nation building project, through the everyday routine activity of eating among the socially diverse population. Secondly, it aims to build a distinctive national identity based on its unique food culture and image to differentiate the nation from others in this globalised era. Malaysian cuisine, which is believed to have been formed based on the various ethnic cuisines, can be used as an additional asset to promote Malaysia as a gastronomic tourism destination.

Given its diverse ethnic population and cultural elements, the existence of a common Malaysian national cuisine is unclear. However, one can assume that Malaysian cuisine is largely a combination of various regional and ethnic cuisines, reflecting the multi-ethnic makeup of its population. Ishak, Zahari, and Othman (2013) believe that the Malaysian food identity is gradually being formed through the acculturation of the foodways, especially on the part of the Malay ethnic group. The adaptation on each other's ethnic foods through foodways creates a strong belief in the formation of a common acceptable food, and in the long run, in the formation of a national food identity. Suhaimi and Zahari (2014) also indicate that establishing a common acceptable cuisine among the various ethnic groups is considered as the "precursor in the process of building the national food identity". There are many common acceptable dishes available in Malaysia. *Nasi Lemak* (rice cooked with coconut milk), *Roti Canai* (Indian flatbread), *Char Kway Teow* (Chinese name for stir-fried broad rice noodles), *Curry Laksa* (curry soup with noodles) are some examples of these dishes. Despite the fact that these dishes have their own ethnic roots or unique ways of preparation, they have been very well accepted and consumed widely by Malaysians. They have become the iconic features of Malaysian cuisine and often found in restaurants that claim to serve Malaysian food.

As stated in the 1971 National Cultural Policy, the fundamentals of the national culture should comprise elements of the indigenous culture, suitable elements from other non-Malay cultures, and the Islamic culture. If national cuisine is a representative of a nation's culinary traditions and an integral part of national culture, then the national cultural policy must be taken as the underpinning framework when constructing the Malaysian national cuisine. Shamsul (2007) in his discourse of *nations-of-intent* in Malaysia stated that the national identity at the level of *authority-defined social reality*,

which is of the Bumiputera (sons of the soil) hegemony, is the Bumiputera-defined national identity. It is constructed primarily based on the Bumiputera culture and the cultures of other ethnic groups which have only been represented marginally. However, at the level of *everyday-defined social reality*, the Bumiputera defined national identity has been challenged by other ethnic groups. A more pluralised national identity which reflects the nation's social fabric is anticipated and the culture of all ethnic groups in Malaysia should be granted an equal position to that of the Bumiputera.

The two perspectives i.e. "authority-defined" and "everyday-defined" social realities could be in a problematic position in the discourse of national cuisine formation. The former implies that the cuisine of the indigenous people, Malay-Muslim being the dominant group, should be the core of our national cuisine and that the food culture of other ethnic groups can only be represented if they are deemed suitable i.e. in compliance to the halal requirements. However, if we deem eating as an everyday event, then the cuisines of all cultures will naturally have its place in the shaping of the national cuisine.

It may seem that the discourse on Malaysian national cuisine will be dichotomised into the *halal* indigenous cuisine versus other non-*halal* ethnic cuisine; and only the former can be recognised as the national cuisine as the two social realities suggested the mutual exclusivity of these cuisines. However, while the non-Muslim communities can navigate with ease between the inclusive and exclusive foodspaces, there are inclusive foodspaces that allow the Muslim community to patronise and consume other ethnic cuisines that have been adapted to reflect the halal requirements. These cuisines could potentially be included as part of the national cuisine.

To gain more understanding on how the two social realities shape the construction of a Malaysian national cuisine, it is necessary for us to collect empirical data on how Malaysian public agencies project the image of a Malaysian national cuisine. For the authority-defined perspective, the following should be examined:

1. What food has been gazetted as heritage food by the Ministry of Arts, Culture and Heritage?
2. What types of Malaysian foods and how are they promoted by the Ministry of Tourism during its local or overseas promotional fairs?
3. What types of Malaysian foods and how are they served in the official meals organised for foreign dignitaries during their official visits or during Malaysian open houses?

For everyday-defined perspectives, we can look into:

1. The recipes that have been included in cookbooks on Malaysian cuisine
2. The menus that are served in restaurants that claim to sell Malaysian cuisine
3. Food shows and documentaries on Malaysian cuisine
4. Interviews with chefs

Conclusion

In the discourse of national cuisine, it has been a challenge to determine what constitutes the Malaysian national cuisine as different ethnic communities hold different views on how it should be represented. Regardless of what is being advocated by the authorities, the emergence of a Malaysian national cuisine at the grass-roots level involves a constant negotiation between the ethnic communities to agree on a more integrated form of cuisine that is based on the various ethnic cuisines in the country. This is due to the on-going quest for one's individual ethnic identity and the search for a collective national identity. The proliferation of inclusive foodspaces is probably one of the indications of such a call. The oscillation between the inclusive and exclusive foodspaces among the Muslim and non-Muslim communities and their sociological determinants upon investigation may shed light on how the various ethnic communities accommodate and make way for the formation of a Malaysian national identity through national cuisine.

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POSSIBLE COUNTERMEASURE TO REDUCE FOOD LOSS IN JAPAN

Rumi Ide

Abstract

There were 6.32 million tons of food loss in Japan in 2013 [(1)] . The breakdown is 3.3 million tons from food manufactures and businesses, and 3.02 million tons from households. One of the possible countermeasures to reduce food loss in Japan is to change the way of understanding the "Best if Used Before" date of foods among consumers. According to the Japanese food labeling law, food manufactures can omit the date of "Best if Used Before" date and print 'year' and 'month' if the shelf life is three months or longer. But many food manufactures print the date of "Best if Used Before" date, and then wholesalers remove food products from showcases before the "Best if Used Before" date, on the sell-by date that is two-third period of shelf life. This is one of the factors increasing food loss in Japan. To reduce food loss, food manufactures are currently trying to extend shelf life by changing their manufacturing process, packaging materials, etc. On the other hand, most food manufactures set their shelf life shorter than the real shelf life due to their risk management. The Japanese government recommends a factor of safety that is 0.8 or higher of real shelf life to food manufactures. That is why the printed best-before date is normally shorter than the real shelf life. It takes much time to change law or regulations. Both consumers and food industries tend to aim "zero-risk", however it is almost impossible. Consumers have to know the truth of shelf life, not to swallow the printed best-before date but to use five senses. Food manufactures and wholesalers should revise their commercial practice to reduce food loss. Furthermore, other possible countermeasures toward reducing food loss in Japan are also discussed.

Keywords: Food loss, sell-by date, shelf life, one-third rule, food manufactures

Introduction: Current Status on Food Loss in the World

According to the report by FAO, one-third of the food produced in the world for human consumption annually -approximately 1.3 billion tons- gets lost or wasted [(2)] . If it is calorie-based, one-fourth of the food produced in the world gets lost or wasted. The food losses and waste amounts to roughly US$ 680 billion in industrialized countries and US$310 billion in developing countries.

The United Nations Sustainable Development Summit 2015 was held on the 25th of September 2015 in New York and adopted the 2030 Agenda for Sustainable Development. The 2030 Agenda consists of 17 new Sustainable Development Goals (SDGs) [(3)] . The 12th goal is "Responsible consumption, production", related with food-loss reduction. One of the 12 targets is "By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses".

Many countries in the world tackle the issue, and the action of France is epoc-making. France set the first law to ban supermarkets from discarding or destroying unsold foods in the world. Supermarkets have to donate them to food banks or charities. This law applies to all supermarkets with a floor space of 400 square meters or larger. If

they flout this law, they will be fined 3750 Euros. In Japan, NHK (Nippon Hoso Kyokai) broadcast featured this law and introduced a food bank cannot consume all of donations, especially fresh vegetables and fruit.

Current Status on Food Loss in Japan

The latest number of food loss in Japan is 6.32 million tons. Since 2003, the MAFF (Ministry of Agriculture, Forestry and Fisheries) has officially announced the statistical-survey result on food loss several times. According to the MAFF, 19 million tons of food was discarded in fiscal 2013, of which 6.32 million tons were estimated to be edible.

Households are responsible for half of the food loss in Japan, but most consumers believe that food loss is mainly caused by food companies and they are not responsible for it. Among 6.32 million tons, 3.3 million tons come from food companies or wholesalers, and 3.02 million tons from households.

In October 2012, the first Food-Loss Reduction Relevant Ministries and Agencies Meeting was held. In July 2012, four ministries have been assigned to reduce food loss; MAFF, Consumer Affairs Agency, Ministry of the Environment and Cabinet Office. Then, MEXT (Ministry of Education, Culture, Sports, Science and Technology) joined it in February 2013, and METI (Ministry of Economy, Trade and Industry) in August 2013. MAFF and other five ministries have started "National Food Loss Reduction Program" in 2013.

In October 2012, the MAFF started to conduct the "Commercial Practice Study Working Team to Reduce Food Loss". This working team consists of food manufactures, wholesalers and retailers. From 2012 to 2015 they have continued the meeting and trying to change their commercial practice to reduce food loss; for instance, elongation of shelf life.

Among 3R (Reduce, Reuse and Recycle), "Reduce" is the top priority to reduce food loss. In April 2012, MAFF set the Target Values for food manufactures (16 industry types) provisionally to reduce their food loss. This is based on the Food Recycling Law enacted in 2000 and specified in "Reduce" in 3R. In April 2014, MAFF set the Target Values for 26 food industry types to reduce their food loss. In August 2015, MAFF added five food industry types.

Factors increasing food loss in Japan

Food manufactures and businesses

The types of the dates printed in food products in English conforms to USDA website (USDA: United States Department of Agriculture) as follows [(4)].

Types of Dates

- A "Sell-By" date tells the store how long to display the product for sale. You should buy the product before the date expires.
- A "Best if Used By (or Before)" date is recommended for best flavor or quality. It is not a purchase or safety date.
- A "Use-By" date is the last date recommended for the use of the product while at peak quality. The date has been determined by the manufacturer of the product.

"Use-By" date and "Best if Used Before" date

Japanese consumers tend to confuse "Use-By" date and "Best if Used Before" date. Figure 1 shows the difference between "Use-By" date and "Best if Used Before" date. According to the Japanese food labeling law, food manufactures can omit the date of best-before date and print 'year' and 'month' if the shelf life is three months or longer. But many food manufactures print the date of best-before date, and then wholesalers remove food products from showcases before the best-before date, on the sell-by date that is two-third period of shelf life. This is one of the factors increasing food loss in Japan.

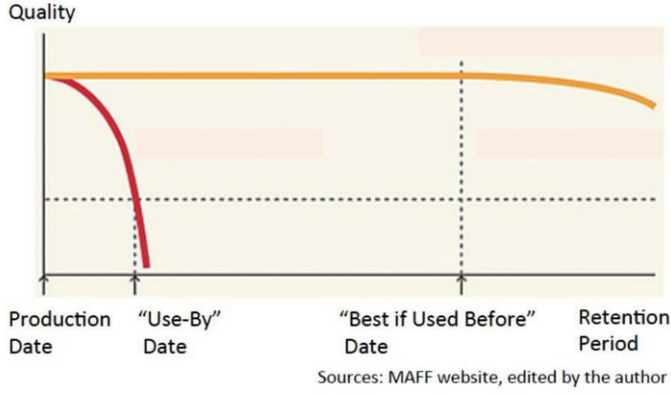

Figure 1. Difference between "Used-By" and "Best if Used Before" Date

One-third rule

The period starting from the production date of food products to the end of shelf life is divided into three periods of equal length. Food manufactures or wholesalers have to deliver products to retailers during the first period (deadline for delivery), retailers have to sell them during the second period (deadline for sales) and consumers have to

consume them during the last period as shown in Figure 2. One-third rule is responsible for the food loss. We divide the period in which a food tastes best into three equal parts. A food manufacturer must deliver products to supermarkets/convenience stores by the end of the first period. Supermarkets and convenience stores have to sell products by the end of the second period. If it is late, they have to return or discard products. The annual loss cost is 123.5 billion JPY. Regarding The Distribution Economics Institute of Japan, the deadline for delivery in U.K. is three quarters of the period in which a food tastes best, two-thirds in Italy, France and Belgium, One half in U.S. and one-third in Japan.

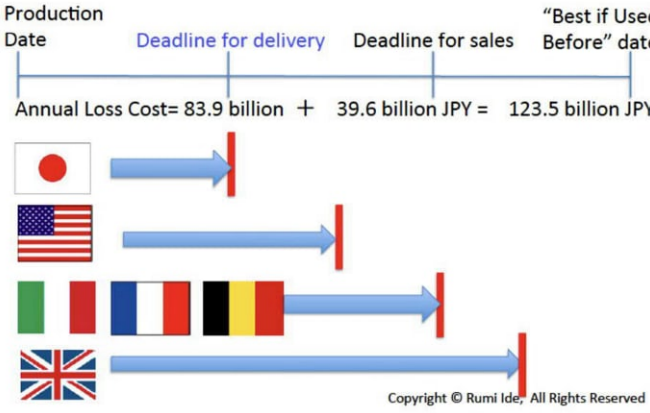

Figure 2. One-third Rule

Other factors

1) Broken package: If a cardboard box is broken, it cannot be distributed as a marketable food product. Wholesalers return or discard it.
2) Printing error of food claims: When there are some printing errors on food claims, wholesalers will remove them from shelves.
3) Partially used foods for food inspections: Generally food companies do food inspections every day. They use partially their products for inspections, then discard the rest.
4) Earlier disposal of daily-delivered foods than "Used-By" date or "Best if Used Before"date: Meats, fishes, eggs, milk, yogurt, sausages, cakes, natto (fermented soy beans), tofu (soybean curd) etc.
5) Seasonal products and limited-quantity products : Christmas cakes, Halloween cakes, etc. are seasonal products. When these are unsold, supermarkets or convenience stores discard them or return to food manufacturers.
6) Products for limited convenience stores: Products for supermarkets and products for convenience stores sometimes vary in size. Products for convenience stores should be

smaller than products for supermarkets. The area of convenience stores is narrower than supermarkets. Regular items of convenience stores must be marketable. If it is not, convenience stores remove the items from shelves.
7) Non-standard products: There are strict standards in Japanese food industry. If it does not meet the standards, it cannot be sold.
8) Leftovers at restaurants: If a serving size is too much to put on the plate, it will be discarded.

Households

Consumers are responsible for food loss reduction. They have to know the truth of shelf life.The main reasons of food loss at households are excessive removal (skins of vegetables, fat on meat, etc.), too much purchase, too much cooking, leftovers at home, partially used food, food gone off (taste bad, smelt bad, looked bad, etc.), passed its best before date, etc. Regarding the White Paper on Consumer Affairs 2014, the combined percentage of those who "know well" and "somewhat know" about is 64.5% [(5)] . Asahi Newspaper Agency took a survey on food loss from the 17th to the 30th of August, 2016 (n=398) [(6)] . The questionnaire contains 'When do you discard foods?'. The top answers were 'Trying not to discard' 50.0%, 'Worry about Use-By Date or Best if Used Before Date' 20.9% and' Leave a plate of food unfinished' 9.8%.

Possible Countermeasures

Food manufactures, wholesalers and businesses

Omitting the date from "Best if Used Before" Date

According to the Japanese food labeling law, food manufactures can omit the date of "Best if Used Before" date and print 'year' and 'month' if the shelf life is three months or longer. But many food manufactures print the date of "Best if Used Before" date, and then wholesalers remove food products from showcases before the "Best if Used Before" date, on the sell-by date that is two-third period of shelf life. This is one of the factors increasing food loss in Japan. From January 2009 up to October 2015, 324 processed foods have omitted the date of best-before date.

Extending the period of shelf life

To extend the period of shelf life, many food manufactures are trying to change their manufacturing process, packaging materials, etc. From January 2009 up to October 2015, 1,320 processed foods have been extended their shelf lives. For example, since April 1st 2014, Nissin Foods Holdings Co., Ltd. and Myojo Foods Co. Ltd., noodle manufacturers, have extended the shelf life of noodles. They could change their packaging materials. In January 2016, KEWPIE Co., a mayonnaise manufacturer, has announced that they have extended the period of shelf life of mayonnaise from 10 months to 12 months.

Factor of Safety

To reduce food loss, food manufacturers are currently trying to extend shelf life by changing their manufacturing process, packaging materials, etc. On the other hand, most

food manufacturers set their shelf life shorter than the real shelf life due to their risk management. The government recommends a factor of safety that is 0.8 or higher of real shelf life to food manufacturers. That is why the printed "Best if Used Before" date is normally shorter than the real shelf life. The Japanese food sanitation system and many kinds of standards are superior, however, it is often too strict.

Tolerance to a broken package, trifling mistake on package claim (e.g. closing date of a campaign)

Most of Japanese wholesalers deny a broken package even it is a slight damage. Tolerance to a broken package is needed. Most of Japanese consumers and retailers do not allow trivial mistake on package claim, e.g., due to the closing date of a campaign. Tolerant attitude should be sought.

Reduce overstock, the number of SKU (Stock Keeping Unit) and Narrow down seasonal products

It is difficult for food manufacturers to manage a lot of SKU. The sales of seasonal food products depend on a variety of factors; weather, temperature, humidity, price, consumers' preference, etc. The Japanese supermarkets and convenience stores do not accept "shortage". They impose "shortage penalty" to food manufacturers. When a shortage happens, a food manufacturer must pay compensation for lost of sales opportunities. That is why supply tends to excess demand. Supermarkets and convenience stores should narrow down seasonal products, especially foods that do not keep for long. The typical examples are Eho-maki Sushi Roll sold on the 3rd of February, and Una-ju (cooked rice topped with grilled eel) sold on the day of the ox in midsummer (the end of July).

Repurposing a rest of food inspection

Most of food manufacturers and food analysis organization discard the remains of food inspections. There is a room for them to repurpose the remains of food inspection. Food manufacturers utilizes the remains of food inspections. They keep in a freezer for a few months then donate these remains to children's home through a food bank.

Deregulation of one-third rule

Japanese rule is the most strict and easy to cause food loss. The Japanese government and food industry are trying to improve this rule to reduce food loss.
The Japanese government and 35 food manufacturers has done the pilot project to reduce food loss from August 2013 to March 2014. They extended the deadline of delivery from one-third to one-half. They estimated that we could reduce 40 thousands tons of beverages and confectionaries loss that are equivalent to 8.7 billion Japanese yen. On the basis of this result, eleven supermarkets and convenience stores reviewed the current deadline of delivery.

Utilizing the weather information

"Weather Merchandising" is to utilize the weather information for purchase, display, etc. The Japan Weather Association has implemented the project to reduce food loss. The JWA gives the data on weather to food manufacturers, the food manufacturers

utilize the data for production planning. A certain food manufacturer could reduce 30% of food loss versus last year.

Donation to food bank

Food banks are part of the emergency food system; organizations that act as wholesale agents by collecting food donations from food drives and corporate sources and distributing them to member organizations such as food pantries and soup kitchens(Guptill et al., 2013). In the USA and Canada there are lengthy histories of charitable emergency food provision and a range of research literature around its origins, development and effectiveness (Poppendieck, 1998; Tarasuk, 2001). On the other hand, the first food bank in Japan was launched in 2000 and nowadays there are approximately 40 active food banks nationwide. MAFF encourage food manufactures to donate food bank to reduce food loss.

Households

Most of consumers make possible efforts to consume foods that they purchased, but they do not try to purchase foods with short shelf life at the same price. At supermarkets or convenience stores, they pick out foods with a long shelf life. The National Association of Life Industry and Consumer Organization (*Seidanren*) took a survey on food loss in 2013 (n=1683) and 37.3% answered that they do not worry about close-out sale of short shelf life even it is "Use-By" date products [10] .They purchase because the price is cut. One of the possible countermeasures to reduce food loss in Japan is to change the way of understanding the difference between "Use-By" Date and "Best if Used Before" Date of foods among consumers.

Conclusion

It is not realistic to change the law or regulation on shelf life. It takes much time to change law or regulations. Both consumers and food industries tend to aim "zero-risk", however it is almost impossible. Consumers have to know the truth of shelf life, not to swallow the printed best-before date but to use five senses.

Endnotes

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POLITICS OF FOOD: THE PROCESS OF GASTRONOMISATION IN MALAYSIA

Eric Olmedo

Abstract

A rapid survey of the global restaurant scene shows that there is little presence of Malaysian "gastronomic" restaurants around the globe. One is tempted to ponder on the causality of such a fact, which implicitly validates the assumption that possessing gastronomy matters. The social functions of gastronomy vary from one country to another: it may serve as a tourism pulling factor as advocated by the rise of the culinary tourism phenomenon, or being politically instrumental as a form of soft power in the context of international relations. In postcolonial countries such as Malaysia, gastronomy is often correlated with the quest for a national identity as well as with the process of cultural decolonization. It is at this point that the concept of gastronomy becomes problematic, both etymologically and epistemologically. Literature shows that the term "gastronomy" is polysemous, and therefore its episteme may blur the boundaries with competing concepts such as "cuisine" or "fine dining", with or without nationalistic features. I wish here to segregate the construct of gastronomy from that of national cuisine, by calling upon the anthropological framework of high versus low cuisine. This paper argues that being endowed with high cuisine produces a symbolic capital that instils soft power in the realm of international politics. I also contend that Malaysian gastronomy can be "invented" in the sociological acceptance of the term, but not without prior in-depth historical and anthropological investigation. The presented research suggests a methodological framework to enable the process of gastronomisation for Malaysia, using comparative analysis with the French experience.

Keywords: Gastronomisation, Malaysia, soft power, high cuisine, methodology.

Introduction

There are very few restaurants in Malaysia that venture into claiming that what they offer to patrons reflects actual Malaysian gastronomy; this claim is however not that straightforward. The first of such places would be "*Bunga Emas*" ("golden flower" in Malay; a potent symbol for Malay weddings), which claims to be the city-centre's first fine-dining restaurant set in a 5-star hotel. This phrase probably refers to the absence of fine Malay cuisine in other five-star hotels in Kuala Lumpur, where only Western, Chinese, or Japanese restaurants are entitled to use the label "fine dining". Malay cooking is generally relegated as one of the components of the buffet spread, served at coffee houses. The second dining outlet, "Bijan" (Malay for "Sesame"), is a restaurant on its own (not set in a hotel), which advertises on Fine Malay Cuisine, and interestingly enough, serves wine. From the latter we can deduce that Bijan targets non-Malay eaters (members of the Malay social group being constitutionally Muslims avert to the ingestion of alcohol) and most probably non-Muslim foreign tourists as a priority. The third one named "Enak" (ironically 'delicious' in Indonesian language) also authenticates itself as a 'Malay Fine Dining Restaurant", endowed with contradicting messages such as "first of its kind" (when "Bijan is historically the oldest Malay Fine Dining outlet in Kuala

Lumpur) and declarations that it "makes you feel right at home – no airs, no hype, none of that pretentious 'haute couture' feeling." The fourth one is "Songket" (songket is a silk or cotton fabric, usually intricately patterned with silver or golden threads in the Malay culture, and used as part of the Malay traditional attire). Although local press may have bestowed Songket restaurant as a "fine dining" outlet, the restaurant itself does not use the term in their self-advertising, rather preaching for "leisurely meals". To my knowledge, there are no other restaurants that compete in the fine dining arena in Malaysia. It is also notable that the rise of Malay fine dining is a relatively recent trend, as the oldest of these restaurants only opened in 2003.

If one performs a Google search on Malaysian restaurants overseas, one will probably notice two recurrent patterns: (1) the vast majority of these restaurants are located in Australia and New Zealand, a minority in the UK and an even smaller minority in the USA, and (2) none of these restaurants labels itself as a fine dining outlet.

What does this rapid introductory inventory tell us? As brief as it is, one can already detect potent elements that would help design the framework of this research.

Problematization

The first significant preliminary finding is that all sophisticated forms of culinary systems are ethnic-bound. An entry in Google engine search worded as "Malaysian Fine Dining restaurants" is instantly redirected to "Malay" Fine Dining outlets, as per the ones cited above. We may easily encounter Malaysian Chinese Fine Dining restaurants, or even Indian Fine Dining restaurants (offering Northern or Southern Indian cuisine or both), but it seems as if no Malaysian Fine Dining restaurant can be traced on domestic soil, or overseas. This first indication leads naturally to a simple working hypothesis: Malaysian gastronomy does not exist – or, at least, not empirically.

In order to confirm such a hypothesis as well as to understand the factors that prevented the rise of Malaysian gastronomy to this day, I suggest the following roadmap: (1) conduct the "archaeology of the concept" (Foucault, 1969) of gastronomy, and investigate its alleged synonymy with the notion of "national cuisine"; (2) review and analyse the historical process of gastronomisation in France; (3) assess the degree of transferability of the French experience into the Malaysian context; (4) identify longitudinally the sociological dissimilarities that might have prevented the process of gastronomisation in Malaysia; (5) conceptualise the uniqueness of Malaysia as a product of history; and (6) reverse-engineer a gastronomisation matrix, articulating uncovered food history and modern sociological variables, thus enabling the invention of Malaysian gastronomy.
This paper explores both the contents and feasibility of the six steps cited above, in order to transform this roadmap into an actual plan of action.

Gastronomy vs. National Cuisine

The French term "*gastronomie*" takes its roots from Ancient Greek, and started appearing sporadically in French language throughout the 17th century; but it was Joseph de Berchoux who popularized the term in his long poem entitled '*La Gastronomie*' published in 1801. According to the "*Academie Française*" (the Institutional Body that

looks after the French language), a suitable definition would be: "Sum of rules that constitute the art of preparing and enjoying good food."[1]

When we think of Gastronomy, we usually think of "Fine Dining" in popular discourse, as it echoes the notion of dining etiquette, therefore 'rules' ('*nomos*'); but the term does not shed light on what gastronomy means for society.

For the sake of the present anthropological investigation, I tend to favour the usage of the term "High Cuisine", a construct coined by the British anthropologist Jack Goody (Goody, 1982). Goody uses the dichotomy High/Low cuisine to illustrate the stratification of the society. At times, Goody uses interchangeably the terms "High Cuisine" and "Haute Cuisine".

The process of gastronomisation in France

The French experience has not been chosen at random. According to food historian B.W. Higman, "the word *cuisine* is French and it is the French who have the greatest claims to achievement in this domain, elevating its superior versions to the status of *haute cuisine*, carefully distinguished from la *cuisine bourgeoise* […]" (Higman, 2012: 164).

The Middle Age

For the aristocracy trained in military affairs, cooking was a matter of logistics. Such tasks were assigned to squires. A squire who became a famous cook was Guillaume Tirel, nicknamed "Taillevent". He became the Chef for the French King Charles VI in 1365. Taillevent gives us a very good idea of the Middle Age cooking. In the Middle Age, popular imagination was shaped at the crossings of Religion and Magic. Alchemy was therefore an attractive 'science' at the time, and Guillaume Tirel was clearly an alchemist. One can see alchemists' symbols on his coffin in his grave. Alchemy is about the transformation of matter; and cooking is the process of transforming. The quest of the alchemist was to capture the "essence" of the food and put it into the sauces, which were termed at the time as "liquid gold". Today, these sauces are the legacy of the Middle-Age.

The Renaissance

During the Renaissance, cuisine became grander: emphasising on the aesthetics and the décor and the service; mainly to please the King, who was the embodiment of God, as per Louis XIV in Versailles (the "Sun-King") whose aura was supposed to shine upon every subject. And so was the French Cuisine, of which role was to reflect the aura of the King. Needless to say that the radiance of the French Cuisine was reserved for the aristocracy.

After the "Ancien Régime"

The former Valets and Maîtres d'hôtel of Royalties went unemployed after the French Revolution. Their masters had fled into exile in England, Germany or Switzerland. Some of the valets who stayed opened their own "restaurants". After the Revolution, restaurants blossomed and recreated the Royal Cuisine for the Bourgeoisie. This was the particular process of "gastronomisation" that gave birth to French Haute Cuisine. Goody (1982)

went beyond the French Experience and studied the Chinese and Arabic as well, which belong in his view to the high cuisine category. According to Goody, for a culinary system to become a "High Cuisine", it must first account for four pre-requisites:

1. Availability of ingredients (local or imported);
2. A sizeable group of adventuresome and critical eaters: a social elite, but not limited to the palace;
3. Hedonist attitude, which cannot be socially condemned; and
4. High development and agriculture and commerce.

(Goody, 1982: 98)

I will now endeavour to apply this analytical grid to the Malaysian experience.

The Malaysian Experience

There is little reference to a court cuisine at the times of the Malacca Sultanate in the fifteenth century. In the "Malay Annals"[1], there are only six entries referring to food, in brief and simple terms. Food could nonetheless signify stratification in old Malay kingdoms: The custom of "*Isti'Adat Sudun*" (the right to eat together from the same tray) was a constant feature of the Royal court in various sultanates. "Those who are entitled to partake of food from one and the same "*hidangan*" (a tray of dishes) are the *Yang Di-Pertuan Muda* (the King*)*, *Raja Muda* (the Crown Prince*)*, and *Bendahara* (the Vizier) (Alwi, 1962: 76). Even until today, when common Malaysian people eat, they "*makan*", but when the King eats, he "*santap*" (the *Bahasa Istana*) (literally: "language of the palace)."

We are not certain to this day if the Royal Court Cuisine was ever documented. Some scholars argue that Islam's ascetics are not compatible with hedonism, but we do have evidence of Arabic cookbooks describing "Court Cuisine" from the Abassid dynasity, after the conquest of Persia by the Arabs.

And if there was such thing as a Royal Cuisine, why didn't it cross the boundaries of the palace?

Plausible factors that prevented gastronomisation in Malaysia

Civilisation stratum and Colonisation

In 1929, Marcel Mauss coined the concept of "civilisation stratum", which is equivalent to the form of civilisation shaped in a specific geographical area over a specified period of time (Mauss, 1929: 12). As problematic as it may be in its empirical embodiment, this construct proves itself useful as an analogical tool to understand both the conditions and threats to the process of gastronomisation in Malaysia. If we compare what is generally termed as "civilisations" in the geographical areas of France, China, and Peninsular Malaysia in the light of Mauss' concept, the Malay civilisation termed as the "Malacca Sultanate" appears short-lived compared to the "Chinese Civilisation" (from the Qin to the Ming Dynasty) and to either the Gallo-roman or Frankish civilisations that flourished in Western Europe.

The Malacca Sultanate was founded around 1400 EC and conquered by the Portuguese in 1511. We can reasonably think that the Sultanate would have continued controlling the spice and silk trade in the straits of Malacca, therefore securing enough wealth and political stability to develop further a "Malay" civilisation, refining its culture as well as its gastronomy, if the civilizational process had not been abruptly interrupted when Alfonso de Albuquerque sailed in those waters at the beginning of the sixteenth century.

A Particularistic Societal Model

The production of ethnicity in British Malaya had been encapsulated into the construct of "plural society" (Furnivall, 1939) by colonial administrator John Sydenham Furnivall (1878-1960). In short, Furnivall described the association of ethnicity with occupation, designed to serve the economy of the British Empire, which ultimately led to the ethnic polarization between local social groups and imported labours.

Today, ethnic boundaries remain, as ethnicity now stands as a socio-political category in the national census and is assigned to Malaysian citizens, rather than ascribed: the ethnic divide renders the acceptance of the *idea* of a Malaysian gastronomy much more challenging.

Decentralisation of Power

The process of civilisation has been generally analysed through territorial conquest, tangible heritage, and cultural productions, whether individual (arts and literature) or collective (laws and governance systems).

The German philosopher turned British citizen Norbert Elias took a bold course by studying the court etiquette and table manners of the French Royal Court from the Middle-Ages to the Renaissance. At the risk of over-simplifying his system of thoughts, his theorization of the civilising process may contain several key pointers: the territorial competition between the feudal lords could only end in a situation of hegemony. Larger domains had appeared up until the formation of the kingdom of France. From the fifteenth century onwards, the State took hold of the fiscal monopole. Together with the fiscal monopole came the 'violence' monopole (control of a centralised army and police). From then on, the behaviour of courtiers became more controlled and reflective; The French aristocracy needed to please the King to acquire social mobility: this "court rationality" marked a major step in the development of civilisation (Elias, 2007: 250) part of which was the development of a royal cuisine.

At the opposite end, Malaysia is a recent geopolitical construct. Current border delimitation dates back to 1965. Until the genesis of the first Federated Malay States under the British influence in 1895, Peninsular Malaysia harboured a mosaic of Malay kingdoms, which eventually became the Malay states, and then the states of the Federation. After achieving independence in 1957, the council of rulers opted for a federation model over a union model, which casted a relative degree of decentralisation of power in the modern Federation of Malaysia.

The three factors indicated above (thin civilisation stratum, particularistic societal model, and power decentralisation) probably constitute the main causalities that prevented the formation and the diffusion of a court cuisine throughout the current Malaysian territory.

Malaysia finds itself today in a situation of "Gastro-anomie" (Crowther, 2013) i.e. a sense of food-culture insecurity.

Suggesting a Gastronomisation matrix for Malaysia

Four pillars sustain the architecture of the Gastronomisation reconstruction matrix in Malaysia: three acknowledgements and one investigative methodology.

Acknowledging the historical continuum

Epistemologically speaking, we need to include the pre-colonial, colonial, and post-colonial eras in our temporal framework, so that the notion of Malaysian gastronomy is neither conceptually nor politically truncated.

Acknowledging duality between National Cuisine and Malaysian Gastronomy

National cuisine is the merger of high and low cuisine under a nationalistic paradigm. Gastronomy is the symbolic representation of Malaysian Haute Cuisine outside of the borders of Malaysia, thus becoming an instrument of soft power.

Acknowledging the existence of a Religious Canopy in Malaysia

Islam is the official religion of Malaysia, not the State religion. Subsequent freedom of cult enables the co-existence of various dietary requirements informed by religious ethics. Spaces of integration fall nonetheless under a sacred canopy (Berger, 1990) – the Islamic canopy – substantiated in the form of the Halal seals on selected eateries. These outlets incarnate social inclusivity in the sense that all social groups in Malaysia may patronize these dining outlets without compromising on their usual eating habits.

Investigative methodology: Conducting a bi-dimensional nation-wide survey

Dimension 1: historical survey to re-construct Malay Royal Cuisines. In other words, getting access to domestic (state sultanates records in present palaces) and foreign archives (accounts of embassies and envoys to Malay kingdoms available in China and the Middle-East) as well as colonial archives in the Netherlands and the United Kingdom.

Dimension 2: anthropological survey to reconstruct low Malaysian cuisines. Practically: conducting interviews with home cooks, long-established eatery owners or cooks in all Malaysian states. We would supplement these primary data with the retrieval of old cookbooks and family recipes.

This tentative matrix to structure the reverse engineering of a gastronomisation process for Malaysia is still generic and needs to be challenged, as well as enriched, throughout its heuristic path.

Conclusion

As the emergence of a national cuisine often correlates with a quest for cultural decolonisation, national culture making (Appadurai, 1988), and therefore feeding nationalism sentiment, the precedence of constructing a Malaysian national cuisine over defining Malaysian gastronomy is of utmost importance, if one does not want to face the risk of promoting a Malaysian gastronomy that rings hollow.

Nye argues that "if military power could be transferred freely into the realms of economics and the environment, the different structures would not matter, and the overall hierarchy determined by military strength would accurately predict outcomes in world politics" (Nye, 1990: 159).

Temptation could be grand for the Malaysian Foreign Policy to opt for a "seduction operation" thus exporting an exoticised version of Haute Malay Cuisine, in lieu of Malaysian Gastronomy. Results would be disastrous, as it would show the world the disunity of the Malaysian societal model through the lens of soft power.

Such a perceived weakness would impact negatively the global or regional balance of power as far as the Malaysian Foreign Policy is concerned. Malaysia should therefore be in a position to showcase a historically and socially informed gastronomy as leverage for soft power in international relations. That is why Malaysian National Cuisine, although conceptualised through a religious canopy paradigm, must imperatively appear as socially inclusive, so as to stand as the foundation of Malaysian gastronomy.

Endnotes

1. In: *Dictionnaire de l'Académie française, huitième édition*, 1932-1935.

2. The Malay Annals (in Malay "*Sejarah Melayu*"), believed to have been written between the 15th and 16th century, was originally titled "*Sulalatus Salatin*" (*Genealogy of Kings*): it is a literary work that gives a romanticised history of the origin, evolution and demise of the Malacca Sultanate.

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CONCLUSION PART 1

FOOD POLITICS

Feeding close to 8 billions humans on the planet involves making choices, and therefore constitutes a political act. Food politics are often confused with public policies, which represent only one tenet of the dialectics of food and politics. Food politics were not born yesterday. During prehistoric times, tribesmen would bring back carcasses from their hunting party and threw them near the open fire; decisions needed to be made on what portion of the food should be cooked and how much of it should be stored for the survival of the tribe. This simple binary choice became more complex when, with time, some of the tribesmen claimed that they could talk to the dead. They set themselves gradually apart from the tribe, or more exactly *above* them, and started demanding premium food as part of their entitlement. These shamans had made the distinction between the profane and the sacred, and this distinction had to be materialized with unequal partaking of food. Social stratification had begun, with food as the main cultural marker. Such segregation became more codified as civilization advanced; we think of Athenian democracy and its famous banquets within the walls of the City, where service, carving and even seating were ritualized. Rome pushed the etiquette much further and invented a "grammar" of food where each foodstuff was assigned a different status. Elites had their own meals, such as the *prandium*, (late breakfast or luncheon), which was virtually the ancestor of our very modern "power breakfast", at times complemented in splendid fashion with the hosting of a *convivium* (feast held in the *domus*, or inside the host's house) where seating allocation would reflect social status.

When the Romans invaded Gaul, they found themselves shocked by the dining etiquette of the Gallic aristocracy. Noblemen held banquets for days in a row, as it was their duty to feed for the aristocracy to feed their people, but also to *waste* food in order to preserve their social status.

Segregating the community from inside was not enough: boundaries had to be erected to differentiate oneself from the other. Again, food would play a major role in order to segregate friend from foe. In pre-Islamic Middle East, skirmishes often occurred between pastoralist nomadic tribes and sedentary communities breeding pigs. Nomadic tribes would often be victorious in battle; they would then apply beliefs and preconceptions of the time, i.e. "not copying eating habits of the enemy" (Schwabe, 1996: 73), belief reinforced by natural incompatibility between nomadism and pig breeding. In such cases, institutions can manipulate food symbolizing the demarcation line, whether religious or secular, as brilliantly demonstrated by Liz Chee when exposing the oscillating status of the shark fin, between Chinese-ness and Japan-ness throughout World War II. After the end of cold war and its need for potent symbols of hard power, the concept of "soft power" emerged in an attempt of re-balancing international relations across the globe. As we have seen with Olmedo's chapter, perceived distribution of soft power through the lens of gastronomisation was more of a condescencing act than an authentic endeavor toward fairness. Concurrently, the "green revolution", which is - simply put – not more than agro-capitalism, didn't do much to alleviate equal distribution of food. In Northern America, scholars have pointed out the existence of "food deserts": western academic literature is flooded with papers examining correlation of racialized neighbourhoods with poor diet, leveraging especially on the notion of food deserts where residents have little

to no access to healthy and affordable food (see Cummins and Macintyre, 2002; Wrigley et al. 2003). In the USA, Black neighbourhoods often embody typical characteristics of food deserts, where "it is easier to get fried chicken than a fresh apple" (Brownell & Batlle Horgen, 2003). Kwate argues that "in general, empirical research demonstrates an association between low area income and fast food prevalence in the US (Burdette & Whitaker, 2004: Stewart and Davis, 2005) and internationally" (Kwate, 2008: 36).

Acknowledging that food supply and distribution obeys the laws of economic globalisation, it may prove pragmatic for consumers to get organized at meso and micro levels of society, and engage into forms of resistance. We have been witnessing the birth of movements such as "slow food," "locavorism", "alternative food networks" and the concept of "food justice". Since the times of Merovingian banquets, resources have depleted and we cannot afford food waste anymore (cf. Rumi Ide). According to the social historian of food, Paul Ariès, prehistoric men enjoyed a more diversified diet than people living in the 19th century (Ariès, 2016); hypothesis that is echoed by another thesis: the reduction of species' diversity. The aforementioned alternative movements of food politics may succeed to empower consumers if they abide by two simple principles: (1) keep being socially and culturally inclusive; (2) act upon set of values instead of dogma. The sustainable combination of both has proven to be a great challenge in the history of mankind.

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PART 2: FOOD AND IDENTITY

INTRODUCTION

Contemporary foodways and identities are, in large measure, the product of a long history of colonial encounters (Dietler, 2007). The intimate links between food practices and the embodiment of identity, and between commensality and politics have made food a central arena for the working out of colonial struggles of various kinds (Dietler, 2007). Food can be based on other foundations, such as ethnic, regional, local, gender, or generation (Ichijo & Ranta, 2016). When human beings convert some part of their environment into food, they create a peculiarly powerful semiotic device (Appadurai, 1981). Despite the long history of studying food and consumption within anthropology however (Mintz & Du Bois, 2002), little study has been made of the long-standing association between food and ethnicity (van den Berghe 1984). The issue of interpreting 'race' has also been problematised (Slocum, 2011). Van den Berghe (1984) concludes that food is a paradigm of ethnicity, where the boundaries of the familiar become known only through contact with the unknown. To address this lacuna, we dedicate this section to examining the processes of food production and consumption that feed into (no pun intended) the conception of social identities.

Beh May Ting questions the significance that space has on how societies use the seemingly mundane act of eating, not only for self-sustenance but also for lifestyle expression in the paper "Space, Identity, and Foodscapes in the Coffee Houses of Penang, Malaysia". She investigates the long-term process of lifestyle change in traditional and contemporary spaces of food consumption and production. Beh charts the emergence of third wave cafes in Penang amidst the ongoing popularity of traditional coffee houses and international coffee chains.

Lee Han Ying and Soon Pau Voon examine Hokkien Mee as the axis of social integration in their paper "Hokkien Mee: A Case Study of Social Integration in Klang Valley, Malaysia". They elaborate upon the Hokkien-Chinese ethnic group and its expressions of Hokkien ethnicity, despite Hokkien Mee's untraceability to Fujian, the place of origin of Hokkien Chinese. Lee and Soon view this phenomenon within the lens of "foodscapes", where Hokkien Mee in Malaysia has been continually redefined to suit the needs of non-Chinese consumers in Malaysia as well, suggesting social integration.

Cai Qing uses the Mid-Autumn Festival celebrated by the Chinese to explore how discourses of functional food and celebration food are constructed in the media, in the paper "When Chinese Food Meets Consumerism: A Case Study of the Representation of Mid-Autumn Festival Food in Hong Kong Media". Cai uses the Yin-Yang theory derived from Chinese natural philosophy to illustrate how festival food culture is constructed under a holistic scope. A comparison is also made between representations of functional food in advertisements and news articles to distil its impact on public perception of festival food culture.

Christopher M. Joll meanwhile, examines the practice of food as gifts in increasing one's merit within the Muslim economy of merit in his paper "The Role of Food in Thailand's Muslim Economy of Merit". He explores how food is gifted with sincerity to a worthy recipient and with an intention for merit. Joll argues that this is the internal logic

for certain forms of ritual fests performed by Muslim communities throughout Southeast Asia and beyond.

Finally, **Theodora Nziza Nyambo** wraps up the significance of using food to create meaning in the paper "Food in Migration: In Search of Meaning". Nyambo uses the concepts of memory and cuisine to highlight complexities within these terminologies, in discussing life as "the other". She draws upon her own experience in her attempt to belong to an "imagined community", that of the Chagga foodway in Tanzania, East Africa, challenging anthropologists and other players in food-related sectors.

This collection of papers features the authors' interpretations of ethnicity or race, and their explorations of how these concepts tie up with other significant aspects of life, providing richness from an intersectional perspective.

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FOOD IN MIGRATION: IN SEARCH OF MEANING

Theodora Nziza Nyambo

Abstract

Food has been acknowledged as a vital tool used to retain culture especially in immigrant cases. This paper touches on concepts such as memory and cuisine bringing to light the complexities that these terminologies bring when discussing life as the "other". The author draws upon personal experiences formed from childhood food memory, with a base of the Chagga in Tanzania East Africa food way, in an attempt to make a sense of belonging as a 26 year old who was then seeking to belong to a specific "imagined community" and be able to share a story of belonging through food memory. It becomes clear that discussing immigrant food ways raises even more complexities and questions. This is due to the fact that memory has been acknowledged to create "a shaky ground for truth based on subjectivity" whereas cuisine is said to be a cultural invention, whose sense of imagined community is questioned. Therefore, can one really claim that they belong to a specific imagined community? This paper challenges anthropologists as well as other players in food related sectors to explore more this particular discourse for a clearer understanding of several key issues.

Keywords: Food ways, food memory, migration, cuisine, culture

Introduction

Food is an important tool used to retain culture especially in immigrants, due to its ability to allow expression as well as to solidify social relations between groups (Mankeker, 2002). Drawing upon personal life experiences, this paper aims to highlight the complex food-way discussions based on concepts that memory and cuisine pose in the lives of immigrants. In order to draw on these complexities, I will first introduce the food-ways of East Africa, focusing more on the food-ways of the Chagga tribe from Kilimanjaro – Tanzania, which forms the base of my "food memory".

Osseo-Asare (2005) notes that discussing food culture in Eastern Africa (Kenya, Uganda, Tanzania, Eritrea, Ethiopia, Djibouti, Somalia and Sudan) is challenging and depends on how one captures the region.

Tanzania Food culture

Otiso (2013) refers to Tanzania as having a rich cuisine influenced by various factors: trade, ethnicity, religion, colonization, race and tourism. The Kirua- Vunjo, Moshi region whose food-ways I draw upon is pre-dominantly occupied by the Chagga. Ogutu (1972) describes the land of this mountainous area as fertile, with plenty of water. Food items consumed consist of a variety of yams, bananas, maize, rice, and green leafy vegetables. On the Tanzanian government portal, local food is described as: *carbohydrate—corn, rice, cassava, sorghum, or plantains. Plantains are preferred in the northwest, ugali (a thick mash of corn or sorghum) in the central and southwestern regions, and rice in the south and along the coast. The staple is accompanied by fish, beef, goat-meat, chicken or mutton stew, and/or by several types of vegetables including beans, leafy*

greens such as spinach, manioc leaves, chunks of pumpkin, or sweet potatoes. Indian food such as chapatis, samosas, vegetable or meat-filled pastries; and masala, a spiced rice dish are widely available in all urban areas. Question is: is there a real Tanzanian cuisine?

The above caption captures some of the dishes available that are consumed and recognized by the government body. However, with more than 120 recognised ethnic groups, some ethnicities may feel cast out from this description. It also goes to show that the government as a national body has not made initiative to recognize any specific dish as a "national cuisine". What does this mean for a Tanzanian like me living in the diaspora? What food should we use to authenticate our sense of belonging to the Tanzanian community?

Food in Migration

According to Palmer (1998), food, landscape and the body, are important aspects that contribute to both individual and collective identities. In this section, I attempt to highlight the evolution of my food journey that took place from the perspective of an immigrant.

Mintz (1985) contends that "people who eat strikingly different foods or similar foods in strikingly different ways are thought to be strikingly different". This statement brings reminiscent thoughts of my childhood Congolese neighbors who used to indulge in fried termites which I found intriguing since they consumed the very things I was petrified of as a child. This is similar to Mintzs (2008) Afterword, where the author describes an anecdote from a Chinese woman who had been invited for dinner together with her family. Upon being served raw celery, the Chinese woman and her parents started to indulge in what seemed to them a common dish in their culture, only to realize the abrupt silence that had taken over the room, having their hosts staring at them in amazement.

The above contention by Mintz was reminiscent when consumption of my native food created a sense of curiosity, sometimes followed with negative comments from my "hosts". This was especially the case while schooling in Kenya. Of course the above phenomenon was probably associated with age difference because the reaction to foreign food from my mother's colleagues was mostly one of curiosity, not only about taste but also enquiry of the recipe. Despite living in the city, "recipes" in our household were only used when experimenting on a new dish I had learnt from school. For my mother, her cooking seemed innate. When requests for recipes come up from her colleagues, she would always offer to show them how to make the dish from scratch. Sutton (2013) emphasizes on the importance of traditional knowledge. In our case, traditional knowledge played an important role in the food that was consumed by us, the immigrants, to recreate a nostalgic sense of "home" i.e. Tanzania.

Memories and nostalgia tied to food contain different senses. Roden (1974) illustrates the "synaesthetic" nostalgia in her book: Middle Eastern Food. Her ethnographies as well as her own childhood memories were a source of inspiration for writing the book. Food centered nostalgia is a reoccurring topic in diaspora (Janowski 2012). Related studies usually focus on displacement or construction of identity. Mankeker (2012) and Sutton (2001) illustrate this sense of food centered nostalgia in their work. Both authors point out that people not only shop but also indulge in what they consider representations of

home. During my first experience as an immigrant, in Kenya, I was too young to engage in full synaesthetic experiences, or some would say perhaps ignorant of the value of "consuming home".

However, my mother would go out of her way to remake the dishes I remember my grandmother serving us. From "machalari" (made from a specific type of banana, cooked with a mix of vegetables and meat) to yams every now and then when she could find the same type at the local market, or from a journey back to Kenya from Tanzania. Although a variety of raw goods that hold cultural resemblance to ours were available in Kenya, my mother would still insist on purchasing the items across the border from Tanzania. This she attributed to a difference in taste and aroma when cooked. This evocation of memory which addresses more than one sense is similar to Bourdieu's (1984) notion of habits which combines perception, thought and acting as a system of disposition.

It is important to consider how much our taste preferences evolved over the years. One is likely to accustom themselves to their new home and embrace the food from the "other". This was evident when we started consuming Irio. a Kikuyu-Kenyan dish made of potatoes and green peas. I preferred consuming such items during lunch breaks in school to avoid unwanted curiosity. This leads one to question if embracing the "other" and their food ways detrimental to our original food ways.

Next, I attempt to discuss how reconstruction of identity through "cuisine" affects the food in migration discourse as a whole.

Who bears the right to claim the food?

After more than 15 years in Kenya, I migrated to Cape Town, South Africa in pursuit of my undergraduate degree. At the campus, I was one of the few "international" students attending that specific course. As the "other", I was considered a "local" which was contradictory to normal day living as a student in Cape Town. South Africa has a history of racial discrimination between people of different skin colour (apartheid) (Berghe 1973). In the Cape Town area, I was mostly surrounded by Coloureds (mixed race), Boer (white) and Black South Africans as most referred to themselves. As an outsider, it is easy to notice the clicks that are formed between people of either ethnicity. In most instances, the people I encountered thought I was either Afrikaans or Black. My fair complexion and long hair played a role in the "being Afrikaans". On the other hand, when a black South African would approach me, they would first speak in their native language only to be met by an awkward silence, some concluding and uttering that it is shameful of me not to embrace my roots as a black person, only to later realize I was not one of their own. This happened on several occasions until I had established myself in our small campus. Having hailed from the East African region where Swahili was one of the official languages, I progressively picked up words from my Xhosa and Zulu speaking acquaintances which made it easier for me to establish a bond with them. The formed bonds progressively turned to friendships and this very much influenced what I ate.

Due to the ethnic background of my newly formed relations, I learnt about what I was informed were the "black" South African food-ways. The items seemed to intertwine between the black and the Whites South Africans who are now looking back to embrace their food-ways (Snyman 2004). However, the meals were similar to what I grew up

consuming. A friend invited me for a traditional South African meal of "Pap" and chakalaka as a treat. To my delight, "pap" was a softer version of "ugali". On another occasion, one of my flat mates invited me for dinner. She made "mngusho", a bean and maize mixture, which was similar to "githeri" among the Kikuyu of Kenya and "ngararimo" of the Chagga-Tanzania. This also led me to question the uniqueness of both our food-ways and whether or not, as an African, one has the right to claim any particular dish as their own.

The complexity of life as a constant immigrant, playing the "other" since a young age, has created a rather awkward position in terms of claiming a specific food-way, thus unable to create for myself the feeling of belonging to an "imagined community" (Cohen 1985). As an individual who has spent only a quarter of my life in Tanzania, is my account of Tanzanian food-ways valid considering the intricacies "memory" holds? How does change (constant immigration) affect the type of cuisine one is supposed to identify with? As a young adult, is it possible to reconstruct an "authentic" food identity, which will provide the sense of belonging to my claimed nationality that I can share with others? With the above set of questions I attempt to outline the meaning and construction of cuisine and what it would mean, for an immigrant of Tanzania origin, such as myself.

Cuisine: meaning and its construction from the immigrant perspective

Nation building as a theme has been huge in African countries since the 1960s. The featured topics, mostly focused on flags, monuments and anthems, enable a country's commercial sponsorship (Nugent 2010). Now the discourse is evolving and food is being featured as part of the conversation. Also, due to globalization, individuals are embracing who they are. As is evident with the invitation to a "traditional" South African "pap" meal which ended up with me recognizing similarity to our region's food, "ugali", it is evident that the consumption habits in Africa are similar (Nugent 2010). The same applies to several African dishes: Jollof Rice that is claimed by West African countries such as Senegal, Nigeria, and Ghana. In Stirring the Pot, McCann (2009) comprehensively discusses the literature of food which he uses as a way to make his audience aware of the history of Africa and how food serves as a useful tool in elaborating the African story. According to McCann, the reason why, as a Tanzanian, and my hosts in South Africa, had similar foods e.g: ugali, is due to different factors such as trade and colonialism, leading it to become the most economic carbohydrate in the 20th century.

Both Cusack (2000) and McCann (2009) acknowledge the importance of constructions of national cuisines. For both authors, cuisines form a bond and a sense of belonging in sharing meals as a nation. Cuisine can be defined as a set of principles that enable not only the selection but the whole process to consumption itself (Appadurai 1988, Hobsbawm 1983, Mintz 1996, Bellaso 1999, Bellaso and Seranton 2002). It can also be summed up as the "construction of meals, its structures that organise knowledge and the pattern of their preparation." In-order for one to refer to cuisine, one must engage in food discourse enabling the creation of sustainability in understanding the food production process of any particular food item. Despite this debate, Wilk (2002) stated that the ongoing integration between regional or local cuisine is important because it makes food discourse a reflexive and performative exercise. Klein (2007) questions this sense of "imagined community".

The above notion of nation building through a concept such as cuisine goes against believes of prominent African leaders such as Thomas Sankara, who stated that "imperialism can be found in the plate of food one consumes." This is due to the fact that cuisine, is a "construct, that serves the dominant Western ideology" (Cusack 2000). Cusack (2000) emphasizes the significance of an African to question cuisine related discourse that references or touches on the African continent. Most of our food-ways were influenced by colonial powers, and therefore, aspects such as seeking a purely authentic African food can be questioned. Documented recipes and cookery books are also produced for a specific targeted audience (Bathes 1973). This seems to be the case of "Tanzanian cuisine" a phrase widely used by Tanzanians in the diaspora, recreating meals for the "Other", e.g. on Youtube, and cookbooks or commercial websites try to attract tourists to Tanzania. I question whether the individuals who use the concept fully understand its meaning, especially for Africa, a continent that is now fighting for Pan-Africanism in-order to strengthen itself (Nkurumah 2015).

Discourse on cuisine poses complexities from whichever side one looks at it. In this case, as an immigrant, it would be easier to and probably give more of a sense of belonging if there was a specific food I could consume and claim it as "authentically Tanzanian". However, it is clear that using concepts like cuisine, means giving into western ideology, and as an African, can claim that colonization is still happening but only in a less violent due to this imposition of constructs/ideologies in the narration of African history and creation of its future. Is this then not slightly similar to Derrida's (1993) hauntology? Where episodes from the past are haunting the African state once again? Does Africa as a nation have to completely lose its identity in-order to get a chance to claim its own story from scratch?

Conclusion

Food in migration is a complex topic, as is the transition of an immigrant to their new home. However, as is evident from the author's self-ethnography, the topic plays an important role in the formation of identity for an individual or society as a whole. Ethnicity, age, new migration, all contribute to different memories encompassed in food, some positive, some negative and others leaving one to question their identity and sense of belonging.

From an anthropological perspective, more research on the topic as a whole needs to be done, as well as on the etymology and use of the concepts such as cuisine when discussing food in migration, especially from an African perspective. This should also be carried out on the consuming bodies and culinary practitioners who claim something to be e.g.: "Tanzanian cuisine" to better understand such concepts and ideologies.

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Author's biography

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HOKKIEN MEE: A CASE STUDY OF SOCIAL INTEGRATION IN KLANG VALLEY, MALAYSIA

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Abstract

Chinese citizens from Mainland China who migrated to Malaysia experienced the process of adapting to local culture while simultaneously conserving their culture of origin. Cuisine is one of the elements that the Chinese voyagers brought along with them during migration; hence, the concept of 'foodscapes' was created. There are several factors contributing to shape cuisines, which have evolved into foodscapes, such as ingredient availability and culinary adaptability to the local technology and environment. This study undertakes to examine the ethnic Hokkien Chinese group as the research object. Hokkien Chinese constitutes a sub-ethnic group originating from the Southern Fujian province of China, made socially distinct due to its dialectal boundaries. Hokkien Chinese migrated and settled down in Malaysia, and currently represents one of the major social groups of the ethnic Chinese population in the country. This study constitutes a preliminary research undertaking '*Hokkien mee'* (Hokkien noodles) as the selected object of study. In Malaysia, there are two varieties of Hokkien mee: the Northern style and the Southern style. This study focuses on Hokkien mee in the South, specifically the Klang Valley. Hokkien mee literally translates as Hokkien noodles i.e. wok-fried thick yellow wheat noodles in dark soy sauce gravy. The name itself clearly indicates that these noodles are an expression of Hokkien ethnicity. However, this Malaysian recipe could not be traced back to Southern Fujian, China. A qualitative approach was designed to investigate the characteristics of Hokkien mee. Semi-structured interviews were conducted with a third generation *Hokkien* chef to identify its ingredients, cooking methods and preparation, and how this dish is generally consumed. These variables were used to make sense of the Hokkien Chinese community's degree of social integration. Through the lens of cuisine, this study may provide a better understanding of the process of identity formation for the ethnic Hokkien Chinese group in Malaysia.

Keywords: Hokkien Mee, cuisine, ethnicity, foodscapes, China, Malaysia

Introduction

The world today is coined by many as a "global village" due to technological advances, especially in the areas of transportation and information that have eased cultural traffic (Appadurai, 1996). It is very convenient now for people to travel from one place to another for leisure or work. The augmentation of global migration has led to exchanges in trade, politics, communication and cultures. Drawing from Appadurai (*ibid.*), one way to make sense of the global culture flow is to look into ethnoscapes. The ethnoscapes are defined as "the landscape of persons who constitute the shifting world in which we live: tourists, immigrants, refugees, exiles, guest workers, and other moving groups and individuals constitute an essential feature of the world and appear to affect the politics of (and between) nations to a hitherto unprecedented degree" (Appadurai, 1996: 33). There are many reasons that motivate people to move from one place to another. Some may be due to work opportunities in greener pastures, others due to political instability in their homeland.

The concept of foodscapes is interrelated with ethnoscapes as it involves the movement of groups of people. According to Ferrero, "foodscapes will allow an analysis that deals with transnational food practices and their dynamics that usually characterise, and potentially subvert, consumer societies" (Belasco & Scranton. 2002:196). Thus, when a group of people migrate from one place to another, they usually endow their new settlement with links between their homeland and the local community. This creates a form of cultural dynamics known as 'de-territorialisation' (Appadurai, *op.cit.*).

Most of the de-territorialised groups tend to reinvent the image of their homeland (Appadurai, *op.cit.*). They settle down in their new environment and start to borrow cultures from the natives, reconstructing their own culture. Different individuals or groups have various degrees of holding on to their own culture and/or adapting other cultures. Moreover, the level of adaptability also depends on the natives' acceptability of the newcomers. They tend to live in 'imagined communities' as coined by Benedict Anderson (1983). For example, they use food as a cultural anchor to express their sense of home and belonging. Consequently, migration flows have weaved complex webs of ethnicities in different geographical locations.

In the context of Malaysia, a large influx of Chinese migrants occurred in Malaysia during the late nineteenth century (Voon, 2007). The Chinese migrants settled down in Malaysia as they gained economic advantage and became citizens of the country upon its independence from the British (*ibid.*). The Chinese immigrant communities in Malaysia consist of dialect-based social groups such as *Cantonese*, *Hakka*, *Hainanese*, *Teochew*, *Hokkien* and others (Wu & Tan, 2011). According to Voon (*ibid.*), the Chinese culture in Malaysia is very unique. While the core values of the culture practiced by their ancestors in Mainland China remain, they simultaneously blend it with local cultures of different ethnic groups, expressed in terms of languages, beliefs, customs, festivals, cuisines and other attributes. It is in fact rather interesting to study the identity formation of Ethnic-Chinese in Malaysia as a working process of deconstructing the acculturation.

Among the ethnic Chinese in Malaysia, the largest group came from the Fujian Province (福建**省**, *fú jiàn shěng*). They are known as ethnic Hokkien Chinese (福建**人**, *fú jiàn rén*), who are also known as the Minan People (閩南**人**, *mǐn nán rén*) or Southern Min people. The cuisine in the Fujian Province is considered as one of the major cuisines in China, characterised by its soup-based dishes, broths, stews and primarily noodles (Simoons, 1991). Beardsworth and Keil (1997) state that "the role of food and food preparation conventions in symbolizing ethnic differences is also significant, given the fact that these conventions are such central features of cultural distinctiveness, and can retain their potency among minority groups for several generations after their physical separation from the parent culture." Thus, from the food perspective, this study may provide a better understanding of the modalities of the ethnic Hokkien Chinese group's social integration.

Investigating Hokkien Mee's Transnationalism

In the Fujian Province, noodles are served as a basic diet and are more common than in other parts of China (Simoons, *op.cit.*). As this study is designed as a preliminary study, Hokkien mee (福建**面**, *fú jiàn miàn*) is chosen. The word 'mee' means noodles in Hokkien dialect. The name itself indicates that this dish acts as a manifestation of the

Hokkien ethnicity. However, Hokkien mee has different definitions between the Northern and the Southern parts of Peninsula Malaysia. In Penang, Hokkien mee is a dish of noodles prepared using prawn-based stock, which is also known as Prawn Mee (Prawn Noodles). This study will focus on Hokkien mee in the Southern part of Peninsular Malaysia, specifically in the Klang Valley. Here, Hokkien mee is a type of dish with thick yellow noodles that are wok-fried in dark soy sauce gravy.

Hang Sing Seafood Restaurant & Catering located at Pandamaran New Village, Klang, was selected as the case study. According to Dugdale-Pointon, New Village was a resettlement program formed under the Briggs' Plan in 1949, when Lt General Sir Harold Briggs realised that there were large numbers of communists recruited among the ethnic Chinese in the former settlements. The Briggs plan entailed gathering the ethnic Chinese into new villages in order to separate them from the influence of the communists (Dugdale-Pointon, 2007). The founder of the restaurant, Madame Liaw Jam, started operating a small stall in front of her house with five tables in the mid-1970s, offering several noodle-based dishes such as Hokkien mee, *Zhi Hun Ken* (茨粉根, *cí fěn gēn* - Fried Tapioca Noodles), and *Tang Hoon* (冬粉, *dōng fěn* - Fried Glass Noodles) to the ethnic Chinese communities. In 1978, she converted an empty space in her corner house into a restaurant in order to accommodate more space and food varieties to her customers. Over the years, Hang Sing eatery has made itself famous for its Hokkien mee. Currently, the restaurant is owned by Mr Nelson Lim, who took over from his father, Mr Lim Kok Keong, the eldest son of Madame Liaw Jam.

The recipe of *Hokkien mee* in Hang Sing Restaurant & Catering is as follows:

Table 1.0 Recipe of *Hokkien mee*

Ingredients	
Hokkien Yellow Noodles	800g
Choy Sum	4 stalks
Garlic	3 cloves
Chicken fillets	150g, sliced
Fish cake	1 piece
Chicken stock	1000ml
Thick dark soy sauce	2 tbsp
Light soy sauce	1 tbsp
Monosodium glutamate	

Tools and equipment needed

1. Wok
2. Wok lid
3. Chinese ladle
4. Chinese spatula
5. Natural Gas (Chinese Wok Range)

Method of cooking Hokkien mee

1. Heat up the wok until smoking hot.
2. Add garlic, fish cake and chicken fillets. Fry until fragrant.
3. Add in chicken stock and let it boil.
4. Add in light soy sauce, thick dark soy sauce and monosodium glutamate.
5. Put in yellow noodles and mix well.
6. Cover the wok with lid and let it braise for 5 minutes.

7. Uncover and add in Choy Sum and then cook on high heat for 5 minutes.
8. Once the yellow noodles are soft and the sauce reduced, continue to stir-fry the noodles until fragrant.

From a plate of Hokkien mee, we can observe a number of elements. Firstly, the wok is used as a tool to cook Hokkien mee. Using the wok for food preparation is indispensable in Chinese cooking (V.B.3. China, 2000). The wok (锅, *guō*) is a round-bottomed pan made from cast-iron or carbon steel (Kho, 2015). W*ok hay* (镬气, *huò qì*) is defined by Grace Young as the "breath of a wok - when a wok breathes energy into a stir-fry, giving food a unique concentrated flavor and aroma" (Young & Richardson, 2004:60). The other tool that is usually used together with a wok is called a Chinese ladle, which has a curved bottom that enables it to fit the shape of the wok (Kho, *op.cit.*). It can be used to stir-fry and scoop liquids into the wok. The ingredients are put into the wok using the Chinese ladle to be fried. Once all the ingredients are placed into the wok, the wok lid is used to cover it. After all the ingredients are cooked for a few minutes, the wok spatula is then used to stir-fry. The wok spatula is a shovel-like utensil with a wide blade, perfect to keep all the ingredients in motion (*ibid.*). Using the wok spatula, all the ingredients are then stir-fried for a few minutes until the sauce becomes thickened gravy. This is a Chinese cooking method called moist stir-fry, where the sauce defines the flavor of the dish (*ibid.*). Last but not least, controlling the heat during the stir-fry process also adds a distinctive flavor of the *wok hay* into the Hokkien Mee.

De-territorialisation at work: from biotope to social space

The usage of seasonings such as light soy sauce and dark soy sauce displays the Chinese identity in this dish. Soy sauce, either light or dark, is a significant ingredient that is commonly used in Chinese cooking especially by the Hokkien ethnicity. Soy sauce is made from naturally fermented soy beans, one of the main agricultural products in the Fujian Province (V.B.3. China, *op.cit*). Olmedo (2015) stated that "in an anthropological sense, a food macrosocial space refers as well to the notion of biotope, if one takes the trouble to refer further to the mother concept of 'social space' coined by Georges Condominas. According to Condominas, 'social space' is a space determined by the whole of interrelational systems, which are characteristic of the studied group" (Condominas, 2006:541.) As such, the usage of soy sauce encapsulates the notion of de-territorialisation as it echoes the ecosystem of Mainland China, more precisely the biotope of the Fujian Province where soybean was cultivated. Both light and dark soy sauce are household essentials for the Chinese as each gives out different colours, tastes, levels of saltiness and flavours (Tan, *op. cit.*). The usage of locally available soy sauce in Malaysia transforms the original biotope into a "logic space" (Condominas, 2006).

Unlike other restaurants, Hang Sing's Hokkien mee recipe does not contain pork lard and pork. According to Madame Liaw, she used to add pork lard and pork slices in her noodles. In Mainland China, lard is the most common cooking fat as it has a high smoke point used in stir-frying. Pork lard is also able to add flavor to the dish (Kho, *op.cit.*). However, the increasing popularity of her Hokkien Mee has brought in more customers. She realised that ethnic Chinese customers would bring along their non-pork consuming guests to the restaurant. Madame Liaw then decided to omit the serving of pork in her restaurant so that non-pork consuming guests would be able to consume her noodles. Her decision to do so echoes the statement by Beresnevičiūtė (2003) that "identities, attitudes, behavior, and participation in the social sphere of ethnic groups are

influences by matters that take place within the boundaries of ethnic groups or in relation of other groups, but by the processes that take place in the broader society".

These non-pork consumers were initially only the guests of Hang Sing's ethnic Chinese customers. They eventually became customers of Hang Sing themselves. Since then, Hang Sing has been enjoying regular customers of diverse ethnic backgrounds including those who do not consume pork. These customers share two common traits: they come as familial parties, and the majority are products of inter-ethnic marriages. Their patronage of the restaurant has led to a paradigm shift for the restaurant - from a pork-based fare to a pork-free menu, transforming the Malaysian logic space into a newly created Malaysian social space, an inclusive one for that matter.

Conclusion

A citation in Kwik (2008) describes the concept of 'foodscapes': "The process of consumption of ethnic food in itself is conceived as device to reconstitute identity and enact strategies where subordinated people engage in critical thinking and change the condition of their own existence". Initially, Madame Liaw started selling noodles as a way to earn a living to raise her children. She prepared noodle-based dishes, which constitute the basic diet in the New Village as the majority of its occupants are ethnic Hokkien Chinese. The omission of pork lard and pork in Hokkien mee has rendered these noodles consumable by customers who do not eat pork. According to Beresnevičiūtė (*op.cit.*), the theory of social integration indicates that individuals are tied to each other in the social space, where in this case, Hang Sing has created an inclusive social space. Hang Sing's Hokkien mee is no longer seen as an ethnic Hokkien Chinese dish prepared solely for its ethnic group, but for other ethnicities as well. Hang Sing provides the social space for other ethnicities to interact, thus creating a social integration environment. The decision to omit pork lard and pork from their Hokkien mee stands as a crucial element of social integration, as advocated by Sandra Smith (cited in Beresnevičiūtė, *ibid.*) whereby "the decisive role is played by social networks, the possession of which increases opportunities for status, income, and professional achievements."

Hokkien mee is a dish that portrays the ethnic Hokkien Chinese identity through its ingredients and methods of preparation. However, Hang Sing's conscious omission of pork lard and pork i.e. the iconic ingredients in Chinese cuisine, shows their willingness to participate in the process of social integration. This is an applied form of stability in social relations as well as a form of compensation in balancing different social units and groups. Hang Sing's Hokkien mee is no longer a food to satisfy hunger, but a product that integrates the communities of different ethnicities. In this case study, 'foodscapes' do not equate to 'ethnoscapes' as Hang Sing has created an inclusive social space. The original biotope in Mainland China commonly uses pork and pork lard in their recipe. In the new social space in Malaysia, business pragmatism has led Madame Liaw to be more inclusive by accommodating her cuisine to non-pork eaters. The openness of non-pork eaters in patronizing a non-Halal place can be seen partly as a product of history, whereby resettled ethnic Chinese groups in new villages had to display social integration skills in order to fend off any accusation of being sympathetic to the communist cause. Nonetheless, this claim remains an assumption. Future sociological research should be undertaken to investigate the array of rationales for Muslim consumers to patronize restaurants that are not Halal certified.

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BEYOND HALAL: FOOD AND THE MUSLIM ECONOMY OF MERIT IN SOUTH THAILAND

Christopher M. Joll

Abstract

This paper explores the role played by food in the Muslim economy of merit. My insights might be based on extended ethnographic fieldwork in South Thailand, but contacts with Muslim communities elsewhere in Thailand, and in northern Malaysia – along with interaction with the extensive secondary literature on this subject – confirms that these ritual exchanges are widespread. I begin with a brief description of what I refer to as the economy of merit in the Thai/Malay Peninsula, and its Islamic credentials. For most, the bread-and-butter of personal merit accumulation are the obligatory daily prayers, annual fast, and once-in-a-lifetime pilgrimage to Mecca. Alternative strategies for increasing the amount of merit in one's personal pantry include good works, supererogatory prayers, recitations of the Qur'an, and acts of charity (*sadaqah*). However small, gifts of food also generate merit whenever they are performed with sincerity (*ikhlas*), to a worthy recipient, and with an intention (*niat*) for merit. I describe both the gendered nature of these exchanges (that are rarely performed by Muslim men), and that merit generated by the *sadaqah* of food increases the efficacy of prayers (*dua*). I make the argument for this representing the internal logic for certain forms of ritual feasts performed by Muslim communities throughout Southeast Asia, and beyond. These are merit-making complexes that revolve around the *sadaqah* of food, performed in conjunction with recitations of the Qur'an, and prayers for both the living and the dead.

Keywords: Feasts, anthropology of Islam, *sadaqah*, merit-making, South Thailand

Introduction

This paper explores the role of charitable donations of food in what I have described as the Muslim economy of merit in South Thailand, where they are most naturally referred to as *sedekoh* (Ar. *sadaqah,* SM. *sedekah*) (See Joll, 2011, 2014). My analysis of how Muslims, generate, accumulate, and benefit from merit (Ar. *thawab*, SM. *pahala*, Th. *phonlabun*) in this world (Ar. *Dunia*), the grave (Ar. *Alam al-Barzakh*), and on the Day of Judgement (Ar. *Yawm al-Hisab*) are based on almost a decade of living and working in the Malay dominated Thai Province of Pattani, which began in 2000. David Parkin has noted the neglect of the *sadaqah* in the anthropology of Islam (1994, 2000). In light of my specific interest *sedekoh* of food, merit-generating feasts will also be included. The irony of this juxtaposition is that these have been extensively scrutinized. Clifford Geertz' 75-page treatment of the Javanese *slametan* in his *Religion of Java* (1960) where the normative piety of *santri* was covered in eight pages! Critiques of Geertz' assessments of *slametan's* Islamic credentials are well known[1]. These include those influenced by him going further than he had intended. The lack of critical comparisons between "local Islams" in Southeast Asia and those elsewhere, the former was weighted and found wanting. This led to the marginalization of Islam in Southeast Asian studies that was, at the time, in its infancy.

This paper is divided into three sections. Following my account of the most common forms of *sedekoh*. I provide a more detailed description of exchanges involving food, and how these benefit both the living and the dead. Involving as it does those controlling the kitchen, I document the gender dynamics in this corner of the Muslim economy of merit. The following section demonstrates that merit-making feasts in South Thailand revolve around the *sedekoh* of food. I argue that Muslims view merit increasing the efficacy of (accompanying) prayers. I conclude with a call to de-exceptionalize Islamic practices in South Thailand. This is based on local elements in the Muslim economy of merit in South Thailand resembling those described by anthropologists in Indonesia, and the wider Muslim World.

Sedekoh of Food, Merit Generation and Transference

Sedekoh in South Thailand takes a number of forms, and come in many shapes and sizes. The unanimity that these generate merit whenever preceded with an intention (Ar. *niat*), *halal* funds are used, and are performed with sincerity (Ar. *ikhlas*). There is less agreement about whether merit is produced when recipients are not defined as poor by Islam jurisprudence (which includes widows and orphans). Even the smallest good deed, and the most modest donation is *sedekoh*. How the living and deceased benefit from merit is determined by a combination of the intention that precedes it, and petitions (Ar. *dua*) that follows. Merit from *sedekoh* of food is distinct from *sedekoh jariyah*. The latter refers to donations or tangible contributions to public facilities and/or the public good that are specifically concerned with making merit for the dead which will increase their comfort in *alam al-barzakh*.

Like Qur'anic readings and *fardu* prayers, *sedekoh* is voluntary. They require neither religious expertise, nor discipline. The *sedekoh* of food is gendered for a number of reasons. In the past, more men than women received their formation in Islam in a *pondok*. Muslim men fund most feasts, but Muslim women do most the cooking. Local kitchens produce food that, in turn produces merit through a range of ritual exchanges. *Sedekoh* might increase the amount of merit in one's personal pantry, but (with the appropriate *niat*) may alternatively be directed to the deceased in *alam al-barzakh*. Merit may benefit the living facing difficulties in this world (Ar. *dunia*).

Muslim women in South Thailand regularly bag two or three portions of a pot of curry made for the family, and distribute these to households in the community. Many regard this as especially meritorious on the *wan di* (Th. good days) of Friday. One person for whom this was a regular practice explained, "When we do this, we have to *niat pahalo*. If we do this, we believe we will receive it". Many women also recounted that whenever they have been reminded of deceased relatives, a small mixture of neighbours, friends, and relatives are invited to share a cup of tea and some snacks (Th. *khanum*, PM. *tepong*). All this is done with a *niat* so that the merit from this *sedekoh* reaches the departed relatives. Another common practice among widows wishing to make merit for their deceased husbands is to buy a bag (PM. *pukuh*, Th. *hoo*) of cooked rice in the market that is donated to a religious teacher who is asked to read a prayer (PM *baco du'o,* Th. *aan du'o*) or recite a verse from the Qur'an over this *sedekoh*. This is followed by a prayer, requesting that the merit be sent to the deceased. Many confessed concerns that mistakes might be made should they attempt to read the Qur'an themselves. What happened to this rice? The *tok guru* (PM. religious teacher) or *tok babo* (PM. owner of a *pondok*) might eat it

himself, or to his children, or grandchildren. One widow appeared highly embarrassed at having made a *sedekoh* with food she had not cooked herself. She added, "But I put it in on a plate when I gave it to him, so that it looked nice". A local widow, Ka' Moh, recounted having once visited a *tok babo* with some rice to make such a request. Much to her surprise, he refused to accept the rice. After gently scolding her for coming, he read a prayer, dedicated the *pahalo* to her husband, and gave the food back to her.

What is the function of merit in *sedekoh* of this nature? Does the *sedekoh* yield merit for the deceased? Is *sedekoh* a form of payment for religious services? Does the merit made from the *sedekoh* increase the efficacy of the *du'o*? Alternatively, does the *du'o* increase the efficacy of the merit made from the *sedekoh*? Answers to these questions vary as those who perform this form of *sedekoh* have different intentions, and a variety of requests are made through this *du'o*. Merit from *sedekoh* lubricates *du'o* offered for the living. The owner of a popular coffee shop (PM. *keda kopi*) in the community I lived in explained how merit from her *sedekoh* assists her, her family, and her business, "Suppose we give 20 baht to a child or an old person in the morning, well by the afternoon someone will come and pay us 200 baht! We might have given some rice and curry. By the evening, someone else will have come to our house with something to eat as well!" The reward from *sedekoh* is obtained in this world (PM. *dunio*), although this is determined by what has been hoped for and where. Pointing to her packed coffee shop that we were sitting in she stated:

> See how many people there are in our coffee shop! There are many coffee shops around here—but they don't have as many people as us! Why is this? We *salat*, we *du'o*, and we make *sedekoh* with the things we have in the shop. See!? Our shop is full! Some people ask "why it is that our shop is filled the whole time?" It is because we make merit! Allah must eventually reward us—it's not like we do some it time today and expect the reward tomorrow. Sometimes we pray our debts will be repaid, then two or three days later, this happens. As soon as we make merit, good things begin to happen.

Sedekoh and merit-making feasts

I have previously referred to merit-making feasts as merit-making complexes in which merit is generated through a range of ritual performances (Joll, 2011, p. 140-154). My approach follows Mark Woodward's analysis of the Javanese *slametan* (1988), who in turn developed a treatment of feasts in Kelantan provided by Jeanne Cuisner (1963). Both pointed out that Southeast Asian feasting complexes contain a number of ritual elements.

Table 1: *Ritual constituents of feasting complexes*

	Sedekoh	*Du'o*	Qur'an	Chanting	*Barzanji*	*Semaye Hajat*
Funeral feasts	þ	þ	þ	*Ngatek*		
Mawlid feasts	þ	þ		*Salawat*	þ	
House-warming feasts	þ	þ	þ			þ
General *tham bun* feast	þ	þ	þ	þ		

Source: Joll, 2011, p. 140

Table 1 summarises the ritual constituents of the most common feasts found in South Thailand. Although a detailed description of these is not possible here, the most important of these are recitations of the Qur'an, a range of chants, prayers for the living and the dead, and occasionally *salat hajat.* A number of factors influence how these are configured. For example, some feasts are based around particular elements, like the *Barzanji* and *Salawat* at *Mawlid* feasts, and the reading of *Surah Yasin* at funeral feasts. Other variations reflect the preferences of the individual or household funding or hosting them. Nevertheless, all revolve around the *sedekoh* of food. I once asked whether the host of a *mawlid* feasts would receive merit. I was told, "After the *zanji* is read and the *salawat* is completed there is food—so the answer is 'yes'!"

Sedekoh performs a number of functions in the economy of merit. It generates merit, represents a form of payment for religious services, and increases the efficacy of accompanying *du'o*. This resembles Kari Telle account of Sasak Muslim on Lombok producing *pahalo* for the dead (2000). Reformist assertions that the Qur'an's unparalleled potency required no material accompaniment supplied the rationale for their campaign to separate words from material objects. The traditionalist response was to acknowledge this, but that in transactions with spiritual agents, powerful words and prayers were inseparable from objects. Prayer was more important than food, but the efficacy of the former required the latter. Furthermore, campaigns advocating synthesis would be more successful than those committed to substitution (2000, p. 772). Funeral feasts on Lombok continued, although refrained as opportunities to produce *Pahala* through *sedekah*. Suggestions that feasts fed the spirits of the dead were rejected. Those who recited the Qur'an, performed *zikr,* and offered prayers for the deceased at these feasts were being provided substantial meals. It was the living – not the dead – that needed food. What the deceased required was *pahala.* Food had been put in the service of merit-making (2000, pp. 798–799).

The Islamic Credentials of the Economy of Merit in South Thailand (and Beyond)

The concept of merit-making might most commonly be associated with Buddhism, but I argue that in South Thailand the *sedekoh* of food and merit-making feasts are elements of an authentically *Muslim* economy of merit.[2] Merit is primarily generated through the ritual repertoire of normative Islam. These range from mandatory (*wajib*) and supererogatory (*sunnat*) prayers (Ar. *salat*), fasts, and pilgrimages to Mecca. All these must be correctly performed, be preceded by an appropriate intention (Ar. *niat*) and done with sincerity (Ar. *Ikhlas*). Along with *sedekoh,* the bread and butter of merit-making can be bolstered by meritorious readings of the Qur'an, performance of *zikr*. Equally importantly, merit accumulation and transference is linked to Muslim conceptions of final judgment. The latter is intimately connected to Islamic concepts of links between and responsibilities towards children and deceased parents. This belief is, furthermore, connected to a tripartite Islamic cosmology between this world (Ar. *al-dunya*) and the hereafter (Ar. *al-akhirat*) that are separated by the world of the grave (Ar. *alam al-barzakh*) that has been described as a "rare product on the eschatology market" (Eklund, 1941).[3] Graves may be part of *dunia* but their inhabitants – who are now ruled by the laws of another – hear the living, and benefit from the prayers for mercy offered and merit transferred to them (Halevi, 2007, pp. 217, 226).

Anthropologists working in other parts of the Islamicate world have demonstrated that the economy of merit is not unique to either the Thai/Malay Peninsula. Indeed,

Indonesian specialists (such as Telle) have supplied some of the most in-depth descriptions of Muslim merit transference.[4] Equally importantly, these are present in the wider Muslim world.[5] Mono-lingual Malays with neither contacts with Thai Buddhists nor familiarity with the function of merit in Theravada Buddhism are capable of equally eloquent explanations of *pahalo's* efficacious operations, as Thai-speaking Muslim minorities in Central Thailand. Case studies contained in Monica Janowski and Fiona Kerlogue's *Kinship and Food in Southeast Asia* (2007) interrogating kinship feasts in mainland and island Southeast Asia include accounts of merit transference sustained by Muslims, Christians, Buddhists and animists. These are timely reminders about of Southeast's Indic and Austronesian influences.

It is conceivable that contacts between Muslims and Buddhists in Thailand have contributed to the amplified importance of merit generation, accumulation and transference in Muslim communities, but this proposal is neither concerned with – nor dependent on – suggestions that Islam has been modified in any way, shape or form. John Bowen in his studies of sacrifice in Aceh and Morocco (1992, 1998), and *salat* in Indonesia (1989) makes the point that neither of these are structured around semantic cores or symbolic codes. This permits both to be interpreted in ways that are meaningful in spiritual, social and political contexts in which Muslims practice them. In other words, seemingly rigid rituals are capable of taking on local social meanings (1989, p. 615) as Muslims shape a "particular set of ritual duties in sharply contrasting ways" in ways that locally make sense (1992, p. 668). In South Thailand, the significance of these – and other – rituals are that they all generate merit.

Conclusion

The bread-and-butter of personal merit accumulation are the obligatory daily prayers, annual fast, and once-in-a-lifetime pilgrimage to Mecca. Alternative strategies for increasing the amount of merit in one's personal pantry include good works, supererogatory prayers, recitations of the Qur'an, and acts of charity (Ar. *sadaqah*). However small, gifts of food also generate merit whenever they are performed with sincerity (*ikhlas*), to a worthy recipient, and with an intention (*niat*) for merit. In this paper I have described some of the most common forms of *sedekoh* in South Thailand, and the gendered nature of these exchanges. *Sedekoh* requires neither religious expertise nor discipline, and readers have been introduced to the range of ways that merit generated by the *sadaqah* of food functions in South Thailand, and beyond. It is not only the deceased that receive this merit, but also the living. Furthermore, the living make merit through the *sedekoh* of food for reasons wider than merely increasing the amount of cosmic cash in their personal account. Few might be unconcerned about their comfort in the grave and eschatological vindication, but this is not the primary function of *sedekoh*. I have demonstrated that Muslim benefit from merit generated through the *sedekoh* of food in a number of ways. This merit assists the living and includes much more than just the individual making merit. The efficacy of merit generated through *sedekoh* is determined by a combination of the intention (*niat*) that precedes it, and the prayers (*duo)* that follow. More specifically, merit is widely believed to increase the efficacy of prayers (*duo*). I have shown that this represents the internal logic for ritual feasts. These are merit-making *complexes* revolving around the *sedekoh* of food, performed in conjunction with recitations of the Qur'an, and prayers for both the living and the dead. Rather than reverting to syncretism as an analytical strategy, I have argued that there is a need to de-exceptionalize Islamic practice in South Thailand. Thailand possesses a large, growing,

and diverse Muslim minority unique in its close contacts with Thai Buddhism. However, most Muslims in Thailand perpetuate practices formed in places possess in a wide range of Indic influences where exchanges involving food were widespread. Nevertheless, no one familiar with the secondary literature – particularly those produced by the anthropology of Islam – can deny that these are widespread throughout the Muslim World.

Endnotes

1. Beatty, 1999; Woodward, 1988
2. I have provided a detailed explanation of the Islamic credentials elsewhere (see Joll, 2011, pp. 196-200).
3. Cited in Halevi (2007, p. 82).
4. Bowen, 1993; Telle, 2000, 2007
5. Bell, 2015; Buitelaar, 1993; Jansen, 2004; Mittermaier, 2013

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PLACEMAKING IN FOOD SPACES: THE OMNIVOROUS LIFESTYLE IN COFFEE HOUSES IN PENANG, MALAYSIA

Beh May Ting

Abstract

There is a proliferation of new independent cafes in recent years in Penang, Malaysia in spite of the on-going popularity of traditional coffee houses and international coffee chains on the island state. There are in general three waves of coffee culture in the specialty coffee industry. The first wave entails mass-produced coffees of which consumption has grown exponentially. In the Malaysian coffee scene, the first wave can be exemplified by coffees served in traditional coffee shops (*kopitiams*). The second wave entails espresso beverages and such that are linked to international coffee chains. The third wave entails the notion that coffee is an artisanal beverage instead of a commodity. With the ever-growing number of these contemporary spaces, I question the significance of how society uses the seemingly mundane act of eating not only for self-sustenance, but also as an expression of their lifestyle. This research aims to investigate the longue durée of lifestyle change in traditional and contemporary spaces for food consumption and production. I look at discourses of space, identity, and food with a focus on understanding the processes of place-making via food consumption at new coffee house spaces vis-a-vis traditional ones. In this paper, I use Richard Peterson's framework of *Omnivorousness* complemented by Pierre Bourdieu's *Distinction* (1984) to explain how the middle-class working adults in Penang use contemporary and traditional food spaces as symbolic and material representations of their identity. Participant observation activities, archival research, and interviews with coffee house consumers, proprietors, and coffee connoisseurs were carried out to investigate the relationship between the portrayed lifestyle in spaces for food consumption with the underlying aspirations that exist among middle-class cosmopolitan Malaysians.

Keywords: Space, identity, foodscapes, coffee houses, lifestyle

Introduction

As I walk into a picturesque cafe, I am pleasantly welcomed by the aroma of freshly brewed coffee and pastries. It is indeed an oasis compared to the sweltering heat outside. As I approach the counter while staring up at the chalk board menu, I realize that I am no longer in an old crusty building but instead in what many people would call a hipster cafe; an avant-garde coffee house, a third place. This is a scenario I encounter most days in Penang, the northern state in Malaysia where I study the uses of food spaces, particularly coffee houses, in shaping the lifestyle of the urban middle-class. This paper investigates the diversified tastes of individuals as a reflection of societal expectations and aspirations in Malaysia. In this paper, I will be clarifying three main points: 1) the terms used in this research, 2) the rationale for choosing Penang to study a global trend, and 3) the framework of *omnivorousness* in explaining Penang's coffee house culture.

There are in general three waves of coffee culture.[1] The first wave refers to mass-produced coffee of which consumption has grown exponentially such as canned coffee or

instant freeze dried coffee made popular by brands like Nestlé's Nescafe and Folgers. There have been criticisms on first wave coffees for sacrificing taste and quality to promote convenience and mass production. In terms of Malaysia's coffee scene, the first wave would include coffees in traditional coffee shops (*kopitiams*) as they were and still are comparatively cheap and convenient.[2] These are small-scale economic enterprises selling cheap drinks, nibbles, and sometimes meal foods (Lai, 2010). The second wave of coffee movement is a more sophisticated type of coffee culture entailing espresso beverages and specialty coffees. This movement brought in new vocabularies to describe our coffees such as espresso, latte, and cappuccino and coffee began to be enjoyed as an experience instead of just a beverage. International coffee chains are associated with the second wave coffee movement. The third wave refers to the current movement where specialty coffee is considered as an artisanal beverage. Instead of looking at coffee as a commodity, it is appreciated like fine wine and craft beer. This involves improvements to all stages of its production, from relationships between coffee farmers and roasters to higher quality roasting and skilled brewing.

Empirical field

Penang was chosen as it has both modern cosmopolitan living and a vibrant social and cultural heritage scene. In 2008, the inner city core of George Town was named a UNESCO World Heritage Site. It has since undergone substantial urban rejuvenation and gentrification. Part of this change includes the emergence of third wave coffee houses similar to those in other metropolitan areas in the world. These spaces offer alternative lifestyles to urban dwellers of various backgrounds. However, first wave coffee houses like traditional local coffee shops (*kopitiams*) and second wave coffee houses such as chained establishments (Starbucks Coffee, Coffee Bean and Tea Leaf, etc.) remain popular. The focus is to understand the processes of place-making via food consumption at new coffee house spaces vis-a-vis traditional ones. The cultural gentrification of Penang has resulted in a change in the social life of its people resulting in diverse tastes.

We face a global trend of coffee connoisseurship lifestyle. Youths in tight ankle-grazing pants and fake geek chic glasses pouring hot water from thin spouted pots into cone shaped coffee filters are sights that can be seen in many parts of the world. They may even speak in a lingo that is not entirely comprehensible to everyone else. As specialized as it may seem, this lifestyle is picking up gear not only within a niche group of people, but also among the masses. Numerous coffee events and barista championships in Malaysia in the past half-decade have pointed to the increasing global coffee trend that urban dwellers are exposed to. This is especially so in Kuala Lumpur and Penang, two of the most urban cities in the country. The rise of specialty coffees and third wave coffee houses have been linked to the force of postmodernity (Roseberry, 1996), the relationship between modern times with postcolonial ties (Shih & Chang, 2010), and attractive marketing strategies (Simon, 2009). Participant observation of activities at both traditional and modern coffee houses in Penang, archival research on media documents, as well as interviews with proprietors, consumers, and individuals from the specialty coffee industry in Malaysia have led me to a Malaysian coffee house culture which blurs boundaries and mixes tastes.

Taste, Placemaking and Cosmopolitanism

Bourdieu's seminal scholarship, *Distinction* (1984) investigates the connections between taste and social class and how the dominant class has imposed and legitimized their preference in taste as being superior, thus reproducing class inequality through cultural capital. Bourdieu (1984) asserts that the social class conditioning of taste in the ordinary choices of everyday life is habituated along the lines of the class culture that one lives in and has been brought up in (p. 77). Such predisposition in taste is part of one's cultural habitus. Habitus refers to the everyday tastes and inclinations that we actively but unconsciously embody. Bourdieu's arguments bring to light that the taste distinctions made daily are not socially constructed in big institutions, but rather in common everyday situations. However, class distinctions through food are now becoming irrelevant as cultural multiplicity has brought about changes that no longer recognize a rigid and fixed cultural hierarchy.

Richard Peterson (1997) challenges the sustainability of highbrow snobbery as status markers in society which has been replaced by the emergence of cosmopolitan *omnivorousness*. Peterson and Kern (1996) clarified that the omnivorous taste does not mean that the omnivore likes everything indiscriminately, but is rather more open to appreciating everything. Omnivorousness does not entail being indifferent to distinction; it rather indicates that there is a new way of defining social boundaries within the modern business-administrative class (Peterson & Kern, 1996, p. 904-906). This paper threads both these frameworks by understanding the workings of how the people of Penang embrace both modern food spaces and traditional ones simultaneously in the face of gentrification and how this has influenced the representations of their identity. There is a stereotype in Malaysia that traditional coffee houses are associated with lower social status and modern coffee houses with higher social rankings. However, Malaysians particularly the ethnic Chinese people of Penang commonly visit both the old and the new varieties of coffee houses on a regular basis. Middle-class individuals visiting the first, second, and third wave coffee houses within a single day is common although it is socially accepted that these places cater to different social classes.

The first, second, and third wave coffee houses in Penang share the common trait of selling their experience in its foodscape as one's 'third place'; a place that is neither home nor work, but where one is a familiar face (Oldenburg, 1989). Traditional *kopitiams* are frequented by its regulars who hold their daily congregations there. Hearty laughter and loud debates about daily issues laced with profanities can easily be heard in these places. Expectations of social etiquette in first wave coffee houses are different than that of the second and third wave coffee houses; nevertheless, they still fulfil the purpose of building camaraderie, or place-making for its occupants. Howard Schultz, Chairman and CEO of Starbucks Corporation famously described Starbucks as a 'third place' (Simon, 2009). Cafés are "social space[s] where solidarities are developed according to class, gender, ethnic, social, political and cultural structures" and is also a space where "power relations in society is reproduced, constructed, and reconstructed. The café is a nexus where the potential of emancipation, but also everyday conflicts and contradictions may be observed" (Graiouid, 2011). Although not all coffee houses in Penang loyally follow Oldenburg's third place definition, the planning, design, and marketing of these public spaces point to the intent of reaching the third place ideal; where it becomes a familiar place to and within oneself, a place to hang out, just as Central Perk was to Rachel, Joey, Phoebe, Monica, Ross, and Chandler.[3]

Besides being designed as an in-between space from home and work, coffee houses have always been known even historically as spaces where great intellectual flowerings occurred (see Pendergrast, 2010; White, 2012). Several third wave coffee houses in Penang provide spaces for artistic expressions through art exhibitions and movie screenings. This is particularly evident during the George Town Festival, a month-long international art festival that is held annually in Penang.[4] Members of the public, even if they are not customers, are free to walk into these coffee house spaces to view the exhibitions. My findings show that there is an overlapping of interest when it comes to coffee house culture between business and art appreciation.

Methodology

Interviewees from the specialty coffee industry and baristas pointed out that the rise of the third wave coffee culture started with interests in latte art.[5] Motifs of swans, hearts, and other foamy patterns in cups of coffees shared through social media complemented with hip-looking settings and vogue fashion styles of the baristas were enough to brew a tsunami in the third wave coffee culture. Coffee consumption has been viewed as a way to distance oneself from homogeneity, to construct authentic or unique self-images in the midst of on-going changes in contemporary times (Henningsen, 2012). Each newly opened coffee house in Penang tries to outdo the previous one by using more sophisticated coffee machines and equipment, more elaborate renovations, claims of healthier ingredients, and sending their employees to barista championships. Interviews with third wave coffee house owners and workers have revealed that being a barista gives them a hip and astute image. In turn, being in a modern coffee house becomes something of a trend, perhaps even to prove a certain social status. With the influence of social media and the nature of humans being easily attracted to visually pleasing objects, pictures of food and aesthetically beautiful coffee house environments are often spotted online as a new way to say 'I was there'. However, this phenomenon is not unique only to third wave coffee houses. The image branding power of the second wave coffee culture, particularly that of Starbucks, is often associated with the image of being sophisticated, urban, and intellectual (Simon, 2009). Elsewhere, pictures of traditional coffee cups in *kopitiams* have also surfaced on social media recently, evoking nostalgia and a break away from the saturation of the third wave coffee house culture.

Conclusion

As a conclusion, the third wave coffee house culture which has reached Penang's shores has provided Penangites an avenue for place-making in the midst of lifestyle changes. This trend occurs concurrently with the gentrification of Penang's heritage landscape. Zukin (1998) attributes the homogeneity of coffee houses to the widespread consumption of coffee among the urban middle-class which has led to "standardised attractions that reduce the uniqueness of urban identities even while claims of uniqueness grow more intense". The availability of various types of food spaces has enriched the Penangites' experience in crafting a social identity in this commoditised world. The local foodscapes now cannot be divided clearly in binaries of traditional-modern or egalitarian-elitist. Instead, the fluidity between these binaries offers insights into the cultural underpinnings and identity ramifications of the people.

Endnotes

1. The terms 'first, second, and third waves' in coffee culture are commonly attributed to Trish Rothgeb, a coffee buyer and roaster, based on an article she wrote published in the December 2002 issue of *The Flamekeeper*, which is a newsletter from the Roasters Guild of the Specialty Coffee Association of America. Since then, the terms 'first wave', 'second wave', and 'third wave' have been used commonly among those in the specialty coffee industry.
2. The word *kopitiam* resulted from the combination of the Malay word for coffee '*kopi*' and the Hokkien Chinese dialect word for shop '*tiam'*.
3. The American hit sitcom *Friends* featured six friends who often gather at Central Perk, their neighbourhood coffee shop.
4. George Town Festival is a month-long celebration of arts, culture, heritage, and community in Penang, Malaysia which started in 2010. It showcases internationally acclaimed performances, installations, and collaborations between international and local artists.
5. Latte art is a method of brewing coffee with patterns or designs on the surface of the latte as a result of pouring steamed milk into a shot of espresso.

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WHEN CHINESE FESTIVAL FOOD MEETS CONSUMERISM: A CASE STUDY OF THE REPRESENTATIONS OF MID-AUTUMN FESTIVAL FOOD IN HONG KONG MEDIA

Cai Qing

Abstract

Functional food and celebration food both play prominent roles in traditional Chinese food culture. While analysis of their representations in media is still lacking, this paper takes one of the most important Chinese festivals, the Mid-Autumn Festival, as an example to explore how the discourses of functional food and celebration food are constructed in the media. From a cultural perspective, this paper first uses the Yin-Yang theory in Chinese natural philosophy to illustrate how festival food culture is constructed under a holistic scope. Secondly, by undertaking a discourse analysis of advertisements and news articles produced during the mid-autumn season in current day Hong Kong, this paper compares the representations of functional food and celebration food and examines their impacts on public perception of festival food culture. This paper argues that following the wave of consumerism, celebration food becomes more commercialized while functional food received less attention from the public. Traditional Chinese festivals thus have to face the continuous challenge of standing out from the fierce competition while maintaining its cultural identity.

Keywords: Chinese food culture, festival food, advertisements, Yin-Yang theory, consumerism

Introduction

This paper focuses on Chinese festival food and its representations in the media. Traditional festivals are important sites when investigating cultures. Containing various social, religious, ethnic and historical bonds, festivals are closely related to cultural identities and lifestyle practices (Woodward, Taylor and Bennett, 2014). Among all the elements of festivals, festival food is important for us to understand both food culture and festival culture. In the Chinese cultural context, the variety of food choices and people's eating habits in traditional Chinese festivals indicate the close and complex relationship between food, nature, and health. Believing that food is both nourishment and medicine, Chinese people eat functional foods in different festivals according to the changing seasons. Besides that, celebration food is also highly valued in Chinese festival culture not only because of its close relationship to traditional festivals, but also due to its various unique symbolic meanings reflecting particular and long-held cultural values.

While other food types such as fast food, slow food, regional food and branded food have been widely examined in food and media studies (Mintz, 1978; Goody, 1997; Freeman & Merskin, 2008; Nayak, 1997), festival food and its cultural meanings have been ignored to some extent in this field. To extend the understanding on food culture in different cultural contexts and bring festival food into the academic discussion, this paper focuses on Chinese Mid-Autumn Festival foods by comparing the representations of

functional food and celebration food in Hong Kong media and examining their impacts on public perception of festival food culture.

Functional Food in Mid-Autumn Festival

As a traditional gala in China, the Mid-Autumn Festival is held on the fifteenth of August based on the lunar calendar. This festival is a traditional celebration to worship the moon since the Northern Song Dynasty (960-1127 A.D). Today, it is the second most important festival in Chinese culture after the Spring Festival (Chen, 1999).

Celebrating a good harvest is one of the main purposes of the Mid-Autumn Festival in China. Both Taoism and Confucius see nature and human as one, regarding human as an integral part of nature and emphasizing the importance of showing respect to nature. This fundamental philosophy in Chinese culture contributes to the choices of food in different festivals. In the Mid-Autumn Festival, special foods will be served including cooked taro, duck, and edible snails from the taro patches or rice paddies which are cooked with sweet basil, water caltrops, and osmanthus wine. The Chinese people choose these dishes for the Mid-Autumn Festival because the ingredients have become ripe and thus believed to taste the best in autumn. As highlighted by Lin Yutang (1937) that "every food is good when cooked and tasted in its own country and in its proper season" (p. 253), the Chinese people connect food to the idea of showing conformity to nature, expressing obedience and respect to nature's giving.

Moreover, some festival food in Chinese culture can be regarded as functional food, "a food by having (health) effects on the human body that goes beyond its simple nutritional value" (Sangild, 2014, p. 415). Believing that food and medicine are from the same source, Chinese people eat food as a way to nurture the body and cure diseases. One of the theories in Chinese philosophy i.e. the Yin-Yang theory offers an understanding of how food, nature and health can be connected holistically in Chinese culture. The Yin-Yang theory is a combination of two systems: Yin and Yang. They refer to two dynamic patterns, an inhibiting force and an activating force, which explain the origins of life and provide a basic understanding of the world. All living or physical components contain both forces and rely on the interaction between them (Sangild, 2014). The Yin-Yang theory emphasizes harmony, a balance within nature. When it comes to food, breaking the imbalance and rebuilding the balance are the reasons behind the ancient Chinese's choices of food for different festivals. Autumn, according to the twenty-four solar terms, is a dry season. The dryness will make people feel fidgety and uncomfortable. Based on the Yin-Yang theory, food contains a moist character that should be eaten during this season as medicine to cure people. Food that people eat on the Mid-Autumn Day such as taro, duck and water caltrops are all considered to be able to ease dryness. In this case, these festival foods not only function as a means for the Chinese people to worship nature, but also as medicine to make people healthier.

Celebration Food in Mid-Autumn Festival

Besides festival food with medicinal functions, celebration food also plays an important role in Chinese festivals. The moon cake is a central and essential element in the Mid-Autumn Festival. It is a pastry designed according to the shape and colour of the moon. The basic ingredients of a moon cake are flour, sugar, and egg. Its fillings vary from red

bean paste, lotus seed paste to nuts and Chinese dates. Salty duck egg yolks sometimes are put in the middle of the cake, of which colour and shape symbolize the full moon.

Historically, moon cakes function as sacrificial offerings and gifts during the festival in the Ming Dynasty era. Afterwards, various legendary stories became widespread and the ancient people started to carve the images of the legendary figures on the surface of the moon cakes to show their respect. There are many versions about the origins of the moon cake. The most famous is that during the Yuan Dynasty (A.D. 1280-1368), the Chinese people suffered tremendously under the cruel government. To overthrow the regime, the rebellion leader, Zhu Yuanzhang who later became the first emperor of the Ming Dynasty, found a way to organize the rebellion without being discovered. Knowing that the Moon Festival was approaching, he ordered the making of special cakes and inserted a message into each cake. The messages contained their plans of attack. Special cakes were delivered to people during the night and the rebellion army won the battle in the end. To commemorate this legend, those cakes were called Moon Cakes.

As a celebration food, the moon cake symbolizes the interrelation between human and nature from a cultural perspective. While celebrating a good harvest used to be the main purpose of the Mid-Autumn Festival in an agricultural society, family reunion now becomes the dominant purpose of the celebration. Family members will get together to have a big dinner during the festival night with moon cakes as their desserts. The celebration rituals and food choices indicate the Chinese people's strong will to achieve harmony, a conception deeply rooted in the Chinese philosophy of nature. According to the Yin-Yang theory mentioned above, harmony is an ultimate balance. As a too broad and abstract concept, the idea of harmony is thus manifested in the celebration food—moon cake. The moon cake's round shape and sweet fillings echo the theme of family reunion and also represent the people's adoration of the moon. The close relationship between the manifestation of the moon cake and the Mid-Autumn Festival makes this celebration food one of the most popular in China.

Festival Food in Hong Kong Media

To better understand how moon cakes and other functional foods of the Mid-Autumn Festival are represented in Hong Kong media, this paper looks into 32 moon cake advertisements launched in Hong Kong from 2007 to 2016 by nine brands[1] and online news articles of the Mid-Autumn Festival food. While festival food represents the Chinese philosophy of harmony, an imbalance between the representations of celebration food and functional food is noticeable in today's media. It was found that moon cakes have become highly commercialized in Hong Kong media, which overshadows the cultural importance of functional foods.

Moon cakes made in Hong Kong are among the most popular products nationwide during the Mid-Autumn Festival season due to their good quality. Every year during the festival season, dozens of moon cake brands from Hong Kong put in their effort in promoting their products. The fierce competition between more than one hundred types of moon cakes led to various promoting strategies. Out of the 32 advertisements, half of them had emphasized the theme of family reunion. Even if the plot was not about one family, the warm and loving ambiance was still highlighted in those advertisements, either by emphasizing the idea of sharing or companionship. This

complies with the symbolic meaning of the moon cake, showing that the traditional cultural element of the moon cake plays a dominant role and the historical custom is being carried on.

Besides emphasizing on family reunion, moon cakes are also closely related to the images of women. For example, in Maxim's advertisement, the moon cakes are displayed by a woman whose dress and posture keep changing according to the different flavours of the moon cakes. An adventurous girl in yellow depicts the flavour for "super lemon"; a sexy lady who is lying down on a brown carpet and posing sexily represents the "black forest" flavour. In addition, when promoting the modern version of moon cakes, advertisers also prefer to emphasize individualism, trying to assert the idea that if one buys their products, one will be different from others.

While much of the attention is given to moon cakes, other functional foods of the Mid-Autumn Festival such as taro and duck are rarely found in commercial media. An online search of Mid-Autumn Festival foods found that most of the news articles are irrelevant to functional foods[2]. Moreover, when the articles touch upon the topic of healthy diet, they prefer to recommend moon cakes with less sugar and oil instead of recommending healthy food to their readers. Although information about functional Mid-Autumn Festival foods does exist in some informative media channels such as magazines and social media, the concept of eating food according to different seasons to show conformity to nature is largely overlooked.

One of the reasons contributing to this shift is the rise of consumerism in contemporary China. Consumerism has become a noticeable part of Chinese culture since the economic reform started in 1978. Following the transition from a socialist economy to a consumer economy is the rapid economic growth in China and the continuous stimulation of consumer spending (Notar, 2012). In the case of Mid-Autumn Festival foods, moon cakes have enjoyed a huge market in China. In 2013, the sales volume of moon cakes in China is 2.4 billion US Dollars (16 billion Chinese Yuan) (China Consumer Report, 2013). The number kept increasing in the following two years and reached 3 billion US Dollars (20 billion Chinese Yuan) in 2015 (Zeng, 2015). Due to the high commercial value of moon cakes, moon cake companies keep expanding the variety of their products by producing modern-style moon cakes with untraditional flavours such as fruits, curry beef, spicy pork, and seafood. Sticky rice, chocolate or ice cream moon cakes are also created to cater to consumers from the younger generations. With the increasing number of moon cake advertisements, a consumer culture is constructed in the media from which the festival food market can earn more profits, albeit the fact that the commercial value of moon cakes has outweighed their cultural value. Moreover, this consumer-driven market marginalizes functional Mid-Autumn Festival foods because neither taro, duck, nor other foods have been given the same commercial value. In this case, while the moon cake as a manifestation of family reunion and harmony is still highly valued in the media and in festival culture, functional food is detached from the cultural meanings and from traditional Chinese philosophy.

Another reason comes from the impact of globalization as traditional Chinese festival food faces challenges from the Western culture. Western festivals are getting more popular in the Chinese society. Christmas has become the second most popular festival in China after the Spring Festival, according to the research conducted by the China Social Survey Institute (Hunwick, 2014). Many Chinese regard Christmas as "an

excuse to party" whereas Chinese festivals are comparatively "solemn, serious, and spiritual" (ibid). Under this circumstance, Western festivals stimulate domestic consumption in China and boost the emergence of several local festivals focusing solely on consumption such as Singles' Day on November 11. These circumstances had urged traditional Chinese festivals to emphasize on consumerism as well so that they can compete with Western festivals and regain popularity from the public. Such predicament not only undermines the influence of traditional festivals, but also leads to the dilemma of whether they should comply with the consumer culture or maintain their cultural significance.

Conclusion

Food means everything in the Chinese culture. Chinese people are so fond of food that Lin Yutang (1937) proclaimed: "Our lives are not in the lap of the gods, but in the lap of our cooks" (p. 248). When we talk about food in Chinese context, we are actually talking about nature, health, and Chinese philosophy. Chinese natural philosophy can influence people's choices of festival food where in turn, festival food plays a vital role in conveying Chinese natural philosophy. However, the understanding of Chinese festival food must not remain stagnant even though our philosophy of nature has been established for thousands of years.

This paper uses the Mid-Autumn Festival as a sample to discuss how the two kinds of festival foods i.e. celebration food and functional food are represented in today's media. It argues that following the wave of consumerism and globalization, the traditional Chinese value of harmony is used as a marketing strategy to promote moon cakes, while the interrelationship between functional food and nature has been blurred.

Sklair (2012) points out that the development of information technology shortens the distance of social and cultural relations, making it easy for the mass media to promote new consumerist lifestyles or behaviours. Moreover, when people are exposed to the new concepts of mass consumerism produced by the media, the boundary between information, culture, entertainment, and marketing becomes unclear (Sklair, 2002). The Chinese philosophy of nature and the Yin-Yang theory have made profound impacts on the Chinese people's perceptions of health, nature, and their daily lives. This should not be replaced by the new consumerist behaviour. Standing out from the fierce cultural competition while maintaining its cultural identity will be a continuous task for the traditional Chinese festival foods, especially for functional foods. After all, seeking a balance between traditional culture and consumerist culture to some extent fits well with the Chinese philosophy of a holistic view towards nature.

Endnotes

1. Nine moon cake brands including Wing Wah, Kee Wah, Maxim's, Tai Pan, Tao Heung, Hsin Tung Yang, Saint Honore, Koi Kei and Fu Lum.
2. The keywords "Mid-Autumn", "eat" and "food" were entered into Google's news search engine. Most of the search results are either related to moon cakes or celebration dinners instead of functional foods.

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CONCLUSION PART 2

FOOD AND IDENTITY

Claude Levi-Strauss is famously known for having said that "food is good to think with" (Levi-Strauss, 1962) while Arjun Appadurai stated about two decades later that food bears the propensity of a "highly condensed fact" (Appadurai, 1981: 494), echoing the take of Marcel Mauss on food as a total social fact (Mauss, 1967 [1924]) while adding an ethnic dimension to it. Van der Berghe explored further the ethnos of food, commenting that food is a privileged target of any ethnic revival movement: "thanks to the relative ease with which food tastes can be transmitted, comparatively for instance to language and belief systems". (Van der Berghe, 1984: 393). Literature indeed shows that food is often on the forefront of any revival movements, the latter arising as counter-reaction to the forces of cultural homogenization, themselves being a by-product of financial globalization.

On the other hand, Nicole Tarulevicz suggests that "the globalised pantry brings to many of us foods that come without a migrating community, creating a relentless pursuit of "authentic Asian food" (see Cai Qing's chapter on the symbolic role of food in mid-autumun festival in Hong Kong, China) and an acceptance of fusion food in all its varied permutations" (Tarulevicz, 2012: 2). This Asian illustration of pluralistic consumerism oscillating between the poles of authenticity and innovation has been further conceptualized – and clarified – by Jean-Pierre Corbeau through his concept of "plural eater" (Corbeau, 2000). Corbeau calls this sum of interactions "the eating triangle" (Ibid, p. 155), leading him to the conclusion that the eater is a plural creature, meaning to say that the plural eater may actualise his eating pattern (both in behavior and meaning) according to a given social context or typology of food. C. M. Joll's chapter on economy of merit in Southern Thailand perfectly illustrates the dialectics of social context (*Sedokoh* or charity) and the typology (Islamic ritualized food).

Therefore, how do we reconcile food as a symbolic expression of ethnic identity while acknowledging modern men and women as plural eating creatures?

The answer might not only be exclusively related to a "given social context" but might also be connected with the construct of foodspace, as emphasized by Beh May Ting in her chapter on cosmopolitan coffeehouse culture in Penang, Malaysia. Beh points out that "binaries of traditional-modern or egalitarian-elitist" cohabit in these foodspaces. In contrast, foodspaces may also act as ethnoscapes (Appadurai, 1996) i.e., manifestations of cultural identity, which can in turn be exclusive or inclusive according to the degree of materialization of cultural boundaries (Kosher or Halal stamps, for example). We are well aware that the concept of "inclusive food space" remains largely idealistic, in the light of Jean Duruz' emphasis that "cosmopolitan kopitiams" are "a projection of the alienated desires of the Chinese (and Indian) Malaysian middle classes, particularly those who were educated in English-medium national schools before the 1970s and a younger generation who grew up during the 1990s and was inspired by the inclusive state discourse of a Malaysian race/nation (Bangsa Malaysia) in then-prime minister Mahathir Mohamad's Vision 2020 speech." (Duruz, in Duruz J. & Gaik Cheng Khoo, 2015: 28). In contrast, spaces of differentiation do not necessarily rhyme with cultural alienation. In a

chapter of his short ethnographic study focusing on ethnic Chinese residents of the state of Terengganu (located on the eastern coast of the Malaysian Peninsula), Tan Chee-Beng describes the ethnic relations between the Malay and Chinese communities: " […] during the fasting month, the local Chinese generally avoid smoking or even eating in public where there are Malays. This norm has come to be perceived by both communities as showing politeness and respect…" (Tan Chee-Beng, 2001: 130).

While acknowledging the situational theory of Roland Barthes, which states that "food is also charged with signifying the situation in which it is used" (Barthes, 1997: 23-25), a useful methodological stance would consist in locating precisely the eating habits' continuum - the pattern of the dietary habits of these families, i.e. dining-in vs. dining-out, alternation of 'traditional food intakes' with 'other foods'. As far as the volatile relationship between food and identity is concerned, there is no escape from careful and systematic (if not longitudinal) collection of solid ethnographic data.

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PART 3: FOOD AND WELL-BEING

INTRODUCTION

In popular discourse, well-being is often equated with health. While there is no consensual definition of the term "well-being", it appears essential to set up *a minima* of a rough conceptual framework in an attempt to circumscribe the conceptual boundaries of this third part of our book entitled, somehow problematically, "food and well-being".
Food and health generally refer to the current 'crisis' in people's health and the role of lifestyle factors such as diet in illness prevention. Such views are generally Western-centric and discard malnutrition issues in developing countries. Since the mass media is a powerful source of information about health matters generally, media representations are subjected to critical examination as far as social normalization of obesity is concerned, or at least with regards to anxiety levels linked to public dissemination of endemics-related news.

However, subjectivity is not the prerogative of mass media only as far as health is concerned.

Poulain (2002) questions the medicalized-cum-objective status of obesity in a global world, arguing that obesity is, de facto, a "social construction" (Poulain, 2002: 119) as we have to acknowledge the bio-anthropological diversity of human kind. Some sociologists and anthropologists also contend that the measurement obesity itself via the Body Mass Index (BMI) method is problematic, being too Western-centric (Fischler, 1990; Sobal & Stunkart, 1990; Hubert, 1997) among other flaws.

If the measurement of obesity is proven to be subjective, what about the *sui generis* subjectivity of the concept of "well-being"?

First, let it be known that "Subjective Well-Being" is a well-defined and established sub-field of research within the field of psychology. In 1967, the American Psychologist presented a broad review of the concept and concluded, using limited data of that time, that a happy person is a "young healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married person with high self-esteem, job morale, modest aspirations, of either sex and of a wide range of intelligence' (Wilson, 1967: 294). More recently, psychologists tend to agree that there is a need to call upon more complex models to survey happiness, and that these models should take into account the basic equation of "Personality x Environment interactions" (Diener et al., 1999: 281). In other words, psychometrics should be supported and their analysis further refined via sociological data.
As food scholars, our concern lies more with the dynamics of eating habits versus food intake, aiming at measuring a self-reported sense of well-being - that is, to ponder whether the correlation between eating and happiness is more structural (i.e. social class-related – see Bourdieu and its construct of "cultural capital" – Bourdieu, 1986: 241-58) or more situational (see Schwarz & Strack, 1991: 27-48, for a review of situational factors of happiness).

The following papers attempt in their own way to explore the dynamics of food, eating and well-being.

Rachel Thomas Tharmabalan investigates the concept of "nutritional well-being", positing that wild and semi-wild greens from the peninsular jungles of Malaysia are nutritious food that tend to be forgotten. Her own field with different groups of Malaysian aborigines who still practice food gathering enabled her to collect relatively unknown plants. She then discusses the challenges related to their taxonomy as well as their intrinsic nutritional potency before coining the sample of greens she collected as "underutilized plants" in Malaysian modern eating habits.

Tan Kean Buan opposes the term of healthy eating versus eating well - opposing a top-down (and Western-centric) nutritionional framing of what is healthy and non-healthy in favour of a bottom-up approach of eating well that acknowledges social and cultural markers of eaters in their everyday experience. Tan suggests Malaysia to draw inspiration from Japanese food education termed "shoko-iku" and to look inwards into Malaysian folklore and traditions conceptualized in the term "petua". For Tan, a petua-driven diet should shift the lens from a culturally alienated diet model to more culturally accepted diet, therefore contributing to a higher sense of well-being through "eating well".

Hart N. Feuer goes down a not-so-distant path, as he draws preliminary conclusions from his own fieldwork in Cambodia where he has been scrutinizing a popular type of street food eatery termed "soup-pot" stalls. Feuer claims Cambodian cuisine has been evolving towards becoming a healthier culinary system and that the dominant paradigm of nutritional/calorical analysis bears too many limitations to assess the inherent value of a food culture. Feuer emphasizes that a more contextualized qualitative analysis of food systems is highly needed to better define the meaning of the "quality" of a meal. Positing the limits and biases of nutritional science, Feuer joins the cohort of social scientists advocating for the advent of the ethno-scientification of food.

Nhat Thuan Nguyen Ho et al. endeavour to chemically analyze "Khaomak", a traditional dessert from Thailand made of fermented glutinous rice and which is considered "healthy" in popular beliefs. Nhat posits that both processes of cooking and fermentation may have positive affects on the "healthiness" of the dish. She hypothesizes that rice fermentation notably may liberate phenolic compounds into free form, which improve permeation of the gastric mucosa; this condition may constitute a preventive factor for a better human health.

Results of her analysis clearly show that cooking and fermentation have contrasting effects: cooking reduces liberation of free phenolic compounds, while fermentation increases the latter. Overall, Khaomak, if made with pigmented rice, may still provide a remarkable amount of phytochemicals, which in turn helps to prevent people being affected by free radical and chronic diseases.

Aujcharaporn Pongpichaiudom & Sirichai Songsermpong envision a similar purpose in their research. Instead of scrutinizing traditional and allegedly healthy food, they proceed with analyzing industrial food: instant noodles, and more specifically 'enriched protein instant noodles' (EPIN), which is produced by adding chicken meat, egg yolk and seaweed. The authors chose to experiement with an alternative method of cooking, i.e. drying the noodles with a continuous microwave oven instead of deep frying in oil.

Findings are three-fold. Enriched protein instant noodles (EPIN) supplemented by chicken meat, egg yolk and seaweed, and dried by a continuous microwave oven is proven to increase protein content by a percentage higher than 25% (when compared to traditional noodles) and also reduced undesirable oil in noodle strands. Organolepting qualities were also improved thanks to hydrocolloid supplementation in cooking, textural and microstructure properties. Finally, palatability was well rated by the consumers' panel, which potentially makes EPIN a highly acceptable and convenient food product.

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THE HIDDEN VALUE IN INDIGENOUS VEGETABLES: INCORPORTING NUTRITIOUS PLANTS INTO THE MALAYSIAN DIET

Rachel Thomas Tharmabalan

Abstract

Healthiness and nutritional well-being depend on good nutrition, which in turn relies on agriculture and the environment to provide a balanced diet that meets our dietary needs for energy, protein, vitamins and minerals. However, the three main staple foods i.e. maize, wheat and rice contribute to 60% of the world's calorie intake. Malaysia is blessed with beautiful tropical rainforests that are very rich in biological resources; there is no doubt that the different plant species growing wild or semi-wild and free have the potential to contribute to diet diversification and provide sources of nutrient-rich foods. Yet, only a negligible percentage of these plants have been utilized. These indigenous species remain unexploited due to the lack of information and research on their potentials. Currently, traditional knowledge of plants is only mastered by the older Orang Asli generations as they are the ones who had been growing and cooking these wild plants. A lot of the knowledge has been lost even in the most rural of areas as the consumption of these plants has decreased drastically over the years. Therefore, it is imperative to collect and document the full diversity of indigenous vegetable species and other important food plants found in Malaysian jungles. An exploratory survey was carried out and four indigenous plants (Saya, Sendap, Berpaku and Meranti) were identified in all main aspects of the food system namely the edible parts of the plant, cooking and eating methods, knowledge of medicinal value and other potential uses of these plants. The nutritional, economic and social impacts of these plants were also discussed. The results generated in this survey showed that opportunities exist in forming partnerships between the Orang Asli people and science to develop indigenous plants for commercial purposes.

Keywords: Malaysia, indigenous plants, traditional food system, nutrition

Introduction

Food is an abundant resource, and we have enough produce to support the entire world's population. However, it was recently estimated that roughly 12 percent of the world's population is not able to meet the recommended dietary energy requirement with Asia Pacific accounting for more than 60% of the population suffering from chronic hunger (Konuma, 2013).

The three main staple food worldwide – maize, wheat and rice – contribute 60% of the world's calorie intake (FAO, 2013). As humans undergo economic and technological changes, from being hunter gatherers in encampments to settlements and ultimately to urban living, diets have also changed significantly in two ways. Firstly, human food patterns reflect a lower intake of domesticated plant staples. Secondly, edible wild species that were once consumed to sustain health and nutrition have been reduced and subsequently eliminated from the diet staple.

Capitalism and the industrialization of globalized food production has transformed the nature of food, causing people to buy and ingest industrial foods which are fast, low-

priced and high in calories. This industrial diet has significantly weakened the local gastronomy in many first world and developing nations. The French sociologist Claude Fischler (1998) conceived the concept of gastro-anomie, which successfully explains the de-structuring of food diversity and consumption, coupled with consumer concern and apprehension which can be seen happening everywhere. Anomie is being experienced by the present society due to the absence of social cohesion or group solidarity around food choices, resulting in the inability of individuals to create an identity through food. Individuals are making more individualized food choices, which can be clearly observed through the increasing number McDonald's restaurants since 1982. There are approximately 300 McDonald's outlets in Malaysia to date.

It is not surprising that Malaysia has the highest obesity rate in Asia (The Lancet, 2014). Take a quick look at what the average Malaysian diet consists of: white rice, sugar, and oil are the staples, with limited amounts of fresh fruits, vegetables and whole grains that are below the recommended amounts. There is also the vast selection of condensed, sweetened beverages like the 'Teh Tarik' (pulled tea), caffeinated drinks, and Milo. This diet is causing the population to take a step backwards in terms of human health, community life, and the environment.

It's obvious that a serious paradox exists in today's world. While approximately 800 million people are suffering from nutrition deficiency and hunger, another 2.1 billion people are suffering from non-communicable diseases, and this number is expected to rise to 2.5 billion by 2020 (United Nations Food and Agriculture Organization, 2015; The Lancet, 2014b). What emerges from this paradox is the realization of seemingly disparate and unrelated topics (obesity, environment, flavour, family meals, and hunger) being interconnected.

Almost a century ago, the estimated number of plant species used as food was roughly around 100,000. These plants, at some point in time, had offered important flavours and textures apart from supplying the essential nutrients needed to be healthy. Yet, only 2% of these plant species are utilized, downgrading indigenous plants to the level of underutilized crop species (Chivenge et al., 2015).

Underutilised plants are frequently found growing wild and free in marginal areas, therefore being regarded as a 'poor man's' staple. However, they are crucial in local food and eating systems as they are an inherent part of local culture, still used in traditional food preparations, and are the focus of present food movements to restore culinary traditions.

As a tropical country, Malaysia is rich in biological diversity. Out of the 15,000 species of vegetable plants available, only 300 species are indigenous to the country and have been used as food (Ministry of Agriculture, 1996). In light of these interconnections, it makes sense that food issues figure prominently in our modern public discourse, and that many are calling for a return to a more humane and harmonious method of growing, cooking, and eating.

Research has shown that indigenous, wild edible plants can be rich sources of micronutrients (vitamins and minerals), fat content, and protein quality (essential amino acids); hence, they can be used to alleviate food shortages while ensuring a variety of intact nutrients that can enhance and improve the nutritional wellbeing and health of the people in developing and underdeveloped countries (Yang and Keding, 2009).

The Orang Asli, also known as the Aboriginal People, is a term used to describe the indigenous people found in Malaysia. The Orang Asli tribes in Cameron Highlands still rely heavily on forest resources such as mountain rice, maize, tubers, sweet potato, ferns, herbs, vegetables, and taro as their source of income and nourishment. These foods represent cultural pillars within distinct eco-cultural landscapes. They are central to the livelihoods and age-old traditions that bring people together around food cultivation, production, and eating. It has been estimated that as of 2015, the number of indigenous people found in Malaysia roughly accounts for 13.9% of the 31 million total population (International Work Group for Indigenous People, 2015). They were divided into 3 main groups during the British Occupation as a way to govern them in those days namely the Negrito, Senoi/Semai and Proto-Malay (Juli Edo, 2006). Before the cultural, nutritional and medicinal knowledge of underutilized plants is lost forever, it is essential to tap into the indigenous people's knowledge as they are the ones who have been interacting with the local surroundings for ages to provide sustenance and to help generate income. This knowledge has been primarily passed down orally or through observations from one generation to the next i.e. a huge contrast from present knowledge. Therefore, it is imperative that we study locally available and underutilized plants especially in terms of their availability, diversity, culture, usage, nutritional benefits and potentials. The knowledge obtained will allow the population to gather a deeper understanding of these plants and on how to incorporate and diversify their diet while also strengthening social cohesion.

Area of Study

The study was conducted in Cameron Highlands at the Northwestern tip of Pahang and is one of Malaysia's highlights in biodiversity for wild food plants. Cameron Highlands has a population of 38,000, its main economy is farming (Department of Statistics Malaysia, 2010) and 60% of Malaysia's vegetables are grown here. The vegetation changes as we go deeper and higher into the terrain. Cameron Highlands lies at an altitude of 800-1600m above sea level and has a tropical highland climate, with a mean annual temperature around 18^{o}C. During the day, temperatures can go up as high as 25^{o}C, but it rarely happens, or it can drop as low as 9^{o}C depending on the altitude; therefore, vegetables can be grown all year round (De Souza, 2010).

Cameron Highlands has abundant natural resources and is home to many exotic animals and species that are rare to the tropics, some of which are very vulnerable to endangerment in the future. This constituency is also known to still harbour forest dwellers i.e. Orang Asli in the various settlements and also tea plantations. Three village settlements were specifically selected for this paper namely Pos Brooke, Telimau and Sungai Jarik. The indigenous people from all 3 villages are from the Senoi tribe. They are bilingual and most are able to speak fluently in Malay. The settlement in Sungai Jarik is deeper in the jungle as compared to Pos Brooke and Telimau. All these villages are built near rivers; however, all 3 rivers are muddy and polluted due to soil erosion as several glass houses and rain shelters are built nearby.

Materials and Method

Semi-structured interviews were conducted involving 15 indigenous people, which consist mainly of the older generation, followed by species identification. Ten of the

informants were males and the rest were females aged between 38 to 63 years old. A multi-site study was done in the three villages to gain in-depth knowledge about the indigenous plants. The Orang Asli were interviewed about the local names of edible indigenous wild plants, edible parts of the plants, cooking and eating methods, knowledge of medicinal value and other potential uses of those plants.

Results and Discussion

Cameron Highlands has a diverse range of wild vegetables that play a vital role for the indigenous people, not only as a form of food supply, but also as a source of income through sales by the roadside and at the local vegetable markets. The indigenous people are well versed with their surroundings, and more importantly, are aware of the traditional knowledge associated with these plants.

From the semi-structured interviews, a total of 4 indigenous plants were identified including Saya, Sendap, Berpaku and Meranti. For this paper, we will be focusing on indigenous plants that are not sold, but are consumed by the Orang Asli. Food obtained from the jungle play an integral part in their diet, providing the bulk of their nutritional requirement. The population in all the 3 villages consume different types of vegetables and they had a different name for the 4 plants being studied. This is because even though they are from the same tribe, different accents and dialects exist between the various settlements. When we arrived, things did not start off well as the Orang Asli community was suspicious of our motives. After telling them who I was and what I came for, they slowly started warming up. They are a close-knit bunch, gentle, friendly, helpful and eager to show me the various types of vegetables.

Most of the informants indicated that vegetables were picked daily, preferably before cooking, if they were collected from around the settlement and river. If the vegetables were from the jungle, they will cook them in less than 3 days; this is because they recognize that freshly cooked vegetables generally taste a lot better. Out of all the indigenous vegetables consumed by the Orang Asli tribe, it is found that the Meranti/kera (Figure 1) has the best potential benefits as it is a very multi-faceted plant. Not only can it be used to treat high blood pressure, the various parts such as leaves, stems, young stems and flowers can also be consumed. Noticeably, 80% of the Orang Asli indicated the importance of this fern in their livelihood and in their diets. According to the village headman in Telimau, the Meranti is commonly found in the jungle all year round. Its bitter taste renders it to be highly regarded as compared to other vegetables. This is because the Semais associate restorative properties with bitter taste. The Meranti is usually stir fried with sambal belacan (chilli paste), garlic, ikan bilis (anchovies) or made into soup for medicinal purposes.

At the Pos Brooke village, a type of fern known as 'Saya' or "Pama" (Figure 2) by the other two settlements can be seen growing wild near the river bank. It is not slimy and is usually stir fried with various types of exotic meat, oyster sauce and garlic, and is eaten with rice. The leaves and the shoot can be eaten. Sendap (Figure 3) is only consumed by the Orang Asli in Sungai Jarik. The indigenous people in the other two settlements have never seen it before. It is a type of fern which has a sweet taste to it, and is not slimy either.

Berpaku (Figure 4) was also found in Sungai Jarik, and is known as Rebu in the other two settlements. It is slimy and has a very strong smell to it. The soft part of the stem can be cooked and eaten together with the leaves. The smell of the leaves is so strong that it is also used as an insect repellent. The plethora of flora and fauna can be collected without any difficulty from the forest and the cost associated is negligible as there is no need for pesticides and expensive equipment for hunting.

See photographs on next page.

Figure 1 : Meranti/ Kera

Figure 2 : Saya / Pama

Figure 3: Sendap

Figure 4: Berpaku

Based on my empirical observation on these 3 villages, the double burden of malnutrition can be observed among the indigenous people, whereby mothers tend to be obese while their children are underweight or are experiencing stunted growth. Out of the 15 informants, 4 of them were overweight and on the verge of obesity – and they were all women. This has a lot to do with "nutrition transitions' in their diet, as they consume large amounts of refined carbohydrates coupled with a sedentary lifestyle as the men go hunting while most of the women stay home, cook and look after their kids.

The Pos Brooke settlement is close to the main road, and the residents are slowly changing their diet to be more dependent on commercial food supplies such as rice, flour, oil and sugar. It does not help that the government provides these rations for them. As most of them do not have well-paying jobs, these products are purchased on credit. Store keepers will supply them with the products they need and the Orang Asli in turn will pay them with produce from the forest such as honey, rattan and even exotic animals.

Consequently, we may presume that the Orang Asli community is at the crossroads of a double dependency on food. This double dependency represents a metaphor of the modernisation process. The dependency on the local government for food rations represents access to modernity in the form of all the harmful nutrients: refined carbohydrates, fats, and sugar. On the other hand, the dependency on the forest represents the upkeep of tradition: hunting, gathering, eating fibers and vegetal proteins in the form of wild plants and fruits. The gender dissociation is based on the allocation of the traditional roles, but reflects in practice the duality of lifestyles (sedentary/modernity vs ambulatory/traditional) whereby the health consequences are strikingly visible when comparing body shapes. The dramatic change of diet in recent years has much to do not only with political forces, but also social and economic aspects. The same pattern can be observed in other indigenous tribes worldwide which has caused damaging effects (Crowther, 2013). Before non-communicable diseases become prevalent among the indigenous people, they need to be educated about the negative effects of junk food and the benefits of eating the same foods as their forefathers.

In order to increase the output and promote these plants as mainstream food in the future, more has to be done to examine and fathom the essential necessities needed by these plants to thrive. After vegetables are harvested, they lose moisture and are still viable and continue to respire, which then leads to the degradation of their appearance, texture, flavour and vitamin contents. Post-harvest studies have to be directed on these vegetables to come up with methods to ensure their quality and freshness. Extending the shelf life of these vegetables by using various processing and preservation techniques such as drying, fermenting and pickling can also help strengthen and boost the income of the indigenous people. Many times, processed products have a higher market value in comparison to fresh produce.

To ensure that the micronutrients and antioxidant properties of these indigenous plants are preserved, it is important to take a look at their methods of preparation. When cooked, vegetables undergo several changes in terms of texture, flavour, odour, colour and nutrient retention which will then play a factor in vegetable selection by consumers. The Orang Asli prefers stir frying over boiling because the latter causes the dish to be visually unattractive and the texture soft and mushy. Therefore, more research needs to be done in understanding the changes that occur in indigenous plants so that the beneficial compounds and qualities can be retained as much as possible. New recipes need to be

developed with other types of ingredients and flavours suited to the local taste of urban Malaysians and served in an appealing way.

People's eating habits are largely based on their relationship with food and societal conditions, which then boil down to the ability of these plants to fit into their social lives, even though they are not rooted in their own cultural tradition. Despite the diversity in Malaysian culture, the consumption of traditional plants is still not as popular as compared to other countries, which is possibly why these vegetables and plants are not known to Malaysians in general. When Malaysians start revamping their diet, they will start looking for alternative plants which will then enhance the usage of indigenous plants to diversify their diet as well as motivate farmers to look into methods to domesticate these plants.

This research proved to be challenging in terms of identifying and classifying the various plants as indigenous, naturalized, wild or exotic, as the past colonial powers have at certain points introduced various plants during their reign. Each and every classification bears its own meaning, and the lack of proper documentation and historical records in Malaysia has made the task even more difficult. In order to ensure the successful integration of underutilized plants into the mainstream diet, understanding the nutritional and cultural traditions is also important to preserve ethno biodiversity.

Conclusion

The key to future food and nutrition security may very well lie in the untapped potential of underutilized plants. The Orang Asli have been consuming these plants from generation to generation and they are equipped with an ample amount of knowledge on forest commodities, exotic animals and jungle trails, which can be used to plant new plants and strengthen sociocultural ties. Opportunities exist for them to improve their income, food security and nutrition through improved utilization of underutilized plants. The wild vegetables selected in this study could be a good source of micronutrients and natural antioxidants in alleviating the negative aspects of the 'industrial diet' on the societies, especially the urban populace. In order for a thriving food system to exist, there has to be a balance between food choices, traditional food culture and the accessibility of food. Besides the natural attributes of these underutilized vegetables such as higher resistance against diseases, these vegetables are more adaptive to harsh environments and are grown less intensively, which allows them to be considered as new food plants in order to broaden the diversity of human diet. The outcome of the survey also implies that these plants have favourable effects on health-related issues such as reducing blood pressure levels and preventing diabetes. The various disparities and the dearth of nutritional information indicate the remaining gaps in these studies that require further research to reaffirm claims made by the indigenous people. It is essential to assess the significance of these plants and their impact in ensuring food and nutrition security.

As this is an on-going process, a comprehensive documentation through the evaluation of current conditions, nutrition and societal demands (customs, families and relationships) of these edible plants and ethnobotanical studies should be carried out to ensure the positive impacts of these plants. Given the common threads linking food, health, and environmental well-being in traditional societies, there is no better time than now to highlight the prospective benefits of these indigenous plants.

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Author's biography

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THE LOCAL WAY: REDISCOVERING NUTRITIOUS MALAYSIAN CUISINE

Tan Kean Buan

Abstract

The multi-ethnic identity of Malaysians is clearly reflected in their cuisine. However, recent statistics have shown an alarming increase in non-communicable diseases (NCDs) due to unhealthy lifestyles and diets. While it is crucial to be physically active, diet plays an equally important role in reducing the onset of NCDs amongst Malaysia's growing and aging population. Lately, 'healthy diet trends' tend to lean towards Western concepts where many of our local cuisines are looked upon as 'unhealthy'. Many Malaysians consider foreign healthy foods as the healthier options. Oats for its beta-glucan contents is an example. Local favorites such as *nasi lemak* (coconut enriched rice) are often branded as unhealthy. This research aims to look at healthy alternatives, ingredient and recipe-wise, that are more affordable and accommodating to a wider audience. Local folklores and cultures of eating are suggested as additional key motivators in healthy eating. A survey of local publications including books, blogs, journals and social/online media are accessed to gauge the local perceptions of healthy cuisine. The conceptual dichotomy of healthy eating versus eating well is primarily discussed. This research aims to accommodate the social aspects of eating well, limited by general nutritional needs and does not specifically cater to the clinical dietary recommendations for NCDs.

Keywords: Malaysians, ethnicity, cuisine, eating-well, healthy-eating.

Introduction

Eating is a necessity to sustain physical and bodily processes such as repairing and growing cells, suppressing hunger and sustaining energy level. As per Maslow's hierarchy of needs, humans need to eat, drink, sleep and reproduce in order to ascend to the next step of requisites. However, due to the gratification and pleasure derived from eating, the idea of 'eating to live' has now transformed into 'living to eat'. The notion of eating in developed countries may be for hedonistic pleasures and for fulfilling social functions, and is not limited to basic biological survival needs. Thus, the determinants of our eating habits have become even more complex.

Generally, Malaysians are known to enjoy their food all round the clock which comes in addition to their daily "three main meals" of breakfast, lunch and dinner. Snacks in between meals are common including late night suppers. The many 24-hour run restaurants and eateries reflect this culture, particularly in the urban lifestyle scenarios. Food is no longer a necessity for sustenance, but has become a pleasurable item in social forms (Jala, 2015).

However, the unguided indulgence in 'pleonasm' has resulted in many diet-related non-communicable diseases (NCDs). According to the World Health Organization (WHO), NCDs are on the rise in many parts of the world, Malaysia included (World Health Organization, 2014). While access to formal or informal education on "healthy eating" has become more available via the advancement of information technology, the statistics of NCDs do not reflect positive responses; rather, more Malaysians are being diagnosed

with Type 2 diabetes, stroke, cardiovascular diseases, obesity and others (Omar & Mustapha, 2012). Health practitioners and authorities are still trying to pursue new efforts via medical research, publication and campaigns while the general Malaysian public seems content with their acquired dietary habits.

Responding to such reports, many Malaysians are trying to eat more "healthily" as a conscious effort to battle the onsets of NCDs. This phenomenon is clearly reflected in the many "healthy" foodscapes that are storming into the local food supply and service businesses with products ranging from organic produces to diet specialized restaurants such as Simple Life Healthy Vegetarian Restaurant and MediFoods. Retail outlets are not spared from the concept of "*nutritionism*" (Scrinis, 2008) where the supermarket shelves are now displaying "beta glucan" in oats, "vitamin C" in juices and even "calcium" enriched orange juice.

It is currently unclear as to how healthy eating is perceived, let alone practiced in the Malaysian context. Dietary recommendation guidelines introduced by both government and non-government agencies although "scientifically sound" do not seem to have the desired impact on the general public. This nation is still getting fatter and sicker. Could this be due to the lack of popular social representations which act as the real motivators to healthy eating? Much of the guidelines focus mainly on "scientific evidences" which "strip the soul" out of the many favorite local dishes which are rich in traditions and nostalgic embodiment.

This study will attempt to construct the concept of eating well as opposed to the notion of healthy eating which often translates into a "*nutritionism*" mindset. The basis for this approach does not discount the many social discourses where eating is at the forefront and the value of cuisine becomes the primary focus.

The World Health Organization (WHO) estimates a 17% increase of NCDs globally accounting for 80% of deaths (Islam, Purnat, Nguyen, Mwingira, Schacht, & Frösch, 2014). Malaysians are also a part of this statistic in which its current morbidity is related to the four main NCDs namely cardiovascular diseases (36%), cancers (15%), chronic respiratory diseases (7%), diabetes (3%) and other NCDs (12%) causing a total of 73% NCD-related deaths (World Health Organization, 2014). Lifestyle is conceptualized as active vs. sedentary and high vs. low level stress, while diet relates to the daily amount and type of food intake. It is observed that many who are already suffering from symptoms of NCDs have not successfully changed their dietary habits to support progressive healing while those that are currently without symptoms of NCDs seem to be applying healthy eating patterns (Norimah, et al., 2008). Malaysians generally consume certain nutrients in access such as sodium which exceeds the WHO's daily recommendations according to the Malaysian Adult Nutrition Survey (Zainuddin, et al., 2014).

Ethnic Malays (13.6%) and Indians (13.5%) rank among the highest in obesity prevalence while the Chinese has a much lower prevalence at 8.5%; there seems to be very little difference between urban and rural populations which is at approximately 0.7% (Rampal et al., 2007). Hypertension is highest amongst the Chinese (46.6%) followed closely by the Malays (43.4%) and lowest among the Indians (>5%); meanwhile, the prevalence of diabetes mellitus is highest among the Malays (46.9%) followed by the Chinese (38.6%) and again lowest among the Indians (app.10%) (Sivasampu et al, 2012).

Healthy Eating versus Eating Well

Healthy eating generally focuses on the science of eating where nutrition "comes first" and its application to dietary advice is usually on the nutritional contents as the main guiding basis for choosing food (which contains the "required" nutrients). In this case, healthy eating is usually informed by nutritional science.

A dichotomy of "two-social realities" exists between healthy eating (authority-defined) and eating well (everyday-defined). The former describes a social reality that is observed and interpreted while the latter is experienced (Shamsul, 1996). It is due to this fact that the discourse of "eating well" should take precedence over "healthy eating" in developing and encouraging logical and suitable eating patterns since eating well is socially cum-culturally informed. This dichotomy may also be one of the key factors that could explain the reason why patients with NCDs do not subscribe to medical prescription. Medical prescription requires patients to become compliant to a normative diet designed by the medical corporation: this institutionalized diet represents the authority-defined social reality.

Malaysians do not necessarily view healthy eating as the act of consuming nutritious foods; rather, the main drivers of their food decisions could be dictated by social discourses such as food taboos, religion, ethnicity, social class, economic status, community and peer pressure. Therefore, "healthy eating" in the Malaysian context is expressed more as "eating well" in the everyday-defined reality of the society when they shift from being patients to being back in their social milieu.

The general rule of Traditional Chinese Medicine (TCM) is to know and balance an individual's constitution, thus preventing, lessening or promoting the recovery from diseases. Dr Zhang (Zhang & Yao, 2012) explains that there are three basic functions of healthy foods which are "for basic daily maintenance; for pleasure, relaxing, socializing and response to satisfying certain emotional needs; and for healing, reducing illness, and maintaining and promoting good health." Foods via traditional Chinese medicine are often viewed as possessing Ying and Yang properties, which simply refers to cooling or heaty foods.

Religion and "way of life" connected to the belief in the "after-life" dictates the way Indians consume their food both in the ritualistic and practical manner. Their cooking ingredients and methods often follow the philosophies of *Ahimsa, Ayurveda*, *Sattvic* or *Sattva* which prohibit the killing of other living beings for food. Hence, vegetarian cuisines are among the more popular cuisines in the Indian community's diet (Balakrishnan, 2001). Ingredients may also be clustered into *rajasic* (stimulant foods) and *tamasic* (sedative food).

The Malaysian Malay ethnic group does not seem to have a documented structure of any healthy eating concept. Much of the social media contents and internet search results on the subject indicate the adoption of generic food pyramids or adaptation of Prophet Muhammad's observed way of eating. Dietary advices do exist however in the form of *pantang larang* (taboos) and *petua* (folklore) (Salbani et al, 2014).

A common greeting amongst Malaysians would be "*sudah makan*?" literally translated as "have you eaten yet?" which signifies the importance of being "properly fed" or "having

enough to eat". Another common scenario amongst family members would be that when a family member loses weight, either intentionally or unintentionally, questions would be triggered amongst the relatives. A husband that is thin would sometimes result in the wife being questioned/interrogated for "not taking good care" of her husband. On the other hand, when the husband is overweight, he is often labelled as being prosperous. Such assumptions may contradict the opinions of medical practitioners and healthcare professionals.

Discussion

On the surface, it would seem that nutritional sciences are "the way to healthy eating" and therefore should translate into the main guide for daily diets in order to "stay healthy". However, its role remains less effective with many contradictions and disbelief or simply ineffective in educating the Malaysian public on adopting "healthy eating". The diversity of ethnic influences, the "oneness" of social practices as well as practicality aspects such as availability and affordability remain the "default of eating" that ultimately decides how Malaysians choose to eat their food.

Perhaps a key approach to eating well for Malaysians may be realized by emulating Japan's adaptation of the "Western science-informed" concept in healthy eating.

The Japanese perspective via *shoku-iku* (food education) promotes cultural eating as the main guide with adaptation to the food pyramid where Japanese cultural foods are grouped together in the form of a "spinning top" with tea/water being highest in the recommended amounts, followed by cereals/grains, vegetables, meat/fish and lastly milk and fruits (Ministry of Agriculture, Forestry and Fisheries Japan, 2005). Post World War II, Japan faced public malnourishment and adopted a Western diet as an immediate response, but resulted in over-nutrition with undesirable effects. It is with this emerging problem that the Japanese government initiated *shoku-iku*, encouraging new professions such as "diet and nutrition teachers" empowered to dictate and guide school meals while educating parents about the preparation of meals at home (Nakamura, 2008). Much of it entails the transmission of Japanese folklore in which many cultural reference points are embedded to conceive cooking healthily, maintaining a disciplined diet and being an efficient home economist. It is not just about the types of food cooked and eaten, but also the manner in which food is served and consumed which determines a healthy outcome such as pairing rice with soup. The rice bowl being particularly small prevents it from being overfilled, while each of the accompaniments is also served in small but attractive ways. Hence, instead of "rushing" to eat, one tends to savor the food. Alternating foods with various macronutrients will also prevent blood sugar from spiking. There is an ancient Japanese saying, "one that eats till his stomach is 80% full will live a long life".

Malaysians are also not short of their own local *petua* (folklores) that apparently have guided our ancestors in eating well. Perhaps it is a good time for an adaptation phase where our government's health policy merges the said folklores into the commonly used "Western-informed" nutritional guidelines. As it is, even the scientific evidences on nutritional research continues to be in constant conflict with its argument of "what's good" and "what's bad". The "fat" debate for instance which has been advising the public to stay away from saturated fats and encouraging the consumption of unsaturated or polyunsaturated fats was recently disputed. In recent studies, scientific evidences are emerging that fats have been "wrongly blamed" as being a "health villain". Consumption

of fats does not necessarily result in the promotion of obesity. Many have returned to eating saturated fat from "natural" food sources such as butter and meat in response to these evidences (Teicholz, 2014).

By incorporating *petua* into our eating guidelines, the trust of cultural assimilation within the everyday-defined is embraced while projecting the local concept of eating well which contradicts unfamiliarity (Western-advised *nutritionism*). In the West, many of its own folklores were also recorded such as the recommendation of not drinking water during a meal, which is said to "dilute" the acid in the stomach therefore disrupting digestion. Dr. Hay, founder of the "Hay system" emphasizes that foods such as starches and proteins should not be eaten together in a meal, elaborating that the "wrong" food combination would lead to improper digestion (Grant & Joice, 1991). Advanced cultures in the Western world is also said to have resulted in the birth of new dietary rules that are not necessarily health-related but strengthens individual group identities, therefore emphasizing the social stigmas of "othering", often appearing "cult-like" (Fitzgerald M., 2014).

Conclusion

Japan's strategy to encourage healthy eating via its *shoku-iku* that incorporates diet and nutritional sciences, while not overlooking traditional folklores and culture of eating, has been positively received. Malaysia, being rich in its diverse cultures, should also incorporate its *petua* and *pantang larang* into its food education strategies, adapted to the sciences of healthy eating. Much research is still needed to study the logic of our folklores, taboos and cultural practices, and how they can be incorporated into the mainstream knowledge of healthy eating. At this moment, much of it is still limited to inter-generational knowledge inheritance, mostly taught at home. The incorporation of such knowledge would prove to be invaluable as tools to be received and practiced as a formal authority of our food education.

While much of the current efforts in dietary advices provided by organizations related directly or indirectly with Malaysia's Ministry of Health had tried to encourage familial eating, an injection of *petua* driven menu and serving suggestions might enhance its practicality, affordability and familiarity aspects.

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Author's biography

Tan Kean Buan is a lecturer at INTI College, Subang Jaya, Malaysia. A Chef by training, he joined academia after many years of experience overseas. His interest is in creating awareness about the health risks of dining out and the benefits of enjoying home-cooked meals, prepared with local and natural ingredients.

APPROPRIATING NUTRITION SCIENCE TO VALORIZE TRADITIONAL CUISINE IN CAMBODIA

Hart N. Feuer

Abstract

Despite the growing popularity worldwide of Food Studies and other interdisciplinary social science of agri-food systems, analysts of nutrition in developing countries have largely held onto the conservative prescription of nutrient fortification, enrichment, and supplementation. Particularly dominant in international aid discourse, these paternalistic and universalistic mechanisms have not only played a decisive role in guiding government interventions in developing countries, but have also influenced public perceptions about the value and role of traditional cuisine and dietary customs. Competing with this doctrine in Cambodia are accounts from high-profile chefs, cookbook authors and public figures, as well as contemporary food researchers of Southeast Asia, who focus not only on ingredients and nutrient profiles, but also on the everyday experience of nourishment, including dietary customs and food systems. In an effort to bridge the divide between these more culturally embedded approaches and nutritionism, this paper takes an interdisciplinary social science approach to the science of nutritional evaluation. More specifically, I apply the nutritionist's analytical tools to answer the question, Can the inherent nutritional potential of Khmer cuisine for achieving public health outcomes be objectively evaluated? I find that, firstly, nutritional analyses of even simplified representations of cuisine are filled with technical landmines that necessitate the kinds of informed judgments that can only be meaningfully derived from social science research. Secondly, a holistic approach can analyse cuisine both separate from (abstract) and situated in actual eating habits, thereby offering more contextually adapted interventions for dietary improvement.

Keywords: Southeast Asia, Cambodia, cuisine, nutrition, dietary customs

Introduction

Despite the growing popularity worldwide of food studies and other interdisciplinary social science of agri-food systems, analysts of nutrition in developing countries have largely held onto the conservative prescription of nutrient fortification, enrichment, and supplementation. This position relies on the narrative that industrialized countries achieved model health outcomes with simple, rational interventions and that people in developing countries are not expected to have the capacity to feed themselves in a balanced manner. This discourse is threaded into most of the UN Food and Agriculture Organization's 'nutrition country profiles' of the 1990s (for example, see FAO 1999). The FAO has since become more circumspect with such macro-level evaluations, but the momentum of this discourse continues largely unabated under the banners of development intervention and national nutrition policy (a canonical case for Cambodia is the food security discourse found in Ecker & Diao, 2011).

The perpetuation of this discourse does not mean that nutrition programs have necessarily become better over time. In fact, the often contradictory and frustrating

results of such technocratic nutrient interventions are probably not surprising to observers in related fields such as agriculture, public health, food studies, and urban development. In Cambodia, for instance, one finds anaemia without iron deficiency; overconsumption of iodine despite declining salt iodization; decline in under-nutrition overshadowed by even greater increase in obesity; exasperating resistance to supplementation even among child-bearing women (CDHS, 2015, pp. 188–194; Lacerte, Pradipasen, Temcharoen, Imamee & Vorapongsathorn, 2011; Laillou, Mam, Oeurn & Chea, 2015).

Although these examples represent only a selection of broader health and nutrition trends that have, in most respects, improved over the past 15 years, they represent the dangers of isolating specific metrics to the exclusion of the larger context. Indeed, a prominent sub-literature has emerged on this theme, often referenced by the moniker *nutritionism*. To summarize briefly, nutritionism is a paradigmatic discourse that reduces food to functional components while relying on "greatly exaggerated representation of scientists' understanding of the relationship among nutrients, food, and the body" (Scrinis, 2008, p. 42). While it would be unfair to suggest that nutrition and food analysts observing developing countries are unaware of the consequences of nutritional reductionism, they are often under-equipped technically and theoretically to engage with the complex realities of diet. In this paper, I will focus on a factor that is often shifted to the background despite its manifest relevance: namely, the actual food-based diet itself.

By actual diet, I refer to tangible food that is routinely consumed by choice and preference. Surprisingly, this type of 'input' goes largely undeveloped in the nutritional literature about Cambodia. While it would seem ironic that surveys of nutrition rarely consider routine eating patterns, this characteristic is fairly consistent in the relevant numerical data gathering exercises, such as the Cambodian Demographic and Health Survey (CDHS). Even studies of the concept of *dietary diversity* in Cambodia are limited in this respect: one study only tabulated results from the previous 24-hours (Darapheak, Takano, Kizuki, Nakamura & Seino, 2013) while another study (with a recall period of 3-7 days) was designed only to tabulate the food groups but not the actual foods consumed (Olney, Talukder, Iannotti, Ruel & Quinn, 2009). In the conclusions of the latter study (Olney et al., 2009, p. 367), the authors mention a number of limitations of their study, namely that the complexity of measuring food consumption was a major challenge.

The aim of this paper is to break new ground on a method for overcoming the disciplinary biases, methodological challenges, and scope-related issues of evaluating the nutritional dimension of a *food-based diet*. The inspiration for this research comes from two sources: the rise of the seemingly obvious concept of 'food-based approaches to nutrition' (Blasbalg, Wispelwey & Deckelbaum, 2011), and from a recent reading of a selection of Cambodian recipe books, in which the Khmer cuisine is cavalierly described as "fresh", "healthy" and "nutritious". This idealized characterization of the cuisine largely contradicted the FAO depiction of Cambodian nutrition, which is considered to be plagued by over-consumption of polished white rice, poor dietary diversity, and micro-nutrient deficiencies. It seemed that, for such duelling narratives concerning the health of Khmer diet/cuisine to coexist, various limiting factors (perhaps poverty, lifestyles, food marketing) had to be compromising the capacity of the Khmer cuisine to fulfil its 'potential' to adequately nourish the population. Reflecting on this in this paper, I endeavour to evaluate the extent to which the analytical tools of nutritionists are capable

of evaluating the complexities of living food-based diet as understood by a sociologist of food.

Combining recipe book and routine eating habits: a methodological challenge

It is important to begin with the fundamental dilemma facing the field of nutrient composition analysis. On the one hand, analysts are continuously improving the precision with which they measure nutrients in food and are setting ever higher standards for analytical protocols. On the other hand, the diversity of agricultural products and the inconsistency with which food stored, prepared and consumed defy static forms of precision measurement. A quote from one of the core texts in food composition analysis reflects soberly on this dilemma:

> Many mixed dishes, as prepared for consumption, are variable and poorly defined, differing from kitchen to kitchen, day to day, around the world. Analytic data do not exist for most of these foods, and accurate estimation of their nutrient content is perhaps impossible. However, such data are needed, and are routinely being estimated and used. (Rand, Pennington, Murphy & Klensin, 1991, p. 44)

The response to this fundamental challenge, as echoed in older texts such as Rand et al. (1991) as well as more modern volumes such as Greenfield and Southgate (2003), has largely been to double down on more rigorous nutrition evaluation protocols. Strictly speaking, proper measurement requires assessing of the ripeness of fruits being eaten, documenting nutrient loss from 'refuse' discarded in processing, applying ever-more-precise adjustment factors for water loss, fat uptake, and nutrient retention after cooking, and finally quantifying the edible portion of different foods. National governments, international consortia and private companies have, in turn, churned out progressively more detailed food nutrient databases, software packages, and analytical protocols to improve the accuracy of nutrition analyses. In sum, considerable resources have been invested in the science of nutrient analysis even as fundamental pitfalls of such evaluations are routinely aired.

As a sociologist of food, I am both critical and sympathetic to the fundamental challenges faced by nutrient composition analysts. Naturally, I am wary of attempts to simplify diet and cuisine for the sake of analytical expedience and I view many of the challenges to accurate nutrient measurement outlined above as intractable. I observe that nutritionism draws the researcher ever further along a path of abstraction — more databases, more precise laboratory analysis, more comprehensive adjustment factors — all of which achieve greater accuracy but are ultimately still vulnerable to basic dietary idiosyncrasies such as 'adding a pinch of salt at the table' or the vagaries of dipping sauces. Nevertheless, I am more critical of the alternative, which calls for measuring nutrient deficits in humans and remedying these artificially via supplementation with tablets, drops, and fortified staple foods. At least with nutrient composition analysis, a basis for more ethically and culturally neutral food-based dietary recommendations can emerge. To this end, I give traditional cuisines the benefit of the doubt, presuming that they likely evolved to be healthy (Scrinis, 2008, p. 43; Van Esterik, 2008, p. 32). To investigate the validity of this assertion, the following section describes the supplementary social science fieldwork conducted to add credibility to a nutrient composition analysis of everyday Khmer diet.

Balancing Consistency and variability in Khmer Cuisine and dietary custom

In Cambodia, the basic 'common-pot' serving style for meals in homes and soup-pot restaurants includes shared soups and stews, 'with-rice' dishes and individual servings of rice, pickles, condiments and water/tea (Hubert, 1997, p. 171). As part of the daily cycle, noodle soup or leftover rice (often prepared as rice gruel) is often served in the morning, followed by two primary meals for lunch and dinner, which are often centred around soup or stew (Van Esterik, 2008, p. 65). A study evaluating the cuisine's nutritional contribution would ideally observe preparation and consumption where it happens most, namely in the household. In the fieldwork phase of this research, which was carried out over a six-month period in 2014, I piloted research in households but eventually opted for a different setting. The main reason is that dietary behaviour in households is extremely sensitive to changes in family structure, work arrangements, and income. As a result, the dietary customs in each home are less representative of the *nutritional potential of the cuisine* and more an expression of immediate household circumstances. Instead, I elected to study 'soup-pot restaurants', a category I coined to describe the ubiquitous pre-prepared food stalls in Cambodia that prominently display large soup-pots at the shop front. A more detailed explanation of the basis of this choice is available in Feuer (2015).

With the goal of ultimately calculating potential nutritional composition of everyday Khmer dining, I observed the amounts of food eaten by different demographic groups as well as the trends in composition of certain dishes chosen by diners. For example, I might observe a group of five university students choose a large watery soup, a small stew, a stir-fried meat dish, in addition to pickles and condiments. Between them, they consume six 'standard' plates of rice and discard a proportion of each food (typically broth, sauces, and rice). These observations are then reflected upon and amended qualitatively to take note of common, but unrecorded consumption, including snacks, desserts, condiments, and drinks. The focus of the analysis was squarely laid on routine, consistent, and predictable aspects of the Khmer culinary experience.

The recipes that I ultimately used derive from Cambodian cookbooks, websites and embedded fieldwork with soup-pot restaurant cooks to gather consistent and representative proportions and cooking methods. The rationale for these choices, in a broad sense, was to achieve a high degree of reproducibility, transparency, and consistency that is acceptable to nutrient composition analysts while also remaining rooted in rigorous qualitative research of the underlying dietary customs. This meant reviewing the debate about the representativeness of cookbooks going back at least to discussions in the 1980's by Jack Goody (1982) and Arjun Appadurai's (1988), as well as more particular warnings about the awkward role of cookbooks in Southeast Asia (Van Esterik, 2008, p. 41). By building upon a basis of qualitative research in Cambodia spanning more than ten years, I attempted to limit my reliance on, and exposure to, the problematic elements of cookbooks when assembling recipes.

The last step in determining the nutrition of Khmer cuisine is to enumerate the nutrient-content of the food consumed. In order to accomplish this, I conducted recipe composition analyses using nutrient values of individual ingredients from major national and regional databases. In this endeavour, I privileged data from culinary comparable Thailand compiled in the ASEAN Food Composition Database (Version 1, February 2014), but also carefully integrated these data with those in the more comprehensive

database of the US Department of Agriculture (USDA NND, Release 28). Determining the most appropriate entry or substitute often required informed judgment and occasionally demanded compromises in suitability (all of which I documented carefully). For example, many aromatic herb varieties of Southeast Asia were not found in the databases or had limited nutritional data, which necessitated substitution with next-best equivalents. Finally, the nutritional content of recipes was analysed using the most common standards accepted by academic nutritionists and national governments (EuroFIR AISBL, 2015; Greenfield & Southgate, 2003, p. 225; Rand et al., 1991, pp. 41–58).

Conclusion

This paper takes an insider look into the dynamics of food composition analysis with an eye to channelling the scientific legitimacy of the nutritionism paradigm away from fragmented mono-nutrient interventions and toward a more thorough understanding of the embedded food practices upon which societies already depend. As the criticisms of the nutritionist 'gaze' in Southeast Asia are well-documented in the volume by Kimura (2013) concerning Indonesia, as well as more generally in theoretical work (Scrinis, 2008), I take the analysis a step toward practice: by drawing on these criticisms, can we envision a way to apply the principles of more embedded, qualitative research to highlight alternatives to the dominant modality of nutrition intervention? As a sociologist of food conducting a food composition analysis, I created a boundary area that allowed me not only to reflect critically on the epistemology and practice of nutrition analysts, but also to suggest a more legitimate and useful way forward for these analytical tools. As a conceptual paper, however, the discussion here is limited to the methods, justification, and general potential for refining nutrient composition analysis.

The science of nutrition and food composition analysis, when studied from the inside like this, quickly reveals the underappreciated number of entry points for interpretation and judgment, and hence the need for critical social science analysis. While standard-setting texts attempt to impose a measure of scientific rigor and transparency, in practice, there is a limited extent to which this is possible if analysts cannot, or elect not to, gather suitable and adequate contextual data. In fact, the need for attention to context is marginalized in a scientific setting in which an epistemology of incremental technical improvements displaces the more embedded research necessary to claim accuracy and legitimacy. Without a strong backing from social science research, food composition analysis has a limited basis from which to meaningfully contribute to food-based dietary interventions or support more progressive ideals such as eco-nutrition.

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CHANGES OF PHENOLIC COMPOUNDS & ANTIOXIDANT CAPACITY DURING THE PRODUCTION OF KHAOMAK (SWEET FERMENTED RICE) FROM THREE UNPOLISHED GLUTINOUS RICE (*ORYZA SATIVA* L.)

Nhat Thuan Nguyen Ho
Riantong Singanusong
Worasit Tochampa and
Sudarat Jiamyangyuen

Abstract

Khaomak is a Thai traditional dessert, fermented from glutinous rice and a culture of yeasts and molds (Look-bang). Unpolished rice (*Oryza sativa* L), an ingredient for producing Khaomak, is believed to be able to prevent various cardiovascular diseases because of its high content of natural phenolic compounds in rice bran, including anthocyanin and proanthocyanidin. The phenolic compounds in rice have two forms: free and bound. This study aims to analyze the distribution of free and bound phenolic contents, total anthocyanin content (TAC), proanthocyanidin content (TPA), and antioxidant activities (AOA) of 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging and the ferric reducing ability of plasma (FRAP) in Khaomak throughout the production process i.e. raw rice, after cooking and fermentation. Three cultivars of unpolished glutinous rice (white, black and red in bran) were used. The results showed that the phenolic contents (PC), DPPH radical scavenging and FRAP values in the free fraction of black and red rice decreased significantly ($P \leq 0.05$) after cooking, but they were re-gained after fermentation. High correlations were found between PC and DPPH radical scavenging and FRAP assay in free fraction. Proanthocyanidin was found predominantly in red rice while anthocyanin only existed in black rice. TPA in red rice and TAC in black rice (free fraction) were 1.37 ± 0.01 mg catechin equivalents (CE)/g dry weight (DW) and 1.84 ± 0.75 mg cyanidin-3-glucoside (C3G) equivalents/g DW, respectively. Cooking had decreased these values considerably while fermentation exhibited improvement. Total phenolic content (total-PC), DPPH radical scavenging and FRAP values (sum of free and bound fraction) of black and red rice were significantly higher than that of white rice due to the greater amounts of anthocyanin and proanthocyanidin, respectively. Bound fraction accounted for approximately half of the Total-PC in white rice (raw and cooked rice), but were lower than those in black and red rice. These results indicate that cooking reduces PC and AOA of rice while fermentation improves these parameters.

Keywords: Fermented rice, free phenolic, bound phenolic, anthocyanins, proanthocyanidins.

Introduction

Khaomak is believed to be a healthy dessert, made from fermented glutinous rice, which has a long-standing in Thai traditional cuisine. The starter culture named Look-bang is utilized to ferment the rice starch molecules to monosaccharide, alcohol and acid (Manosroi et al, 2011); therefore, the final product has a sweet and slightly sour taste with a mild alcoholic flavor. Many studies on fermented rice or rice bran with different

types of Saccharifying organisms revealed that fermentation process improves the quality and nutrition of the final product. Indeed, the microbial interaction during full rice or rice bran fermentation resulted in good bacteria accumulation and free radical activity scavenging enhancement which is most likely more beneficial for health (Ghosh et al, 2015; Tufan et al, 2013). Another study demonstrated that fermentation displayed a two folds increase in phenolic content (Schmidt et al, 2014), and improved the antimutagenicity which might scavenge the toxic compounds or/and inhibit bacterial enzymes (Sadabpod et al, 2010). Phenolic compounds including phenolic acids and flavonoids are antioxidants that are highly available in rice. Antioxidant is "any substance that delays, prevents or removes oxidative damage to a target molecule" and of which might delay aging (Halliwell, 2007). Some researchers have illustrated that the absorption of flavonoids such as anthocyanin and phenolic acids such as ferulic acid, p-coumaric acid, gallic acid can occur in the stomach and the upper intestine (Konishi et al, 2006; Passamonti et al, 2003). However, the majority of phenolic compounds are bound covalently to the cell wall component which are thought to be hydrolyzed by intestinal enzymes or released by colonic microflora (Min et al, 2012). Therefore, rice fermentation may liberate phenolic compounds into free form which can gain permeation at gastric mucosa and have a preventive effect on human health.

These evidences suggested the importance of characterizing the phenolic content of rice. The objective of this study was to investigate the effect of cooking and fermentation process on the changes in PC, TAC, TPA and AOA that exist in the free and/or bound forms of whole grain glutinous rice of various bran colours (white, red and black).

Materials and methods

Rice materials and cultures

Three cultivars of unpolished glutinous rice (white, red and black in bran) belong to the SME group (Nong Ping Kai), grown in Muang Kampangphet, Thailand. Starter culture or Look-bang was purchased from a local market in Phitsanulok, Thailand.

Cooking process and rice fermentation

The raw glutinous rice was washed with water and cooked using an electric rice cooker. The cooled cooked rice was mixed thoroughly with 0.2% Look-bang (calculated from raw rice used). The fermentation was allowed to occur within 3 days at 25 – 28 ^{o}C. The finished product, Khaomak, was lyophilized by a freeze-dryer and grounded into powder. Cooked rice from another preparation also underwent the same procedure.

Extraction of free and bound phenolic

The method was adapted from Zhou et al (2014) with modifications. Raw, cooked rice and Khaomak were extracted for phenolic compounds. The rice flour was firstly defatted with hexane twice then extracted 3 times with the following solvents: 80% methanol, acetone/water/acetic acid (70/29.5/0.5, v/v/v) and 80% acidified methanol (pH 2.0). Each extraction ran 2 h in the dark at room temperature (25 – 28 ^{o}C) using a magnetic stirrer. The dried extract collected after solvent evaporation was reconstituted with methanol for free fraction analysis.

The residue from the previous extraction was combined with NaOH 4M and stirred at room temperature (25 – 28 ^{o}C) for 4 h. It was then adjusted to pH 1.5 – 2.5 by ice-cold HCl 6M and extracted five times with ethyl acetate (5 x 70 ml). The dried extract collected after ethyl acetate evaporation was reconstituted with methanol for bound fraction analysis.

Determination of phenolic content (PC)

The phenolic content (PC) of the extract (free and bound fraction) was determined using the Folin–Ciocalteu method (Kumar et al, 2012). Total-PC was the sum of free- and bound-PC. The results were expressed as mg of gallic acid (GAE)/g DW.

Determination of total anthocyanin content (TAC)

TAC was determined using the pH differential method (Shao et al, 2014). Two buffer solutions (pH 1 and pH 4.5) were prepared. Each extract was diluted 10 times with 2 buffers and incubated for 15 min in the dark. TACs were expressed as mg C3G/g DW.

Determination of total proanthocyanidin content (TPA)

Total proanthocyanidin content was measured by modifying the method of Sun et al (1998) i.e. by using 1% vanilline and 9N H_2SO_4 solution in methanol as the reagent. The results were expressed as mg CE/g DW.

Determination of ferric reducing antioxidant power (FRAP)

The FRAP method was based on the method by Butsat and Siriamornpun (2010). The fresh working solution was prepared from acetate buffer (pH 3.6), 10 mM TPTZ solution in 40 mM HCl, and 20 mM $FeCl_3.6H_2O$ solution. The FRAP values were expressed as mg Trolox equivalents (TE)/g DW.

Determination of DPPH radical scavenging capacity

The radical scavenging activity was assayed using the method of Gao and Xiao (2012) with slight modifications where 0.1 mM DPPH in methanol was utilized. DPPH radical scavenging data was expressed as mg TE/g DW.

Statistical analysis

The results were presented as means ± standard deviation (SD) of triplicated determinations. Differences among varieties were found using ANOVA, followed by Duncan multiple comparison tests. Statistical significance was defined at a level of $p \leq 0.05$.

Results and discussion

Effect of cooking and fermentation on PC, TAC, TPA in three types of rice

Figure 1 illustrates the alteration of PC during Khaomak production. Overall, the total-PC of pigmented rice was far higher than that of white rice. To be more precise,

the total-PC of red and black rice was 1.5 to 3 times higher than that of white rice. Bound-PC accounted for approximately half of the total-PC in white rice (raw and cooked rice), but only 10 – 20 % of bound phenolic present in black and red rice, which indicates that the phenolic compounds of pigmented rice are predominantly distributed in free form.

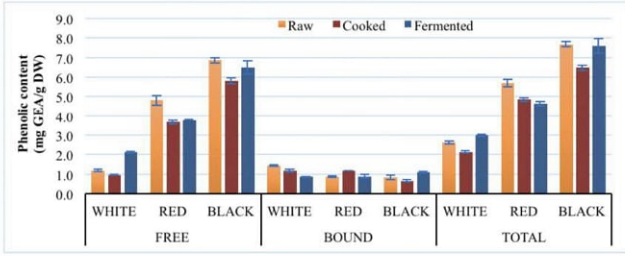


Figure 1: Effect of cooking and fermentation on phenolic content of unpolished white, red and black rice in different fractions (free, bound and total). Mean values indicate statistical difference within a group (free, bound or total) ($P \leq 0.5$).

The PC of raw white rice in free fraction was 4 and 6 times smaller than that of red rice and black rice, respectively. Min et al (2014) reported that the hydrothermal process can degrade free PC in rice which resulted in the significant reduction of free phenolics in red and black rice after cooking. The process can also liberate phenolics from bound to free form. Hence, the PC in white rice seemed to remain unchanged. After fermentation, the free PC of white and black rice increased significantly while only a slight rise was observed in red rice. The action of enzymes produced from molds and yeasts of Look-bang was responsible for breaking the chemical bonds between phenolics with protein, thus promoting the release of phenolics especially phenolic acids which are the major constituents in the cell wall of rice (Manosroi et al, 2011; Ti et al, 2015). The fluctuations of the bound PC during the processing steps may come from the various matrix structures of rice cultivars.

Anthocyanins and proanthocyanidins were not detected in white rice (Table 1). Proanthocyanidin was available in both red and black rice while anthocyanin was only present in black rice. TAC and TPA which remained in bound form were not detectable because of the degradation in high pH medium during the extraction of the bound phenolic.

TAC was significantly decreased by cooking (52 % loss) while fermentation released more anthocyanin in free form which gained 28 % TAC as compared to cooked rice, but it was still significantly lower than in raw rice. The result implied that anthocyanin was mainly in free form and very sensitive to the hydrothermal process. This result is in agreement with the findings of Harakotr et al (2014).

High temperatures also had a negative impact on proanthocyanidins (Xu et al, 2015), which caused approximately 46 % and 44 % loss of TPA in red and black raw rice,

respectively. Fermentation helped in releasing proanthocyanidins which were trapped in the cell wall structure. Additionally, TPA in red rice was found to be approximately seven folds greater than that in black rice after undergoing the same steps of Khaomak production.

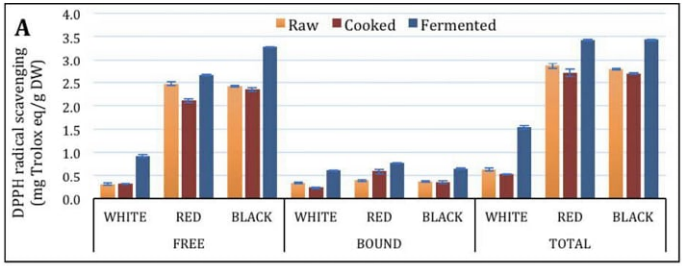
Table 1: The effect of cooking and fermentation on TAC, TPA in three types of rice (free fraction)

	Total anthocyanin (mg C3G equivalents/g rice)			Total proanthocyanidin mg (+)-catechin equivalents/g rice		
	White rice	Red rice	Black rice	White rice	Red rice	Black rice
Raw rice	ND	ND	1.84 ± 0.75^{a}	ND	1.37 ± 0.01^{a}	0.48 ± 0.06^{a}
Cooked rice	ND	ND	1.21 ± 0.48^{b}	ND	0.74 ± 0.01^{c}	0.10 ± 0.02^{b}
Khaomak	ND	ND	1.87 ± 0.50^{a}	ND	0.95 ± 0.03^{b}	0.13 ± 0.00^{b}

*ND: not detected. Mean values with different letters denote statistically significant differences within a group ($P \leq 0.5$).

Effect of cooking and fermentation on AOA in three types of rice

In general, there were significant differences in the mean of FRAP and DPPH radical scavenging values of unpolished rice at different processing stages (Figure 2). Free-DPPH radical scavenging and free-FRAP values were totally destroyed by cooking, which is in agreement with the findings of Sadabpod et al (2010). After fermentation, there was an increase in these values. Bioactive compounds which were present in red and black rice showed greater capacity against oxidation as compared to white rice. The highest values were seen in black rice (raw, cooked and fermented rice). These results are similar to the findings of Plaitho et al (2013).



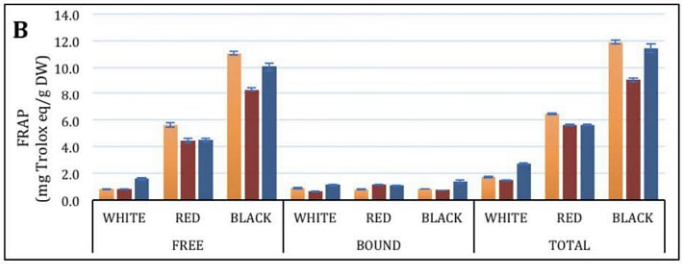


Figure 2: Effect of cooking and fermentation process on DPPH radical scavenging (A) and FRAP (B) values of white, red and black rice. Mean values denote significant differences within a group (free, bound and total) ($p \leq 0.05$).

The change of AOA of each rice cultivar from different assays failed to meet the similar trend (based on the statistical difference within a group) due to the mechanism of each working assay. The effect of antioxidants on DPPPH radical scavenging is due to their hydrogen-donating ability. Meanwhile, FRAP is based on the reduction of the complex of ferric iron and 2,3,5-triphenyl-1,3,4-triaza-2-azoniacyclopenta-1,4- diene chloride (TPTZ) to the ferrous form at low pH (Biswas et al. 2010).

Correlation between rice phenolic compounds and AOA

Table 2 shows the linear correlation coefficients between PC and AOA. There was a strong positive linear correlation between PC in rice and FRAP values (R = 0.984) and DPPH radical scavenging values (R = 0.892) in free fraction. This result indicates that phenolic compounds were the dominant source of antioxidants in rice. TAC in black rice with FRAP values demonstrated a strong uphill relationship (R= 0.904) but the correlation between TAC and DPPH radical scavenging values was moderate (R=0.587). TPA in black and red also worked better in FRAP assay than in DPPH radical scavenging assay. Such results may be due to the different pH of the two assays and the different chemical structures of the phenolic types in rice.

Table 2: Correlation coefficients between phenolics and antioxidant capacities measured in this study

	DPPH	FRAP
A. Free fraction		
Phenolics[a]	0.892**	0.984**
Anthocyanins[b]	0.587*	0.904**
Proanthocyanidins[b]	-0.362	0.714**
Proanthocyanidins[c]	0.480	0.912**
B. Bound fraction		
Phenolics[a]	-0.116	0.061

[a]. Data includes all rice cultivars. [b]. Data of black rice.
[c]. Data of red rice. *. Correlation is significant at the 0.05 level.
**. Correlation is significant at the 0.01 level.

Conclusion

To summarize, cooking reduces the free phenolic compounds in rice while fermentation improves its quantity. Unpolished red and black rice demonstrated better AOA than unpolished white rice due to the high contents of proanthocyanidins and anthocyanins. Thus, the consumption of Khaomak especially those that are made using pigmented rice can provide a great amount of phytochemicals that help in preventing free radicals and chronic diseases.

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MICROSTRUCTURE AND QUALITY IMPROVEMENT THROUGH HYDROCOLLOID SUPPLEMENTATION OF ENRICHED PROTEIN INSTANT NOODLE DRIED USING THE CONTINUOUS MICROWAVE OVEN

Aujcharaporn Pongpichaiudom
Sirichai Songsermpong

Abstract

Enriched protein instant noodle (EPIN) is produced by adding chicken meat, egg yolk and seaweed into the main ingredients which are then dried using a continuous microwave oven instead of being deep fried. However, these ingredients would generally affect the product's quality and result in poor texture. Therefore, 3 hydrocolloids namely guar gum (GG), xanthan gum (XG) and carboxy methyl cellulose (CMC) with 3 measurements (0, 1 and 2 g/100 g flour) were used to improve the quality of EPIN via the response surface methodology. The results showed that the addition of hydrocolloids could improve the quality of EPIN by decreasing cooking loss from 8.51±0.10% to 7.54 ± 0.14% and increasing maximum tension force and maximum distance. In addition, they also promote microstructure improvement with smoother surface and more uniformed porous structure. To ensure optimum condition, the multiple responses optimization method was used taking into account 5 target conditions namely the final moisture content not being over 12% wet basis, optimum cooking time less than 3 minutes, cooking loss less than 10%, maximum tension force between 12-16 g and maximum distance between 14-22 mm. Next, 1.6 g GG/100 g wheat flour and 1.9 g CMC/100 g wheat flour were also added. As a result, the rehydrated EPIN in this optimum condition was accepted by 50 panellists and had presented moderate likeness of the overall acceptability score. In conclusion, EPIN with hydrocolloid supplementation is a suitable product for a fast-paced lifestyle as it offers convenience, acceptable taste, higher protein content of more than 25% than traditional instant noodles, higher fiber and lower oil content.

Keywords: Enriched, hydrocolloid, instant noodle, microstructure, microwave

Introduction

Fried instant noodles have become a popular food because of its easy preparation, acceptable taste and reasonable price. However, the excess oil absorbed in the noodle strands as a result of deep frying affects the quality of the noodles as it produces a rancid taste (Fu 2008). Moreover, instant noodles are deemed to be of low-nutritional value due to their basic ingredients which consist of wheat flour, water and salt. In recent years, there has been a growing demand for foods that are low in fat, non-fried and with additional health benefits. These demands have led to the development of the enriched protein instant noodle (EPIN) of which main ingredients are added with chicken meat, egg yolk and seaweed to increase the nutritional value of instant noodle products. EPIN is infused with higher protein and fiber, and is dried using a continuous microwave oven instead of going through the deep-fat frying process to reduce oil content in the noodle strands and to extend shelf life. However, the physical properties and product quality were generally affected by the addition of the new ingredients. Many researchers found that the addition of hydrocolloids could improve textural properties and enhance the

overall quality of the product. Therefore, the objective of this study was to improve the quality of EPIN by modifying its microstructure through the addition of 3 hydrocolloids. Response surface methodology (RSM) was used to analyze the effect of guar gum, xanthan gum and carboxy methyl cellulose with 3 levels of measurements (0, 1 and 2 g/100 g wheat flour) on the quality of EPIN in terms of cooking qualities, texture and sensory properties, and subsequently propose the optimal condition.

Methods

The preparation of enriched protein instant noodle

The formula for EPIN consists of 100 g of wheat flour, 37 g of distilled water, 2 g of sodium chloride, 10 g of chicken meat, 10 g of egg yolk and 2 g of dried seaweed and hydrocolloids (Table 1). Sodium chloride and hydrocolloids were prepared by dissolving them in 30 g of distilled water before mixing them together. After that, the wheat flour, dried seaweed and chicken meat were mixed together in a mixing bowl prior to adding the egg yolk, 7 g of distilled water and another 30 g of distilled water containing sodium chloride and hydrocolloid. All the ingredients were mixed by hand for 15 min to form a dough with a crumbly texture which is then rested for 30 min. The dough was then sheeted to obtain a thickness of 1 mm, cut into noodle strands using a noodle making machine with a length of 30 cm at 15 gram per piece, and curled using a round shape plastic mould with a diameter of 7.5 cm. The noodle samples were steamed in a steamer for 6 minutes and dried using a continuous microwave oven (PrimAsia Technology, Thailand) with 8 magnetrons at microwave power of 800 watts per magnetron for 3 min and 30 s drying time.

Protein content analysis

The protein content of traditional microwave-dried instant noodle and microwave-dried instant noodle supplemented with 10 g chicken meat, 10 g egg yolk 10 g and 2 g seaweed per 100 g of wheat flour were determined according to a AOAC method (2012, 991.20).

Cooking characteristics of enriched protein instant noodle

The optimal cooking time (OCT) was modified from AACC (2000). Firstly, 25 g of dried instant noodle was boiled in a 300 ml hot water. When the white core in the noodle strand disappeared, the time was recorded as OCT. After that, the cooking and rinsing water of each sample were collected in a beaker and evaporated at 105ºC in a hot air oven until they became dry. The residue was weighed and reported as a percentage of the weight of the dry starch noodle before it was cooked to determine cooking loss according to AACC (2000).

Texture analysis of cooked enriched protein instant noodle

The texture analyses experiments were performed using a texture analyzer TA-XT2 (Stable Micro Systems, Surrey, UK) after cooking a 30 cm enriched protein instant noodle at the optimum cooking time. Texture parameters were measured under tension using the spaghetti tensile grips A/SPR with the testing parameter as follows: pre-test

speed, test-speed and post-test speed of 3, 3 and 5 mm/s respectively, and a trigger force of 5 g. Force (g) and distance (mm) were calculated by a TA software.

Microstructure studied

Dried enriched protein instant noodle in both surface and cross section were fixed onto aluminium stubs and coated with gold. The areas were then investigated by scanning them using the electron microscopy (SEM) (JSM-6400 model, JEOL, Japan). The images were obtained at an accelerated voltage of 15.0 kV at 200 magnifications.

Table 3: Variables, levels and code values employed in a face central composite design

Experiment	Guar gum (X1) (g per 100 g wheat flour basis)	Xanthan (X2) (g per 100 g wheat flour basis)	Carboxy methyl cellulose (X3) (g per 100 g wheat flour basis)
1	0	0	0
2	2	0	0
3	0	2	0
4	2	2	0
5	0	0	2
6	2	0	2
7	0	2	2
8	2	2	2
9	0	1	1
10	2	1	1
11	1	0	1
12	1	2	1
13	1	1	0
14	1	1	2
15	1	1	1
16	1	1	1
17	1	1	1

Establishing suitable formulation

Face-centered central composite design was used to develop models for establishing suitable formulations by objective responses. The calculation of the optimum condition was performed using a multiple response optimization method. Statistical analyses were performed using the MINITAB software version 12 (Minitab Inc., State College, PA., U.S.A.).

Sensory evaluation

Enriched protein instant noodles with and without hydrocolloid were cooked after cooking instant noodle samples for 3 minutes in boiling water. They were subjected to sensory evaluation and served on randomly coded plates with three digit numbers. 50 untrained panellists were asked to assess their degree of liking by using a nine-point hedonic scale.

Experimental design and statistical analysis

The experimental design was the face-centered central composite design (FCCD) with 3 variables (guar gum, xanthan gum and carboxy methyl cellulose) and 3 levels (0, 1 and 2 g per 100 g of wheat flour basis) (Table 1). Analysis of variance (ANOVA) and Duncan's multiple range tests were used to determine the difference of means at a significance level of $P \leq 0.05$ with SPSS Version 16 for Windows (SPSS Inc., Chicago, IL., U.S.A.)

Results and Discussion

Protein content analysis

The protein contents of traditional microwave dried instant noodle (100 g all propose wheat flour, 2 g salt, 47 g water) and microwave dried instant noodle supplemented with 10 g chicken meat, 10 g egg yolk and 2 g seaweed per 100 g wheat flour basis are presented in Table 2. After the addition of the chicken meat, egg yolk and seaweed, the protein content significantly ($P \leq 0.05$) increased from 11.42 g per 100 g dry matter to 16.73 g per 100 g dry matter. This was due to the higher protein content in the chicken meat, egg yolk and seaweed. When the protein content of traditional instant noodles were compared to instant noodles that were supplemented with chicken meat, egg yolk and seaweed, it was found that the protein content of the latter significantly increased to more than 25% of the protein content of traditional instant noodles, which hence could be claimed as an enriched protein product according to the Nutrition labelling notification of the Ministry of Public Health of Thailand. However, apart from high nutritional values, consumers also expect the product to have good texture qualities. Therefore, the addition of hydrocolloids might be able to improve the quality of instant noodles in the effort to achieve balance between the nutritional aspects and sensory quality of the product.

Table 4: Protein content of traditional microwave-dried instant noodle and microwave-dried instant noodle supplemented with chicken meat, egg yolk and seaweed

	Traditional instant noodle	Instant noodle supplemented with chicken meat, egg yolk and seaweed
Protein content (g/100 g dry matter)	11.42±0.38	16.73±0.06*

Effect of hydrocolloid on enriched protein instant noodle cooking qualities

Cooking quality is a very important parameter in determining the acceptability of noodles by consumers. The optimal cooking time (OCT) refers to the time required for

the white core in the noodle strand to disappear which depends on the hydration rate of the major components such as starch and protein. The response surface plot of the hydrocolloid interaction on optimum cooking time showed that OCT increased when the hydrocolloid concentration were increased (Figure 1A and B) because the presence of gum influenced the gelatinization characteristics of starch by increasing the onset gelatinization temperature (Chaisawang and Suphantharika, 2005). The highest optimum cooking time condition was found with the addition of xanthan gum due to the inhibition of starch swelling, starch gelatinization and prevention of amylose leach out, whereas guar gum seemed to have no effect. The cooking loss parameter could indicate the structural strength of the noodles which require less than 10% of the cooking loss of cooked noodle. The addition of all the hydrocolloids significantly decreased cooking loss when compared to the controlled item. With regards to the response surface plot, the addition of hydrocolloid at 2 g concentration showed lower cooking loss than 1 g concentration (Figure 1C and D) which was similar to the finding by Silva et al (2013) that the noodle containing hydrocolloids had good cooking quality with lower cooking loss. The lowest cooking loss was found in the addition of CMC (Figure 1D) because electrostatic complex with gluten proteins was formed with the addition of CMC which increased the gluten network strength and reduced cooking loss (Ribotta et al, 2005).

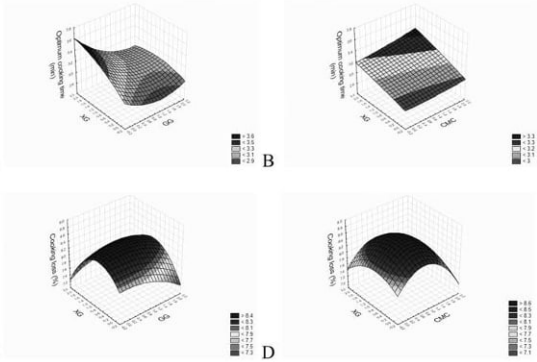

Figure 3 Response surface plots of: A. optimum cooking time of EPIN with XG and GG, B. optimum cooking time of EPIN with XG and CMC, C. cooking loss of EPIN with XG and GG, and D. cooking loss of EPIN with XG and CMC.

Effect of hydrocolloid on enriched protein instant noodle textural properties

Texture of the noodles is an important attribute in determining consumer acceptance which entails a smooth surface, firm texture and good taste. In this study, maximum tension force indicated noodle tensile strength whilst maximum distance indicated noodle extensibility. All conditions involving the additions of hydrocolloids significantly increased maximum tension force and maximum distance when compared to the control; these were increased by the addition of the hydrocolloids at high concentrations (Figure

2A and B). This is due to the interaction between the hydrocolloids and the wheat protein which improved the gluten network strength and increased the wheat starch viscosity during gelatinization (Ribotta et al, 2005). The highest maximum tension force conditions were found with the addition of 2 g xanthan gum due to the rigid, ordered conformational structure of xanthan gum molecules as compared to the extended conformational structure of guar gum molecules. Therefore, xanthan gum could reinforce a three dimensional network structure of the starch pastes better than guar gum (Chaisawang and Suphantharika, 2006) and could inhibit the starch granules from swelling and dissolving. Hence, the addition of 2 g xanthan gum in EPIN showed the highest tensile strength. Maximum distance significantly increased with the addition of hydrocolloid (Figure 2B) because wheat starch viscosity was increased with the addition of hydrocolloid during gelatinization. However, at high concentrations, noodles extensibility was decreased because the high hydrophilicity caused them to compete with wheat protein and starch for water whilst the high molecular weight of hydrocolloids could interfere with gluten network formation.

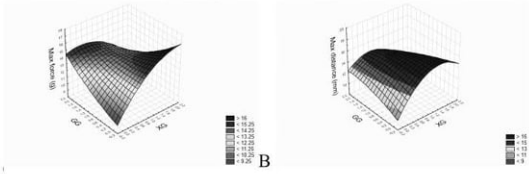

Figure 2 Response surface plots of: A. maximum tension force by the addition of GG and XG, and B. maximum distance by the addition of GG and XG of EPIN.

Microstructure of dried instant noodles with and without hydrocolloid

Scanning electron microscopy was used to investigate the structural integrity of dried enriched protein instant noodles surface and cross section with and without hydrocolloids as shown in Figures 3 and 4. Instant noodles without hydrocolloid showed a rough surface (Figure 3A) while those with hydrocolloid showed a smooth surface and continuous phase (Figure 3B, C and D) due to the binding of water-soluble starch by the hydrocolloids. The hydrophilic component of hydrocolloids interacts with proteins as a result of ionic charges and thereby improving the structure and texture of the instant noodle (Rosell et al, 2001). With the addition of 2% GG and 2% CMC, the micrographs showed a denser continuous phase (Figure 3F) which might be due to the interaction between the hydrocolloids and the protein gluten filling in the network space (Choy et al, 2012); thus, the protein-starch matrix was well formed with strong and continuous protein.

Conditions for optimum responses

The calculation of the optimum condition was performed using a multiple response optimization method. The five target conditions consist of the final moisture content not being over 12% wet basis, optimum cooking time less than 3 minutes, cooking loss less than 10%, maximum tension force between 12-16 g and maximum distance between 14-22 mm. The areas of optimum condition are shown in the white color areas (Figure 4).

Finally, the condition after adding GG 1.60 g/100 g wheat flour and CMC 1.90 g/100 g wheat flour was selected for sensory test.

Sensory characteristics of cooked enriched protein instant noodle without and with hydrocolloid

Sensory analysis gives a perspective of the potential consumer's acceptance that has an impact on future commercialization. Generally, consumers expect a firm texture, non-sticky surface, as well as good taste, color and appearance. The hedonic test on parameters such as color, odor, flavor, texture and the overall quality of cooked enriched protein instant noodle without and with hydrocolloid (GG 1.60 g/100 g wheat flour and CMC 1.90 g/100 g wheat flour) are presented in Figure 5. The results of the sensory evaluation of the product showed that color, flavor and overall acceptability of cooked enriched protein instant noodle with hydrocolloid is significantly higher than that without hydrocolloid. Overall acceptability was scored as moderately like whereas enriched protein instant noodle without hydrocolloid was scored between slightly like. Therefore, the addition of hydrocolloids could have great potential in improving the qualities of enriched protein instant noodles in terms of higher nutritional values (protein and fiber).

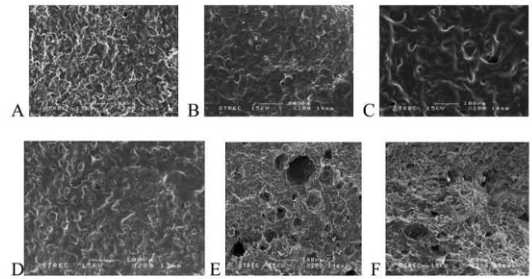

Figure 3 SEM micrographs of dried instant noodles surface: A. Without hydrocolloid, B. with 2 g of GG, C. with 2 g XG, D. with 2 g CMC, E. without hydrocolloid, and F. with 2 g GG and 2 g CMC.

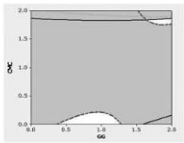

Figure 4 Optimization conditions of hydrocolloids between GG and CMC

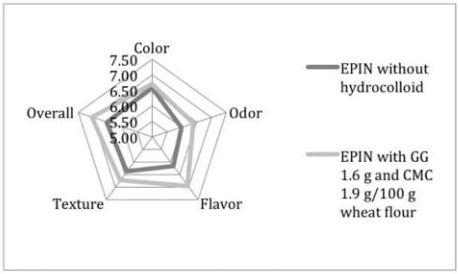

Figure 5 Sensory evaluation of EPIN without and with hydrocolloid

Conclusion

Enriched protein instant noodle (EPIN) was supplemented by chicken meat, egg yolk and seaweed and dried using a continuous microwave oven to provide nutritional benefits in the product by increasing the protein content to more than 25% than that of traditional noodles and to reduce excess oil in the noodle strands. Hydrocolloid supplementation also improved EPIN qualities in terms of its cooking, textural and microstructure properties resulting in a smooth surface and more uniformed porous structure. The product was accepted by the panellists and is deemed suitable for a fast-paced lifestyle as it offers convenience, acceptable taste, higher protein and fiber with lower oil content.

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Main author's biography

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PART 3: FOOD AND WELL-BEING

Nhat Thuan Nguyen Ho's paper may appear at first as a typical "hard science" production, as it informs the reader on the chemical analysis of a particular meal. However, by coining Khaomak as a "traditional healthy Thai dessert", Nhat Thuan endows the said dessert with alleged properties derived from popular representations, while locating it in a specified cultural area. In one sentence, Nhat Thuan posits Khaomak as anthropological object, which implicitly limits the positivism of chemical analysis, or rather suggests that an ethnographic study should be factored-in to render a more complete understanding (in the sense of Weber's *verstehen*) of what a "healthy Thai dessert" means. Aujcharaporn Pongpichaiudom acknowledges the culturally conditioned sense of taste by giving great attention to the consumers' panel of her microwaved and enriched instant noodles, thus incorporating anthropological variables into her scientific protocol.

At the-meso level of social analysis, Rachel Thomas Tharmabalan revisits the Levi-Straussian dialectics of nature and culture by rendering an anxiogenic picture of the gender-dichotomized devastating effects of modernity on some groups of Malaysian aborigines. We learn that women relying heavily on government-supplied food staples tend to experience obesity and food-related pathologies, while their men who still practice a hunting and gathering lifestyle find themselves in much better health. Hope still lies nonetheless in the corpus of knowledge on forgotten plants safeguarded by these social groups. A corpus of forgotten knowledge Tan Kean Buan is willing to tap into – together with the food culture of other ethnic groups in Malaysia – in order to construct a food education system based on *petua* or local knowledge and traditions, with the endgame being increasing acceptability of healthy diets as opposed to the dominant literature of Western-centric dietetics. All of the above converge towards the need of providing social science the role it deserves in deciphering a meal and in compensating for the limitations of "hard science" analysis, be it chemistry, dietetics or even nutrition. Therefore, Hart N. Feuer's systematic plead for social science to make sense of science, when applied to food, echoes the necessary distinction between health and well-being. That is why we tend to subscribe to Block *et al's* (2011) proposal for a paradigm shift: restructuring the "food as health" paradigm to "food as well-being" (Block et al., 2011: 5-12). This requires a shift from an emphasis on restraint and restrictions to a more positive, holistic understanding of the role of food in overall well-being. It then seems safe to sum up well-being as a complex construct that essentially concerns optimal experience and function. According to Ryan and Deci (2001), we can view the experience/functioning combination from a binary perspective. The first lens would be the hedonic approach, which focuses on happiness and defines well-being in terms of pleasure attainment as well as the avoidance of pain. On the opposite end, the eudaimonic lens (sense of fulfillment that arises from achieving one's full potential as a human being) focuses on meaning and self-realization (Ryan & Deci, 2001: 141); therefore, it defines well-being in terms of the degree to which a person is fully functioning. The hedonic/eudaimonic dualism presents the benefit of exploring the nature of well-being, its antecedents, and its stability across time and culture. Its longitudinal outreach lays solid foundation for more complex methodological developments, but also for scholars to formulate further questions to shed new light on the dialectics of food and well-being.

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PART 4: FOOD AND CONSUMERISM

INTRODUCTION

In the beginning of this millennium, the Irish (Eire) Government for Science commissioned a review of global food consumption trends and projections until 2050 to the Department of Biological Sciences of the Dublin Institute of Technology. In 2010, a paper was published by John Kearney in the Philosophical Transactions of the Royal Society B, Biological Sciences' biweekly peer-reviewed scientific journal published by the long-established Royal Society in the United Kingdom. The paper gives a picture of food consumption (availability) trends and projections to 2050, both globally and for different regions of the world, along with the drivers largely responsible for these observed consumption trend. The author states that, "throughout the world, major shifts in dietary patterns are occurring, even in the consumption of basic staples towards more diversified diets" (Kearney, 2010: 2793). Diet diversification subsequently leads to the question of food choices. One important pointer among the many definitions of consumption has been highlighted by Kosaku Yoshino (1999): "consumption does not only refer to the process of exchanging money for real objects but also to the experience of receiving meanings as well as tangible objects" (Yoshino, 1999: 3). In the same line of reasoning, Lindeman and Stark posit that four main factors such as health, weight concern, pleasure and ideological reasons might correlate with food choice motives for young and middle-aged women in Helsinki, Finland (Lindeman & Stark, 1999: 141-161). Lindeman & Stark ultimately came up with consumer profiles, namely health fosterers, gourmets, ideological eaters, health dieters and distressed dieters. According to the two authors, only the second dieter group, distressed dieters, showed low psychological well-being and symptoms of disordered eating. The results also indicated that ideological food choice motives were best predicted by vegetarianism, magical beliefs about food and health, and personal strivings for ecological welfare and for understanding the self and the world (Ibid, p. 141). This paper gives a first indsight of the psychology of food consumption for a gender-oriented market segment in a specified geographical location within the region of Scandinavia, Europe. The chapters that follow go beyond the mere field of psychology and call upon socioeconomics, rural studies, history, sociology, anthropology and marketing among other scientific disciplines to dissect food consumption issues located in Malaysia, China and Japan.

Ku Hok Bun and Yan Hairong discuss the food security crisis and the emergence of alternative developments in China. They focus notably on one commodity: soya bean. The authors establish that China is experiencing a food crisis in terms of self-sufficiency and safety as far as soya bean is concerned. Ku's own fieldwork in a Zhuang ethnic minority village led her to observe practices of alternative development, such as the growing of organic rice, which led to the registration of a successful production cooperative. For Ku and Yan, the social economy might prove to be a new route for China's sustainable development, as it tends to generate social justice and serve the needs of the people.

Akamine Jun narrates the story of Kesennuma City, a fishing town in Myagi prefecture, on the northeastern coastline of Honshu Island, Japan's main island. Kesennuma City reinvented itself after the Tsunami hit of 2011, shifting from a shark fin industry town to

a slow food town, using blue shark *meat* as sustainable development symbol to promote tourism in the area.

Tetsuya Araki reviews cold chain trends in East and Southeast Asian regions from a socioeconomic perspective, before focusing on Japan. Araki concludes by highlighting the issue of the replacement of the refrigerant HCFC (hydrochlorofluorocarbon - to be phased out globally by 2030), since there is to this day no alternative refrigerant with a higher Coefficient of Performance (COP) than the banned Freon gas refrigerants. Araki also predicts that foodways (such as eating raw fish) are one of the most important keys to consider the food cold chain development in East and Southeast Asian regions.

Kartini Aboo Talib @ Khalid explores the changing food consumption patterns of the Malay middle class in Malaysia, in the light of the constitutional religious faith: Sunni Islam. Her findings demonstrate that consumer behavior has been evolving creatively in order to consume further food diversity, while complying with *Syariah*, or Islamic law.

Tan Ai Ling and Yow Taw Onn investigate quantitatively the motives for Millennials in Malaysia to consume traditional food, from a cross-ethnic perspective. Their findings show that three main food choices motives present high correlation with consumption of traditional food. They are: neophobia – or familiarity -, perceived health factor, and ethical concerns.

Rokhshad Tavakoli and Tan Ai Ling boldly dwell into the future of food by exploring the general perception of virtual foods (or food consumption as an alternative sensory experience in immersive virtual reality) through analysing the online comments on the concept. Findings show that internet users receive virtual foods very well and would go to the extent to suggest benefits for using such technology to improve health conditions, solve hunger issue, tackle obesity and reduce spending on food products.

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FOOD SECURITY CRISIS AND ALTERNATIVE DEVELOPMENT IN CHINA

Ku Hok Bun
Yan Hairong

Abstract

Food security is a critical issue in mainland China. Recently, food security has been listed as the first major issue to be tackled at the Chinese Communist Party's Economic Work Conference, the Central Rural Work Conference as well as in the published "No. 1 Central Document" of the Chinese central government in 2014. Food security issue in China is related to food subsistence as well as food safety. Since 2006, in collaboration with a local non-governmental organization (NGO) in China, I have had the opportunity to participate in their work of rural community development. Throughout the said period, I had adopted the method of ethnography for collecting data via participant observations and in-depth interviews with villagers and local cadres in Chinese villages in Yunnan and Guangdong provinces. In this article, I am going to employ social economy as the theoretical framework to understand how market economy and industrialization of agriculture influence China's agriculture development and cause the food security crisis. I will also adopt the framework of social economy to analyse how the industrialization of agriculture affects people's livelihood and food safely both in the village and the city in the context of capitalist globalization. Based on the framework of social economy and fieldwork observation in rural China during these 10 years, I discovered that the Chinese people's self-protection movement is emerging. In facing the food safety crisis, local producers and consumers are not passively waiting for the government's policy change, but are rather actively searching for alternative ways to save themselves through a new initiative of rural-urban alliance.

Keywords: Food security, alternative development, social economy, rural-urban alliance, China

Introduction

There is an old Chinese saying that "food is the first necessity of the people, and food security comes as first!" However, today in China, food security is at stake. Food security issue in China is related to food self-sufficiency as well as food safety. Recently, food security has been listed as the first major issue to be tackled by the Chinese government. In recent years, many food scandals were also exposed by the mass media. To the local Chinese, food safety is their major concern. What happened to Chinese security? What caused this problem and how do the Chinese respond to the food security crisis?

Since 2006, in collaboration with a local non-governmental organization (NGO) in China, I have had the opportunity to participate in their work of rural community development. Throughout the period, I had adopted the method of ethnography for collecting data via participant observation and in-depth interviews with villagers and local cadres in Chinese villages in Yunnan and Guangdong provinces. In this article, I am going to employ social economy as the theoretical framework to understand how the

market economy and industrialization of agriculture influence China's agriculture development and cause the food security crisis. I will also adopt the framework of social economy to analyse how the industrialization of agriculture affects people's livelihood and food safely both in the village and in the city in the context of capitalist globalization. Based on the framework of social economy and fieldwork observation in rural China during these 10 years, I discovered that the Chinese people's self-protection movement is emerging. In facing the food safety crisis, local producers and consumers are not passively waiting for the government's policy change, but are rather actively searching for alternative ways to save themselves through a new initiative of rural-urban alliance.

Food Security Crisis in China

Recently, food security has been listed as the first major issue to be tackled in the Chinese Communist Party (CCP)'s Economic Work Conference, the Central Rural Work Conference as well as in the published "No. 1 Central Document". Analysts believe that behind the emphasis on food security there is a sharp increase in food imports, signalling the imminence of the Chinese food crisis. At the CCP Economic Work Conference which was held on Dec 10 – 13 of 2013, effectively ensuring food security was listed as one of the six major tasks. The CCP had come up with a slogan to illustrate its goals – "grain self-sufficiency, absolute security of food rations". On January 19 of 2014, Chinese authorities listed food security as the top priority and stressed the importance of improvement of the national food security system in the No. 1 Central Document, the customary first official document of the new year.

Since food is China's first necessity, self-sufficiency and adequate amounts of food are of utmost importance, with emphasis being placed on the importance of agriculture. The CCP media has declared that "China's grain output has risen for the 10th consecutive year" and that "China can achieve grain self-sufficiency". However, the real situation is not so optimistic. As director of the Crop Cultivation Department, Zeng Yande said that although grain production has risen for 10 straight years, tight food supplies will persist with the increase in grain demand, which is now at 100 million tons per year. In 2011, the State Council Development Research Center had predicted that Chinese grain imports would increase to 22.24 million tons in 2020, up by 416 million tons since 1997. China's total food imports reached over 70 million tons in 2012. According to the estimates by the research department, Finance magazine pointed out that based on the 2010 cotton, oil and grain imports, the number of China's agricultural imports is equal to the use of 700 million *mu*'s [note 1] of foreign cultivated land, or the whole of Heilongjiang province. In October 2010, a China Food Science and Technology reporter found that not only have CCP central granaries been mostly emptied, the state-owned granaries and the privately owned granaries in the Northeast are also nearly empty. In the article entitled "China's Largest Catastrophe cannot be Avoided", the father of hybrid rice, academician Yuan Longping (Yuan, 2014) said that food crisis cannot be avoided and a social crisis could erupt at any time. His article revealed that China's grain self-sufficiency rate is only 80 percent and China imports more than 80 percent of its edible oil. In 2012, the U.S. Department of Agriculture said that drought would cause a decline in the U.S. corn and soybean production. China will be heavily impacted by this because its import of these products was more than 6 million tons in 2011. UN's Food and Agriculture warned that another possible food crisis will break out. Yuan Longping

said cannibalism, starvation, and homelessness may be inevitable. It can occur anytime, anywhere (Yuan 2014).

By using soybean production as an example, we discovered that China is experiencing food crisis in terms of self-sufficiency and safety (Yan, Chen and Ku, 2016). China is the place of the domestication and emanation of soybean (Wang and Li, 2000). Until the mid-1990s, China was not only self-sufficient in soybean production, but was also a net exporter (Wang, 2013). However, in the year 2000, China surpassed Europe to become the biggest soy importer on the global market. Its imports, over 70 million tons in 2014, accounted for 57.7 percent of the global soybean trade and about 80 percent of China's soybean consumption (BBC, 2015). In 2012, China imported 44, 41, 10 and 5 percent respectively from the USA, Brazil, Argentina and other producing countries (China Soybean Industry Association [CSIA], 2014: 49). Soybean has become a key crop implicated in the changing political economic relations between China, the US and South America (Oliveira and Schneider 2014). Soybeans, not aircraft, are now the US's top export to China (Global Post, 2014). As the US was already a major producer and exporter of soybeans before 2000, China's growing imports are in tandem with South America's fast expansion in soy production since the mid-1990s. In Brazil, soybean export serves as an instrument to balance the country's booming imports from China. China thus surpassed the US to become Brazil's largest trade partner in 2009 (Oliveira, 2015: 17). Some observers in China, being aware of the dominant role played by the US-based transnational corporations in the global soy complex, perceive the situation to be that as 'South America produces soybeans, China buys soybeans, and the US sells soybeans' (Zhou, 2014; Guo, 2012).

Importing soybean is not only the issue of food self-sufficiency; it is also a question of food safety because the majority of imported soybeans are genetically modified (GM) as patented by Monsanto and several other transnational companies. The massive import of GM soybeans, in the context of China's entry into the WTO (World Trade Organization) and the growing presence of global agribusiness in China, has challenged the long-held principle of self-sufficiency and food safety. It has opened up heated debates about food security, consumer rights and inequality, scientific authority, the relationship between corporate interest and science, food as commodity or public good, the paradigm of development, socialism and capitalism.

China's food safety problem is no longer news for the public. In 2008, the Chinese mass media exposed the scandal of poisoned milk powder after sixteen infants in Gansu Province were diagnosed with kidney stones. The babies were fed infant milk formulas produced by Shijiazhuang-based Sanlu Group. The scandal involved milk and infant formula along with other food materials and components that were adulterated with melamine. China reported an estimated 300,000 victims in total. Six infants died from kidney stones and other kidney damages with an estimated 54,000 babies hospitalised. The chemical gives the appearance of higher protein content when added to milk, leading to protein deficiency in the formula. In a separate incident four years prior, watered-down milk had resulted in 13 infant deaths from malnutrition. The issue raised concerns about food safety and political corruption in China, and damaged the reputation of China's food exports. At least 11 countries stopped all imports of Chinese dairy products. Apart from poisoned milk powder, other food scandals in China (e.g. clenbuterol, lean meat powder, fake eggs) have been reported by the mass media from time to time and such a predicament has become a social fact of the Chinese society.

Social Economy and Alternative Development in China

Social economy provides us with a new framework to rethink economic development and ponder about alternatives to capitalism. The concept of 'social economy' is an option which has a clear vision 'to put the economy at the service of human beings, rather than putting human beings at the service of the economy' (Neamtan 2010: 241), and of which emphasizes social justice, democracy and collectivism. The social economy highlights links to the well-being of different economic subjects (e.g. producers, consumers, inhabitants of a local community) and to humankind (e.g. impacts on cultural or environmental commons). It lets us understand the structural factors that cause environmental disasters and their significant social consequences. It also gives local NGOs insight to search for emancipatory alternatives which can inform our practical strategies for social transformation. In contrast with the market economy, the principles of social economy should be people-centred, community-based, cooperative, democratic, as well as upholding the vision of a pluralistic society in which production is not for consumption but for servicing the needs of the people (Wright, 2006).

Unsustainable Rural Development in China

Currently, China is at the crossroads of its second revolution. The food security crisis in China is due to the unsustainable development because China's farmland has continued to diminish due to a large number of land acquisitions, ecological restorations, agricultural structural adjustments as well as natural disasters, pollution and other issues. A significant amount of farmland was requisitioned and overexploited. There are now increasingly fewer farmers; many heavily polluting enterprises move to the rural areas from big cities and discharge a large amount of industrial wastewater without treatment. The industrial waste threatens the safety of drinking water; it enters the food chain via irrigation, resulting in a greatly diminished grain production industry and a continually dropping self-sufficiency rate. The food problem will never be solved if soil and water pollution are not solved. To resolve soil and water pollution, the state environmental supervision and inspection department need to carry out inspections. However, the CCP environmental protection department has not done anything in the past decade. By the end of 2013, an investigation by the Ministry of Land and Resource showed that about 3.33 million hectares (about 5000 acres) of agricultural land are unusable due to heavy pollution.

In 2001, I began my fieldwork in a Zhuang ethnic minority village which was officially classified by the Chinese government as a 'poor' village because the villagers were unable to support themselves in terms of meeting basic needs for food and clothing. It was common to see many households in the village suffering from shortage of food between four and six months every year. We also found that many villagers, especially those living in mountainous areas where the soil is poor, had to pay an exorbitant amount of interest on the money they had borrowed to buy food. Many children in the village were also denied educational opportunities because they could not afford to pay the fees (Ku, 2011; Ku & Ip, 2011).

The mainstream agriculture development in the village is unsustainable in three aspects. Economically, when farmers shift to produce commodity crops, they rely heavily on the market to get high yielding seeds, chemical fertilizers and pesticides that would increase their production cost, especially when the market price of these production inputs

increase every year. The monopoly of big capital, fluctuation of market price, and exploitation by the middle man also cause the farmers' livelihood to become unsustainable – high production cost vs low market price of food crops. On the environmental aspect, heavy use of chemical fertilizers, pesticides, weeding liquids, and even genetically modified seeds had caused water and soil pollution which in return threaten food safety and people's health. Mass mono production also affects biodiversity. On the cultural aspect, farmers have lost their traditional skills and confidence in the midst of agricultural modernization. In villages, the most drastic change, however, came from the local government's 'green revolution' initiatives. Driven by good intention and conceptualized as a strategy to assist local farmers to generate more income and reduce poverty, the local government had been strongly encouraging the villagers to switch from growing rice to growing ginger because ginger could reach a much higher price in the market. As a consequence, virgin forests were cleared for producing ginger, causing much ecological damage. Worse still, the ginger market collapsed in the following year as there was an oversupply nationally. Prices thus dropped dramatically to a level where the farmers could not even recoup their production costs, let alone generate sufficient income to pay for food and basic daily expenses. In short, they were let down by the promises of the new market economy – they were made to feel that their traditional values and life skills were irrelevant, and when they no longer feel confident in mastering their livelihoods in agricultural production, they also lost their self-esteem and identity (Ku, 2011; Ku & Ip, 2011).

Alternative Practice of Development

The predicament faced by the villagers first came to our attention in 2002 when we were working on some cultural preservation projects there. However, it was not until 2006, inspired by the idea of social economy, that we began a cross-disciplinary (e.g. anthropologist, designer, social work, agricultural specialist, and natural scientist) participatory action research. The project had six essential objectives namely: to search for ways of alternative development and reclaim food sovereignty; to promote organic farming & green consumption; to protect the peasants, traditional agriculture and rural environment; to promote Community Supporting Agriculture (CSA); to increase producers' income via equal exchange and fair trade; and to promote peasant and consumer cooperation for resisting the capital monopoly and exploitation.

In order to achieve the said objectives in the rural areas, the first thing we needed to do was to foster community participation. We organized village group meetings to let them understand the importance and value (both economic and cultural values) of organic farming and traditional agricultural skills. After many years of planting hybrid rice with chemical fertilizers and pesticides, the villagers no longer believe in the feasibility of planting traditional rice. As the transformation of the villagers' consciousness was critical for our project, we invited an agricultural scientist to give trainings to the villagers and to convince them to do the experiments. In the beginning, only three households were willing to try. Because they had already lost their traditional seeds, we went to remote mountain villages to search for traditional rice seeds. Finally, twelve kinds of old seeds were found. In 2007, these three households used one *mu* of farmland to experiment with organic rice planting. They adopted the traditional way of farming including seedling, irrigating and ploughing the field as well as harvesting. The villagers replaced the chemical fertilizers and pesticides with farmyard manure and natural pesticides. The young villagers interviewed old famers and learned the local knowledge of preventing

and controlling rice pests. They produced natural pesticides using herbal medicine and other natural materials. They also tried different ecological ways of production, like raising ducks in the paddy fields because the ducks could help in killing pests and weeds, and their dung became the manure for the paddy fields.

After several years of returning to organic farming, we found that the soil fertility level was greatly influenced by the long-term local addition of farmyard manure. The evidence was that the four leaves grass was growing in the fields again. The old villagers told us that only a fertile field would grow four leaves grass, which disappeared after the heavy use of chemical fertilizers and pesticides. The reappearance of four leaves grass means that the land has become more fertile after practicing organic farming.

To help the producers promote their organic rice with fair price, the research team went to the city to engage with consumers. In collaboration with a local university, we had the chance to meet members of a property management company and house-owner committee in a middle class housing estate. We invited natural scientists from a local NGO to give a public health talk on the topic of harm caused by food pesticide residues. As Chinese consumers paid more and more attention to food safety, these talks raised their consciousness about green consumption. After the rice was harvested, the next important step was to promote the idea of fair trade and connect the rural village and urban community for the purpose of rebuilding cooperative relationship between producers and consumers. In order to promote mutual understanding and build fair trade relationship, we organized exchange meetings between the urban consumers and the villagers. The urban residents came to taste the organic rice and set up the price together with the farmers. Following the principle of fair trade, the price needed to be fair to the producers. In the beginning when the consumers found out that the price was triple higher than the market price of non-organic rice, they showed their disagreement. It was a normal reaction for consumers because they had never participated in the price setting process. They had no idea about the unfair practice of the mainstream market. We invited a village representative who explained to the consumers about the labour process of rice production and how the actual labour input was included in the price calculation. This was a way of promoting mutual understanding between the producer and the consumer. After listening to the village representative's explanation, some older urban residents expressed that the price was fair because they also had rural experience when they were young during Mao's period. They were familiar with the practice of planting rice. They supported the price and convinced the other urban consumers of the same. It was really a transparent and democratic practice of social economy.

The first year experiment was very successful and all the organic rice was sold out within one month. This highly motivated the other village households to participate in organic farming. In July 2009, the production cooperative was formally registered. There were 14 households in the cooperative. In 2014, the cooperative expanded to 50 households and the total area of production also expanded to 150 *mu*.

To sustain the consumer network, we invited urban residents to participate in harvest festivals organized by the cooperative and to visit the land where the rice they consume is produced. The urban residents' purchase not only supported the agricultural development, but also benefited the food safety initiative. They became friends of the villagers and inadvertently became the quality controllers of rice production as they frequently visit the village.

In short, the above practice goes beyond the logic of capitalism, and emphasizes on social justice, democracy and collectivism. It encourages local villagers to return to organic farming, produce arts and crafts, use local resources for urban green consumption while simultaneously helping locals in generating additional income, preserving and revitalizing their cultural pride and identity, protecting soil and seed, fostering community participation, strengthening community life and cohesion, and ultimately, buffering the corrosive forces of globalization. We conclude that fair trade is important for this initiative because it changes the unfair practice of the mainstream market economy. It rebuilds the cooperative relationship between producers and consumers. Through this rural-urban alliance, urban consumers are able to support organic farming and enhance the income of farmers; in return, the urban consumers could benefit from the consumption of safe food.

Conclusion

In our view, China's economic development must be returned to the society and gradually shifted from a market-driven development to a people-centered and environmentally friendly development. Instead of freely allowing capital to intrude into rural society, commodifying farmlands and peasants that were disposed from their means of production and livelihood, a pluralistic green economic model, which takes into account the realities of rural areas and builds upon the foundations of rural society, must be promoted and implemented in the process of rural development. In contrast with the market economy, local NGOs promote social economy which is people-centred, community-based, cooperative, and democratic, as well as defined by harmony between people and the environment, and is a societal system in which production is not for consumption but for servicing the needs of the people.

The problem of China's market-driven development lies in the inevitable domination by capital, commodification of people and land, and the destruction of society and the environment. We advocate another model of alternative development, which embeds the economy within social relations. It is pluralistic, bottom-up, democratic, non-monopolistic, and truly prioritizes the developmental needs of communities and individuals. Cooperatives (producer and consumer cooperatives), social enterprises, fair trade, community economy, and collective economy are all concrete examples of social economy practice because it intervenes to protect the environment and enhance people's well-being by integrating people and their socio-cultural, economic and physical environments within an egalitarian framework that addresses the prevailing structural inequalities and unequal distribution of power and resources.

After 30 years of planned economy and another 30 years of market economy, China is facing the huge pressure of developing both economically and socially. Social economy could be the new route for China's sustainable development which will change the pathway of economic development that causes the inequality and affecting people's livelihood.

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Endnotes

1. Sannong problem can be literally translated as 'three rural problems' – peasants, villages and agriculture.

2. 1 mu is equal to 0.1647 acre.

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PROMOTING SUSTAINABLE SHARK FOODWAYS FOR GLOBAL CAMPAIGNS AGAINST SHARK FIN CONSUMPTION

Akamine Jun

Abstract

Japan is one of the major shark fishing countries in the world. It has been exporting shark fins for the last three centuries to China and shark fins are still considered as one of the most important exporting commodities. The Japanese people consume shark meat in various ways i.e. in the simple form of sashimi, cooked with soy sauce (*nimono*), *nikogori* (jellied broth), fish cake etc. Sharks are often caught as the by-catch in the long lines for catching tuna in Japan. About 80 to 90 percent of total shark catch in Japan end up at the Kesennuma Fishing Port (KFP) in north-eastern Japan where a devastating tsunami occurred in March 11, 2011. Before the tsunami tragedy, Kesennuma was highly regarded for its high quality shark fin products and for being the key industry in Kesennuma City. Kesennuma currently faces two difficulties: the threat of tsunamis and the global campaign against shark fin consumption. During the reconstruction process, Kesennuma City was aiming to be a "shark town" and not a "shark fin town". Fisheries stakeholders aim at transparent and "sustainable" shark fisheries and they applied for the MSC (Marine Stewardship Council) eco-label in April 2014. This paper will first introduce the history of shark foodways in Japan and Asia followed by a description of the current global anti-shark campaign. The third part of the presentation will review the development of shark fisheries in Kesennuma in relation to the modernization of the fishing industry in Japan in the late 19th century. The next part of the paper will describe how the people in Kesennuma deal with the difficulties resulting from the tsunami threat and the global campaign against shark fin. Finally, the paper will analyze the "super shark" phenomena in comparison to the 1970s "super whale" phenomena and promote sustainable and wise uses of shark and marine resources in Japan and Asia.

Keywords: "super shark" myth, marine biodiversity conservation, Asian food heritage, food security

Introduction

Shark fin dish is a compulsory item in Chinese feasts such as during weddings especially in southern China since the last three hundred years. The process of preparing shark fin soup can be rigorous i.e. from catching sharks, drying, skinning, and reconstituting fins, to cooking them with high quality clear soup. Each process requires sophisticated professional skills, knowledge, and experience. Thus, shark fin heritage consists of a system and the social changes in the aspects of its production and consumption are closely tied to each other. This mutually dependent relationship has a long history even beyond the national boundaries of China. In particular, the varieties of Chinese foodways cannot be studied in isolation from the Asia-wide network of the Chinese population. For example, Japan had exported shark fin to Qing China since the end of the 17th century. Since then, dried maritime products such as shark fin, abalone and sea cucumber have become important export items for Japan. The Meiji Government that modernized the nation

encouraged the production and exportation of such marine products. In order to investigate the resource aspect of the shark fin heritage system, this study will focus on the social changes in the production aspect of shark fins in Japan.

The shark fin industry in Japan currently faces three interrelated difficulties. Firstly, Japan has become a saturated market for fish consumption due to depopulation. Unlike abalone and sea cucumber that the Japanese favor, shark fin had been developed for export purposes: the Japanese did not consume shark fin until recently in upscale Chinese restaurants in big cities. Shark meat in general has been an important ingredient for traditional fish cakes but hardly a main dish itself except in some remote communities. Secondly, the shark fin industry faces a global campaign against shark fin consumption. Notable five star hotels have recently stopped serving shark fin soup, while international airlines and shipping companies have stopped carrying shark fins, demonstrating the increasing popularity of campaigns against shark fin trade and consumption (Clarke et al., 2007; Edwards, 2007; Passantino, 2014). In some states in the US, the possession of shark fin is unlawful (Tatum 2012; Kelsey and Cameron, 2013). Thirdly, Kesennuma City, 480 kilometers of Tokyo, was severely affected by the March 2011 tsunami, which had destroyed the factories in its major shark fin producing port. The Kesennuma Fishing Port (KFP) is both nation-wide and internationally famous for shark landings. Coincidentally enough, UK's *The Guardian* had published a report entitled "Shark Fishing in Japan, A Messy, Blood-spattered Business" on February 11, 2011, a month before the tsunami occurred (McCurry, 2011). These three interconnected difficulties had impeded the full recovery of the shark industry in Japan. After five years of intensive recovery process, the volume of shark landing has only peaked to two thirds.

The "Super Shark" and the Anti-Shark Fin Campaigns

Environmentalists generally argue that "sharks are susceptible to over-fishing as they tend to be long-lived, are slow growing, and have late sexual maturity and low reproduction rates, making it difficult for depleted stocks to be rebuilt" (Techera, 2012: 600), without mentioning any shark species. Such discourse is reminiscent of the term "super-whale myth" coined by the Norwegian anthropologist Arne Kalland. He argued that environmental activists had created a myth about whales by speaking solely about it: the whale is the world's largest living animal, with a large brain, social and friendly, sings and looks after its young etc. However, such a *single* whale that possesses all the characteristics mentioned above never existed; it is a mystical creation, a super-whale with human attributes (Kalland, 1993). Similarly, the debate around shark conservation should be species specific. Thus, one question arises: what kinds of sharks are in danger of extinction? There are about 500 species of sharks in the world. Some may be endangered, but not all. For example, the International Union for the Conservation of Nature and Natural Resources (IUCN), one of the largest environmental NGOs in the world, had reviewed 523 shark species at risk of extinction in 2014. Among them, 239 species (or 45.7 percent of the total reviewed) are categorized as Data Deficient (DD). Excluding those DD species, according to the IUCN Red Lists (ver. 3.1), 73 species of sharks (25 percent out of the total of 284 species) are under the *threatened* categories: 10 Critically Endangered (CR), 15 Endangered (EN), and 48 Vulnerable (VU). Although the results of the review may vary as it progresses, one should bear in mind that not all sharks are endangered at this point.

Out of all the shark landings in Japan, the blue shark has accounted for 66.7 percent of the total landings over the last 12 years. Salmon sharks and Shortfin mako sharks (*Isurus oxyrinchus*) hold the second and third places respectively, accounting for an average of 21.8 percent and 6.0 percent of all shark landings in Japanese fishing ports. According to the Kesennuma Fisheries Cooperative Association (KFCA), almost 80 to 90 percent of the total volume of Japanese shark fishing vessels catch land at the Kesennuma Fishing Port (KFP). Among the sharks that landed at the KFP in 2012, the blue shark made up 63.4 percent of the total catch of 8,764 metric tons, while the salmon sharks accounted for 28.4 percent, making over 90 percent of the total landings in the KFP. The IUCN Red List reviewed blue sharks as Near Threatened (NT) and salmon sharks as Least Concerned (LC) in 2014. Since the IUCN does not consider NT or LC as *threatened*, the sustainability of blue and salmon sharks is currently not problematic. Contrary to the "super-shark" discourse, the blue shark is one of the most productive pelagic sharks [Cortés et al. 2010]. This scientific information is a basic principle for Kesennuma's city planning. To enforce more rigid resource management, the Kesennuma Pelagic Fisheries Cooperative Association applied for the International Marine Stewardship Council (MSC) *eco-labeling* certification for sustainable shark fisheries in March 2014. The second review is currently under process after the preliminary audit.

From Shark Fin Town to a Slow Food Town

Kesennuma City, whose population is about 67,000, is located along a deeply indented rias coastline facing the Pacific Ocean. Behind its coastline are beautiful mountains. The world's famous Sanriku Fishing Grounds, rich in fish resources, is just a few miles away, where cold and warm currents interface. Blessed with a good environment, both inshore and off-shore, pelagic fishing developed in Kesennuma City. For example, the KFP is well-known nation-wide for the landing of tuna, skipjack, shark, and Pacific saury (*Cololabis saira*). Wild abalone and sea urchins are harvested along the complex rias coastline in and around the coastal city. High quality farmed oysters, scallop, and *wakame* seaweeds (*Undaria pinnatifida*) from Kesennuma City are also popular all over Japan. However, as for tuna, there are several competing fishing ports. It has the same kind of circumstance as skipjack, Pacific saury, abalone, sea urchin, and oyster. The KFP is by far the largest shark landing fishing port and thus shark fin has become Kesennuma's specialty, advertised in magazines, TV programs, and websites featuring travel and local gourmet.

Shark fisheries began in Kesennuma City around the 1900s when fishing vessels started to expand with motorization through Japanese government support. Those fishing vessels seasonally searched for offshore skipjacks in the south, as well as salmons and trouts in the north during summer. Shark fisheries began as an off-season fishery for skipjack or salmon and trout. Around the same period of time, an industry processing shark meat into *chikuwa*, a traditional tube-shaped fish paste cake, emerged in Kesennuma. Shark meat has long been an important ingredient for making *surimi* (traditional fish paste) products such as *hampen* (pounded fish cake) and *kamaboko* (boiled fish paste) to add a smooth and elastic texture to dishes. Shark fisheries and the *chikuwa* industry in Kesennuma City grew in the 1910s with the help of technical innovation in both the fisheries and fish paste processing industry. After World War II, long-lining tuna fishing emerged in Kesennuma City. In the beginning, swordfishes and sharks were only the by-products of such tuna fishing. However, the volume of tuna caught declined due to resource problems and the Japanese Fisheries Agency reduced the number of tuna fishing vessels as a policy.

Eventually, swordfishes and sharks became relatively major target species at the KFP. These changes happened during the 1980s. Coincidentally, it was a time when China propelled its economic reform and its shark fin markets had just started to expand. China's demand for shark fin served as a tail wind. Processed shark fins were not only exported to Hong Kong and China, but also consumed in top-class Chinese restaurants in large cities in Japan.

Kesennuma City is unique in its city-planning based on food and foodways. In order to conserve local foodways and to invent or reinvent local dishes for boosting tourism and the food industry, the city officially made a Slow Food Declaration (SFD) in March 2003 and became the first municipality in Japan to have done so. Thanks to its beautiful natural environment, Kesennuma is famous not only for its wonderful seafood, but also for its land produce such as a *matsutake* mushroom and other kinds of local mushrooms and edible plants. There are many local home cooking recipes that use these local food ingredients. The City's SFD aims to conserve such local foodways as well as the natural environment, and to develop human resources that can appreciate the spirit of Kesennuma's SFD. The objectives of SFD consist of the following five: 1) conserving the natural environment that produces rich food to be passed on to the next generation; 2) safeguarding traditional food including foodstuff and cooking techniques; 3) respecting people who produce safe and high quality foodstuff; 4) conveying the joys of food and the importance of sense of taste and spiritual wealth; and 5) promoting mutual understanding and peace in the world.

The people in Kesennuma City made various efforts to achieve the SFD's objectives. School lunch is one way of teaching the importance of local foodways. For example, a grade school had invited Mikuni Kiyomi, a famous Japanese chef of French cuisine, to deliver a lecture and cooking lessons in July 2003. In April 2004, owners of *ramen* (soup noodle) shops in Kesennuma City developed *Kesennuma Ramen* as a local ramen, of which main ingredients consist of the fins of blue shark and flavored oil made from Pacific saury. It even uses locally-made salt. In June 2004, a delegation from Kesennuma City took part in the first Slow Fish event in Genoa, Italy. They delivered a presentation on the current situation of the fishing industry and local seafood culture in Kesennuma City, and exhibited 13 kinds of processed foods made from shark, skipjack, and Pacific saury. According to Sugawara Akihiko, the representative of the delegation, one of their objectives in joining the Slow Fish event was to introduce ordinary everyday fish dishes, aside from the world-known *sushi* and *sashimi* such as *nitsuke* (boiled fish with soy sauce and sugar), *tsukudani* (preserved fish boiled in soy sauce), and fish cakes and fish balls. They also exhibited the whole skin of the blue shark. In March 2006, caterers and lunch box (*bento*) stores in Kesennuma City developed a special lunch box using locally produced land-based and marine foodstuffs such as cooked tuna with *kombu* kelp by soy sauce, shark fin, shark steak, and steamed chicken with *fuki-miso* (seasoned mixture paste of *miso* with chopped edible flower buds of the *fuki Petasites japonicus* plant), etc. Furthermore, in February 2007, Kesennuma City held a two-day National Slow Food Festival, a first of its kind in Japan, authorized by the International Slow Food Association. It was held at an old abolished primary school in a remote mountainous village with more than 1,200 visitors in attendance. The second successive event, the Kesennuma Slow Food Town and Life Event Autumn 2010, took place in November 2010. It attracted over 20,000 visitors in the span of two days. For these activities, Kesennuma City was awarded the Slow City (*Cittaslow*) in October 2012 for its restoration efforts from the tsunami.

These food-related movements in Kesennuma City have a history. As early as the 1980s, the city had already been interested in fisheries and fish-based foodways. For instance, in September 1986, Kesennuma City declared itself as a *gyoshoku kenko tosi*, a fish-eating healthy city. Since then, Kesennuma's city-planning has been based on developing the local fisheries industry and fish-based foodways. There were national and international socio-economic and political affairs behind this local movement. After World War II, the Japanese changed their eating habits in various aspects. One prominent example is the consumption of more meat than fish. In 1976, meat outstripped fish consumption in the intake of animal protein per capita for the first time in Japanese history. Those concerned with the fishing industry correspondingly had to promote fish consumption, saying fish has less fat than meat and is a healthy food. Furthermore, in 1977, the US and the then Soviet Union declared their 200 nautical mile-exclusive economic zones. As a result, pelagic fisheries in Kesennuma City faced hardship because they lost fishery grounds in the north Pacific. To make matters worse, it was around the same time that tuna catch declined. In 1983, the Kesennuma City government and fishery industry stakeholders organized a "Civic Forum" to address economic adversity. The Civic Forum discussed how to develop and reconstruct their city's fishing industry and organized a National Fisheries Symposium in September 1985 inviting key political persons in fisheries from all over Japan. Even after the Civic Forum broke up following the symposium's successful closing, the participants of the Civic Forum unofficially got together to further discuss problems in fisheries. Out of these grassroots movements, the "fish-eating healthy city" declaration was conceived. These movements continued and propelled the Slow Food Declaration in 2003 and continued even during restoration activities after the 2011 tsunami.

Promoting Shark Meat Dishes

Even before the tsunami in 2011, Kesennuma City was already searching for ways to make use of shark as its symbol. In May 1997, the city opened the Rias Shark Museum where visitors could learn about the ecology of sharks and the shark industry, and touch small sharks in a pool. More than one million tourists visited the museum in 2010 alone. There are two main reasons why fisheries stakeholders in Kesennuma City became interested in making use of shark meat in the early 2000s. First, the conservation of shark resources had altered the Japanese people's shark consumption. Shark is a by-catch of long-line tuna fisheries. Compared to tuna, shark meat has low commercial value so shark carcasses are often discarded after the removal of the fins, known as notorious shark-finning. However, in response to global shark conservation concerns, tuna-related Regional Fisheries Management Organizations (RFMOs) such as the Indian Ocean Tuna Commission (IOTC), the International Commission for the Conservation of Atlantic Tunas (ICCAT) and the Inter-American Tropical Tuna Commission (IATTC) had banned shark-finning in 2005, while the Japanese Fisheries Agency banned shark-finning in 2008. The supply of shark meat has risen since 2005 and has exceeded the traditional shark meat market for fish paste products.

Secondly, the restructuring of the shark industry as a result of world shark fin market expansion occurred. In 2006, the mean price of exporting shark fins from Japan went up to 5,800 JPY (about 50 USD) per kilogram, which was the most expensive in the history of the industry in Japan. This price hike was partly because both the Chinese and Hong Kong markets had overheated. Another reason was, paradoxically enough, the shortage of shark fins for export. As mentioned, the tuna fishing long-liners by-catch most sharks.

The volume of shark fin exports had declined in the last 25 years due to a significant reduction in the number of tuna fishing boats with the aim of conserving tuna resources. According to a top shark fin processor, Chuka Takahashi Inc in Kesennuma City, in the 2000s, the shark fin market overheated and the demands for shark fin became strong. Competition for shark fins among producers within the city had intensified, and Takahashi's company had to start making use of shark meat to increase profit. His company developed shark nuggets and shark *tatsuta age*, or shark meat that is flavored with soy sauce and cooking *sake*, coated with cooking starch and deep fried [The Asahi Shimbun, Oct. 29, 2006, p.35].

Reconstruction of a New Shark Town

Shark stakeholders in Kesennuma City have made various attempts to promote shark meat dishes. In January 2010, with the help of the Kesennuma Chamber of Commerce and Industry (KCCI), the city government served school lunches made of locally produced ingredients such as shark fin, shark meat, vegetables, soy sauce, salt, honey, and yogurt to high school students and their parents. They aimed to inform the public of the varieties of fine ingredients, and to encourage appreciation for their living environment. This event further attracted public attention so much that the following month, the KCCI sold food to the public. In fact, all Seven-Eleven convenient stores in Miyagi Prefecture sold shark meatball lunch boxes in January 2011 [The Asahi Shimbun, Jan. 25, 2011, p. 29]. The Kesennuma Sushi Association which consists of 19 members had developed a shark fin dish called *Fukahire Don* or 'Shark Fin Bowl' in July 2010. The Japanese term *don* or *donburi* means bowl as in *gyu-don* (a bowl of rice topped with beef dish), which is common among the Japanese, as well as *ten-don* (tempura donburi, a bowl of rice topped with deep-fried fish and vegetables) and *katsu-don* (a bowl of rice with a breaded and deep-fried pork cutlet on top). In *fukahire-don*, shark fin is cooked in a way that preserves its original shape and placed on top of a bowl of rice. Unlike the Chinese styled "Shark Fin Kesennuma Ramen", the shark fin used in shark fin bowl is cooked with Japanese traditional *dashi*, a kind of broth made of dried skipjack with sesame flavoring. Developed by the sushi association, the shark fin bowl is understood to have a "Japanese" taste although shark fin is famously identified as a Chinese luxurious food ingredient. It costs as low as JPY3,600 to 4,200, or about US$32 to 38 per bowl depending on the size of the shark fin. Despite its high price, gourmets kept visiting Kesennuma City and the shark fin bowl sold 2,000 orders during the first three days of its sale in July 2010 [The Asahi Shimbun, Jul. 14, 2010, p. 35].

The shark fin bowl was brought out again in July 2014 to mark the reopening of the Rias Shark Museum. This was very symbolic for the reconstruction of Kesennuma City, three years after the tsunami. The Rias Shark Museum first opened in 1997 with seafood restaurants and souvenir shops. More than a million tourists had visited it annually before the tsunami. The new shark fin bowl is symbolically served with blue shark meatball (Ida, 2014). According to Shimizu Naoki, president of the Kesennuma Sushi Association, they wanted to make use of blue shark meat. While blue shark meat contains lots of water and therefore cannot be used as an ingredient for sushi, blue shark meatball tastes good and goes well with soup. The association aims to increase blue shark meat consumption to empower Kesennuma's fishing industry.

Discussion and Conclusion

Sharks make for interesting dishes. Japan has a long history of exporting shark fins, but the Japanese people did not eat shark fins until recently. Although the urban and well-off section of the society enjoys shark fin dishes, they were never popular among the ordinary Japanese. Shark meat, on the other hand, has been consumed domestically with many kinds of traditional fish cakes. For example, *hampen*, a pounded fish cake, is a-must item in *oden,* a kind of dish stewed in thin soy soup and served hot in winter. One can put any ingredients into *oden* and there are many local or regional varieties of *oden* in Japan. One may know that *hampen* is made of fish, but not any kind of fish. Its good texture comes from shark meat. In this sense, shark meat in *hampen* is *invisible* for urban consumers. If there are no shark fisheries in Japan, there is no good traditional *hampen*. When Kesennuma City was hit by the tsunami in 2011, unaffected factories in other regions produced *hampen*-like fish cakes without using shark meat, but they were not as good as the original.

Aside from fish paste cake demands, there are only a few places in Japan where people prefer shark meat. They cook shark meat with soy sauce (*nitsuke*) or deep-fried. These shark foodways only occur in remote in-land mountainous areas. When there were no cold chains and transport system available, shark meat was the only fresh meat available in those areas. It lasts long enough although it smells of ammonia. As long as it has that ammonia odor, it can be consumed. Even today, those remote areas still conserve their shark meat eating habit. For ordinary or majority Japanese urban consumers, shark meat is an *invisible* food ingredient contained in various kinds of fish cakes. This is the reason why shark stakeholders in Kesennuma City had a hard time promoting shark meat and shark meat dishes. Naturally, the city produces a lot of wonderful seafood, and the local people never cared about shark meat except for salmon shark's heart. Kesennuma City ironically has to promote shark meat dishes first within the city before the other regions outside. Thus, Kesennuma City attaches great importance on education including knowledge on preparing healthy school lunches.

Japanese consumers feel relieved when they can eat local "fresh" ingredients which they can hardly get in their daily urban lives. That is how they appreciate food tourism in Kesennuma, a city which is blessed with everything from the land down to the sea. After the 2011 tsunami, Japanese consumers continued buying products made in those affected areas. Consumption and production are tied closely together in the age of globalization. Both consumers and producers can be connected in understanding the history and culture of a producing site. Eating shark at Kesennuma city indicates that the consumers will continue to support the city's reconstruction. Apart from consuming their products, it is high time for urban citizens to visit Kesennuma City to learn about its history and culture as well as the history of its shark fisheries. One should visit the Rias Shark Museum to learn more about the ecology of sharks and shark fisheries as well as to enjoy the shark dishes there.

Although it is not easy to cope with animal welfare ethics, shark stakeholders in Kesennuma City try to be transparent and place a high priority on the sustainability of shark resources. They make a living by consuming sharks so they try to make full use of almost every part of the shark including its fins, meat, bones, and skin, which is one way of persuading animal protection ethics. The Slow Food Movement in Kesennuma City re-evaluates the wonderful natural environment and their cultural heritage. Efforts toward

obtaining MSC's eco-labelling for blue shark fisheries should be placed in this rich socio-cultural heritage context. Kesennuma City aims to hold the third Slow Food Festival in 2021 in commemoration of the 10th anniversary of the tsunami. This event will be open not only for the local people, but also for tourists who would like to commit to Kesennuma's reconstruction.

Note:

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FOOD COLD CHAIN IN JAPAN, CHINA and SOUTHEAST ASIA

Tetsuya Araki

Abstract

This paper reviews cold chain trends in Japan, China and the Southeast Asian regions from the socioeconomic perspective. In Japan, cold chain infrastructure was firstly introduced for transporting fresh fish by train in 1926. After the Tokyo Olympic Games in 1964, the Resources Council of Science and Technology Agency in Japan officially announced 'The Recommendation to Modernize the Comprehensive Food Supply Chain System to Contribute to the Systematic Development of Diet Style (Admonishment of Cold Chain)' in January 1965. The admonishment was aimed at improving the dietary lifestyle of the people of Japan by increasing the low temperature distribution of perishable foods and dairy products and by recommending the reduction of salt intake for the people. In other words, health improvement of the people was the mail goal of the policy relevant to cold chain in Japan. Another historical background of the cold chain development in Japan was the strong links between affiliated companies and government organizations. Meanwhile, China had launched a five-year development plan of cold chain logistics for agricultural products to reduce food losses due to the lack of cold chain infrastructure in 2010. The results of a correlation analysis between the consumption of frozen foods and socioeconomic indicators in China suggested that the GDP per capita was highly correlated with the consumption of frozen foods for domestic use in China. In addition, several socioeconomic indicators were compared between China, India, Indonesia, Japan, Malaysia, Philippine, Thailand, and Vietnam in terms of the possibility of disseminating cold chain in these nations; GDP per capita was considered to be an indicator of the market scales after disseminating cold chain. Future prospects and issues in further disseminating cold chain in the East and Southeast Asian countries are also discussed.

Keywords: Cold chain, policy goal, Japan, China, Southeast Asia

Introduction

The development process of food cold chain greatly affects subsequent foodways, and is greatly affected by foodways too. Foodways are the patterns that establish what, how, why and under what circumstances we eat [1]. Foodways are a series of moments in which food is first produced in close interaction with the natural world (farming, fishing, hunting), processed to varying degrees, and then distributed to and procured by individuals, households, or organizations which then prepare, serve, and/or consume it [2]. For example, foodways of eating raw fish such as *sushi* and *sashimi* in Japan were greatly influenced by the Admonishment of Cold Chain in 1965, and the foodways were reliant on the improvement of cold chain since the beginning of the 20th century.

On the other hand, China has launched a five-year development plan of cold chain logistics for agricultural products to reduce food losses due to the insufficiency of cold chain infrastructure since 2010. According to the China Logistics Yearbook 2011, the transportation losses of foods has reached 9.25 billion USD and increased by 1.2 billion USD in a year due to insufficient cold chain infrastructure. Some estimates indicate that

there might be a loss in terms of nutritional value base for 200 million people and 100 million tons annually. The losses of vegetables and fruits are 130 million tons and 12 million tons, respectively.

This paper reviews cold chain trends in the East and Southeast Asian regions from the socioeconomic perspective. Following this introduction, Section 2 reviews the historical background of cold chain development in Japan. Section 3 focuses on cold chain development and frozen foods in China. Section 4 describes cold chain trends in the East and Southeast Asian regions. Section 5 presents the socioeconomic indicators of China, India, Indonesia, Japan, Malaysia, Philippine, Thailand, and Vietnam in terms of the possibility of disseminating cold chain in these countries. Section 6 discusses future prospects and issues in further disseminating cold chain in the East and Southeast Asian countries. Section 7 concludes the whole discussion.

Historical background of cold chain development in Japan

Fisheries Industry as Originator of Cold Chain

The fisheries industry was the originator of cold chain in Japan, and had introduced the latest refrigeration technologies from abroad to realize low temperature distribution of fishery products in the first half of the 20th century [3]. Cold chain infrastructure was firstly introduced for transporting fresh fish by train in 1926 [4]. Fresh fish filled with ice in production areas was transported to the fish market by insulated railroad cars and the temperature was kept low using crushed ice [5]. Subsequently, several Japanese manufacturing firms succeeded in developing refrigerators with homegrown technologies in the 1950s, while several fishery processing manufacturers produced frozen foods on a small scale before 1965.

However, these frozen foods failed to gain popularity in the 1950s and the first half of the 1960s due to insufficient cold chain infrastructure, which caused the frozen foods to have lower quality than fresh foods. At the same time, the frozen food industry especially the frozen fish industry in Japan was in dire need of government support for developing cold chain.

Admonishment of Cold Chain and Subsequent Rapid Growth of the Frozen Food Industry

The Tokyo Olympic Games in 1964 was one of the important milestones for cold chain development in Japan. In order to serve a great deal of food to numerous visitors, frozen foods played a significant role during the event. Subsequently, just after the Tokyo Olympic Games, the Resources Council of Science and Technology Agency in Japan officially announced 'The Recommendation to Modernize the Comprehensive Food Supply Chain System to Contribute to the Systematic Development of Diet Style (Admonishment of Cold Chain)' on January 1965. The admonishment was aimed at improving the dietary lifestyle of the people of Japan by increasing the low temperature distribution of perishable foods and dairy products and by recommending the reduction of salt intake for the people. In other words, the health improvement of the people was the main goal of the policy relevant to cold chain in Japan, although the frozen food industry had intended to expand itself.

As seen in the available statistics [6] [7], the frozen food industry in Japan rapidly expanded after the Admonishment of Cold Chain. A typical successful example was the rapid growth of the frozen tuna market due to the development of refrigeration technology at lower than -60℃. In addition, the domestic market of cooked frozen foods continuously expanded until the 1990s, which considerably depended on the imports of frozen foods mainly from China and Thailand.

Strong Links between Government Organizations and Affiliated Frozen Food Companies

Another historical background of the cold chain development in Japan was the strong links between government organizations and affiliated frozen food companies. Originally, the Frozen Food Promotion Association was a small organization founded by 4 frozen food manufacturing companies in 1959. At that time, the frozen fish industry in Japan relied on government support for developing cold chain. Subsequently, based on the advice of a government official, the association called two government officers from the Fisheries Agency who later extended financial support to the association. The association was later reorganized as the Frozen Fish Association in 1964 and again as the Japan Frozen Food Association in 1969. It has been under the jurisdiction of the Ministry of Agriculture, Forestry and Fisheries of Japan since 1978 [5].

Cold chain trends in China

Present Conditions of Cold Chain Development in China

Just as Japan held the Tokyo Olympic Games in 1964 and the Osaka Expo in 1970 around the same time as the Admonishment of Cold Chain, China too had launched a five-year development plan of cold chain logistics around the same time of the Beijing Olympic Games in 2008 and the Shanghai Expo in 2010. However, unlike the Admonishment of Cold Chain in Japan, the primary goal of cold chain policies in China was the reduction of food losses due to the insufficiency of cold chain infrastructure. Although the plan demonstrated the targeted goals of the cold chain distribution and transportation as well as distribution loss, China still faces many challenges to achieve the goals. In contrast, the policy goal of health improvement and the strong links between government organizations and affiliated frozen food companies were the major drivers that helped develop cold chain nationwide in Japan.

Present Conditions of Production and Consumption of Frozen Foods in China

China's frozen food industry began in the 1970s. Initially, the freezing technology level was low and most products were exported to Japan. Almost all the frozen food processing enterprises were located in the east coastal areas with port facilities. In the 1980s, the productivity of frozen foods had dramatically improved due to technological advancements. The expansion of the cooked frozen food market in Japan had also supported the growth of the frozen food industry in China. Since 2000, China's frozen food production has been recording an average annual growth rate of 15%, which surpasses the 11% mark recorded by other food industries. The primary consumers of frozen foods in China are the unmarried youths. White-collar and gold-collar families are important consumers as well.

Relationships between Consumption of Frozen Foods and Socioeconomic Indicators in China

Annual food consumption fee and the number of household refrigerators and microwaves are highly correlated with annual frozen food consumption (Table 1). The penetration of household refrigerators and microwaves can be considered as important socioeconomic indicators to measure the dissemination of cold chain at the household level. In addition, the number of household refrigerators and microwaves increased with the increasing income level in urban areas (Table 2). The results suggested that GDP per capita is highly correlated with the consumption of frozen food for domestic use in China. Microwaves were less penetrated than refrigerators in China, partly because the elderly people are reluctant to use them due to their dietary habits of cooking cold food in a pan. Data concerning the number of household microwaves in rural areas is not available.

Table 1: Correlation coefficients between annual consumption of frozen foods and socioeconomic indicators of China in 2010

Correlation of annual frozen food consumption (2010) with:	R^2
Annual food consumption fee of the residents in rural area	0.91
Number of household refrigerators of the residents in rural area	0.87
Annual food consumption fee of the residents in urban area	0.85
Number of household microwaves of the residents in urban area	0.84
Number of household refrigerators of the residents in urban area	0.67
Population size	0.02

Source: 2011 Report of Cold Chain Logistics Development in China, 2011 Statistical Yearbook in China

Table 2: Correlation coefficients between annual consumption of frozen foods and socioeconomic indicators of China in 2010

Correlation of annual frozen food consumption (2010) with:	R^2
Annual food consumption fee of the residents in rural area	0.91
Number of household refrigerators of the residents in rural area	0.87
Annual food consumption fee of the residents in urban area	0.85
Number of household microwaves of the residents in urban area	0.84
Number of household refrigerators of the residents in urban area	0.67
Population size	0.02

Source: 2011 Report of Cold Chain Logistics Development in China, 2011 Statistical Yearbook in China

Cold chain trends in the East and Southeast Asian regions

The cold-storage capacity grows year by year in South Korea leading to an excess of cold-storage facilities by 7% as of December 31, 2011 [8]. The capacity is insufficient in the metropolitan and Busan areas and excessive in other areas [8]. The refrigeration warehouses are mainly for fishery products.

In Taiwan, the government proactively promotes low temperature distribution services; management know-hows and technologies relevant to cold chain are transferred from Japan. In particular, commodities made in Japan are highly value-added and distributed in well-arranged cold chain systems [9].

Some companies introduce cold chain logistics by themselves in the metropolitan cities of some ASEAN countries, but the cold chain infrastructure is not introduced nationwide. For example, Thailand is the second largest exporter of cooked frozen foods to Japan; however, the domestic market demand for perishable products that are controlled under low temperature is only in metropolitan Bangkok, the capital city of Thailand.

Indonesian fresh produce markets are mostly formed on the basis of local production for local consumption [9]. The wholesale market for fresh produce in Jakarta does not utilize any cold-storage facility since its inception in 1974. In addition, high transportation costs and quarantine duty on marine transportation constrict the development of domestic markets for perishable products.

Overall, ASEAN countries are potential markets for perishable foods distributed via cold chain infrastructure. In particular, constructing the cold chain system for Halal foods is one of the greatest challenges in terms of potential market size.

Socioeconomic indicators relevant to cold chain development in several Asian countries

Table 3 shows the penetration of household refrigerators and microwaves in Japan from 1960 to 2000. The penetration of refrigerators drastically increased just after the Admonishment of Cold Chain in 1965. The rapid penetration of microwaves occurred in the 1980s and 1990s, supported by the consumption of ready-to-eat frozen foods in Japanese households. In Japan, frozen foods were firstly introduced for industrial use in the 1960s and 1970s, and consumers were unconsciously involved in the consumption of industrial frozen foods [5].

Table 4 shows the socioeconomic indicators relevant to cold chain development in several Asian countries. All the countries in Table 4 have already achieved the income level of Japan in 1965. The penetration of household refrigerators and microwaves in China, Malaysia and Thailand is higher than that of Japan in 1965. On the other hand, the sales ratio of modern stores in India, Indonesia, Philippines, Thailand and Vietnam is less than half of that in China and Malaysia. The data of the sales ratio might indicate where and what kinds of foods consumers want to buy, leading to the possibility of disseminating cold chain in each country. In addition, Joshi et al. (2009) pointed out that poor infrastructure, high costs and lack of top level commitment were three main inhibitors of cold chain development in India [10].

Table 3: Penetration of household refrigerators and microwaves in Japan

Year	refrigerator (%)	microwave (%)
1960	10.1	-
1965	51.4	-
1970	89.1	2.1
1975	96.7	15.8
1980	99.1	33.6
1985	98.4	42.8
1990	98.2	69.7
1995	97.8	87.2
2000	98.0	94.0

Source: Cabinet Office of Japan (2011)

Table 4: Socioeconomic indicators of several Asian countries

Country	Penetration (%)		Sales ratio of modern stores (%)	GDP per capita (US$)	Equivalent Year of GDP per capita in Japan	Population (x 1000)
	Refrigerator	Microwave				
China	60.1	29.0	58.3	3,735	1972-73	1,354,146
India	17.9	16.2	2.0	1,032	1965-66	1,214,464
Indonesia	25.1	22.8	7.3	2,329	1970-71	232,517
Malaysia	84.8	37.2	44.3	6,950	1977	27,914
Philippines	47.5	29.1	18.4	1,748	1968-69	93,617
Thailand	87.3	61.0	19.8	3,941	1972-73	68,139
Vietnam	29.9	17.1	4.3	1,068	1965-66	89,029
Year	2009	2009	2007	2009	-	2010

Source: Euromonitor 2009; JETRO (2011)

Future prospects and issues in disseminating cold chain in Asian regions

Two key challenges in disseminating cold chain are in improving the health of the people and in reducing environmental loads [11]. In fact, health improvement of the people was the main goal of the policy relevant to cold chain in Japan, although the frozen food industry had intended to expand itself. Sustained extension of Japanese longevity after the mid-1960s was achieved partly due to salt reduction campaigns [12], which were supported by the Admonishment of Cold Chain. Another historical background of the cold chain development in Japan was the strong links between government organizations and affiliated companies of frozen foods.

With regards to environmental challenges, refrigeration is also partly responsible for ozone depletion and global warming [11]. Since the refrigerant HCFC (hydrochlorofluorocarbon) will be phased out in developed countries by 2020 and in developing countries by 2030, the alternative refrigerant issue is of crucial importance in considering the possibility of disseminating cold chain infrastructure in populated Asian regions. Normally, the performance of refrigerators is evaluated by the indicator called COP (Coefficient of Performance). Until now, there are no natural refrigerants of which the COP is higher than that of the banned Freon gas refrigerants.

In addition, dietary habits and cultures should be also considered in disseminating cold chain in each Asian country. The dietary habit of eating raw fish was one of the potential reasons why cold chain infrastructure was developed in Japan and the multi-stage structure of traditional distribution channels was also maintained for fishery products [9]. Foodways will be one of the most important issues to consider in the food cold chain development in the East and Southeast Asian regions.

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THE MALAY MIDDLE CLASS AND *SHARIAH* COMPLIANCE: THE CHANGING PATTERNS OF FOOD CONSUMPTION AND LIFESTYLES

Kartini Aboo Talib @ Khalid

Abstract

The consumption of food is influenced by religion, culture, norms and other rational economic and health criteria. In the case of the Malay Muslim middle class community in Malaysia, such changes include the concern for halal and *sunnah* products as well as the introduction of new food products such as noodles and breads, and other oriental foods. This article attempts to describe the changing patterns of food consumption and the new lifestyles of the middle class Malay community in Malaysia that have led to the rapid emergence of new markets, industries, processes, supply changes, and menus. Additionally, the new patterns of food consumption may cause a necessity to import new oriental products to cater to local demands. This article is a concept paper, exploratory in nature and derives its sources only from secondary data. The findings highlight that the human desire for new foods and tastes had urged the community to be creative in producing new food products that are Shariah compliant.

Keywords: Muslim, Shariah, foods, consumerism, ethnicity

Introduction

This paper attempts to descriptively share the experiences and observations of the author as a middle-class Malay Muslim woman, with regards to the changing patterns of food consumption in Malaysia. The narrative of personal observations includes a collection of stories from the past as secondary sources, exhibited to depict the changing patterns of food consumption and lifestyles. The paper outlines the discussion into several subthemes including the conceptual context of food, the Malay middle class, cultural dynamism, religion and diet, food patterns and lifestyles, and supply chain, spatiality and society. Factors such as religion compliance, cultural dynamism, and the everyday defined contexts and interactions have changed the way common foods are consumed and have pushed for the commercialization of foods to be in tandem with the introduction of new values into the diet of the current society.

Conceptual discussion

Studies on food have progressed in so many ways and have continuously attracted the interest of scholars to discuss the subject within the context of culture, body and identity, relation, and power. The perception of food as culture and identity also varies according to region and society. Culture is learned and embraced by a society and not entirely inherited. Similar to food and identity, food selection is often connected to ethnic behaviours and religious beliefs. Almerico (2014, p. 5) argues that the close affiliation between food and identity are due to the sentiments (such as familial love) and memories (such as family gatherings) associated with certain foods that constructively define the identity of an individual.

Apart from ethnicity, food selection is also determined by social class, education, and health concerns (Kittler, Sucher, & Nelms, 2012). The social class factor is associated with the purchasing power of being able to buy high quality foods. In turn, the ability to discern between high and low quality foods comes with a certain level of education i.e. the knowledge about trans fats, saturated and high glycaemic foods. However, level of education as a factor can still be refuted as in the case of the history of Thanksgiving[1] where the native people of Whampanoag were said to have taught the pilgrims how to survive in a new environment.

Another concept on food, body and identity entails perceiving food habits as the foodways to describe the manner in which human choose, acquire, distribute, prepare, serve and eat (Kittler et al, 2012). In other words, a person's daily affirmation of eating habits reaffirms his or her cultural identity. The epitome of 'you are what you eat' is the expression that links food to identity thus forming the culture of food as the manifestation of habits built over time which constructively defines a person. However, such habits may be personalized due to health conditions. Nordstrom, Coff, Jonsson, Nordenfelt, and Gorman (2013) argue that food is a tool that plays an instrumental role in a person's health.

Food as relation refers to the concept of food as a medium that creates bonds between people (Belasco & Scranton, 2002). The mutual obligation to ensure each member of kin or relative is fed and happy during any get together signifies the willingness to share. We often see communities being built with food as the medium that connects each member with one another such as in wedding ceremonies. Meanwhile, the concept of food and power refers to social strata that establish the cultural capital and roles of each group in a society (Counihan, 1999). The dimension of power in food constitutes who makes the decision of what goes on the menu and who determines the roles and division of labour in the kitchen.

Another aspect that has to be highlighted equally is the concept of food and religious compliance. Although the aspect of religion is likely to be included in the cultural concept of food, it has a deeper meaning than just being a daily practice. Religion entails inner self belief and the devotion to God. For instance, Buddhists adhere to the principle of *ahimsa* or non-violence and avoid all foods that are associated with harming animals; Hinduism prohibits the consumption of cow meat as cows are deemed as the symbol of abundance; Judaism classifies food as either *kosher* (allowed) or *trefa* (forbidden), whilst Islam categorizes food as either *halal* or *haram*. *Halal* refers to foods that can be eaten without doubt (*halalan toyyiban*). *Haram* refers to foods that must be avoided including pork, alcohol, animals with fangs and claws, amphibians, and products containing animal emulsifiers (gelatines and margarines).

The Middle Class Malays

A Malay is defined in the Federal Constitution of Malaya in Article 160 of 1957 (latest amendment on December 2007) as a person who professes the religion of Islam, habitually speaks the Malay language, and conforms to Malay customs. The social class in Malaysia does not show any crucial gaps. The nation's economic growth had been steady since gaining independence in 1957 and had exhibited a few surplus economic gains along the years up until present time with inflation being monitored closely. Although Amy Chua (2004) argues that the minority Chinese is controlling the economy,

with the New Economic Plan and other transformational plans, the Malays and other ethnics have been able to keep abreast with competition over resources and opportunities.

The social stratification is layered but the middle class Malays are those who have permanent jobs, steady incomes, are highly educated and dominating the public and private sectors. Those that fall in this group share many similarities due to their educational background and exposure to outside practices and systems. Therefore, they are the moving factor that can demands for change in the food market, industry, process, supply chain, and menus. They are the consumers that have enough purchasing power to push for new food markets to either appear, reappear or perhaps disappear[2].

Cultural dynamics

The dynamism of culture allows foods to be creatively consumed in a variety of colours, preps, cooking methods and tastes. According to Merriam-Webster (2017), the word *chef* is an old French term that means 'head', which obviously has no specific connection to food or cooking at all. The English borrowed the word five centuries ago to create the word 'chief' which eventually was used to refer to a 'skilled cook', an abbreviation of *chef de cuisine* meaning the 'kitchen head' or 'kitchen chief'.

Even the Malay community's version of cooking in the kitchen is entirely different from the compartment of most kitchen spaces that are commonly located inside the house, apartment or mansion. In wedding ceremonies in rural areas such as Kuala Nerang and Kodiang in the state of Kedah, collective cooking is still practised where the community will build tents to accommodate the makeshift kitchen and use chopped logs and coals as fuel for cooking. Food preparation is carried out under the tents with the males and females working together to ensure that the foods are cooked in a timely manner for the wedding ceremony.

In fact, my best food experiences were at several wedding ceremonies in the rural areas in Kedah and Perlis. The rare foods and delicacies were fascinatingly delicious and memorable such as meat or poultry gravy cooked with banana stem, sweet potatoes, spices and coconut milk, or meat or poultry gravy cooked with bamboo sprout, spices and coconut milk or candlenut beans. Such rare exquisite dishes may not represent class, but the superb taste makes one appreciate the gift of nature that is yet to be explored or utilized by the upper class or the royal elites.

Religion and diet

Anas, Wan Mohd Yusof, and Mahani (2010, p. 239) argue that in Islam, Allah SWT has made it compulsory for every Muslim to consume food that is halal (lawful) and of good quality with sufficient minerals and vitamins. Additionally, halal and good quality foods will ensure physical health and become a boosting factor to increase an individual's *taqwa* (God-fearing) and gratefulness to Allah. The word *tayyib* means good and pure which entails the process of preparing and serving foods that are fresh and free from unlawful elements such as corruption, bribery, usury or other forms of falsehood in the eye of the law.

Haram food is forbidden even if it is superior in quality and is highly in demand, as its consumption is believed to cause bad or unscrupulous behaviours and may result in

negative implications for the individual and his or her family in this world and in the hereafter as stated in the Sunnah of the Prophet Muhammad (PBH). Foods that we eat nourish our body through our blood streams; thus, based on this notion, haram foods will corrupt our heart and soul while halal foods will purify our overall well-being.

There are 1.8 billion Muslims around the world and the demand for halal food is enormous with its trade reaching an estimated USD2.3 trillion dollars (Mustafa & Azlin, 2014; Hamidon, 2012). The evidence is clear that the demand for halal food is huge and the profit returns is by far the most lucrative; thus, in Malaysia, the suppliers for Chinese, Japanese and Western foods are willing to comply with the Shariah regulations for food processing, sourcing, packaging, etc. The introduction of Chinese foods such as tofu, fish cake, fish balls, soy sauce, dim sum, spring rolls, rice noodles, yellow egg noodles, *kuey teow* and so on are made possible by Muslim entrepreneurs be it Chinese Muslims or Malay Muslims. In addition, such abovementioned Chinese foods are introduced to the Malay Muslim communities with the guarantee of a halal logo as a form of assurance of their halal ingredients and manufacturing.

Changing food patterns and lifestyle

Foods are able to coexist within different values, principles, religions (improvised foods) and cut across ethnic lines as well as massively penetrate the ethnic taste that urge individuals, communities, and local wisdom to invent new recipes. Meeting certain religious requirements, fitting in the contexts of war or peace, and catering to trending new lifestyles such as veganism are the essential factors that transform a society regardless of ethnicity.

Another food invention is canned food which was inspired by war. The idea was conceptualized by Napoleon Bonaparte (1769-1821) who wanted to make food available to feed soldiers in the war zone. In 1795, the French government offered a price of 12,000 francs for a method to preserve foods for the army's supply. Chef Nicholas Appert was awarded the prize for his brilliant method of packing foods in bottles, corking them and submerging them in boiling water to stop the foods from getting spoiled easily. The idea of heat destroying or neutralizing the ferments that cause foods to spoil had inspired Appert to open the world's first commercial cannery business in Paris (Phillips, 2007).

Other than the context of war that urges people to be creative for survival, the curiosity to learn new recipes, new ingredients, and new food processes from different communities is common in a multi-ethnic community. The fresh market can be a place for recipe exchange among people who frequent it. I remember accompanying my mother to the fresh market in Bagan Ajam Butterworth as a teenager. My mother was always friendly and she once asked an Indian lady the name of some odd looking beans and how to cook it. The Indian lady replied that the beans are called *mungai* among the Indians. *Mungai* or *moringa oleifera* is a type of bean that grows in a very big tree and is cooked without removing the stems. My mother cooked the *mungai* based on the recipe as told by the Indian lady. She added curry, spices, and eggs and stirred the mixture until the eggs are cooked. The result was delicious and fulfilling, and we ate it with hot rice and Minangkabau-style *sambal*.

Supply chain, spatiality and society

The halal food supply chain explicates the need for Shariah principles in the chain management beginning with the sources, processes, and packaging up to the point when the product reaches the consumers. Mentzer et al (2001) argue that the supply chain management is all about the progression of logistic management which entails building mutual trust, sharing and exchanging information about the market supply and demand, developing new products, and reducing maintenance cost of the manufacturer's equipment for food processing.

Thus, supply chain management can be categorized in spatial with urban and rural areas which are assumed to have different impacts on their dwellers. Most middle class Malays reside in the urban areas. The consumption habits and purchasing behaviour are modified according to spatiality and population too. The halal concept applies to all products including foods and non-edible products such as pharmaceuticals, cosmetics, financial services, etc (Emi, Harlina, Muhamad Rahimi, & Faisol, 2013). The integrity and transparency of the food supply chain would guarantee the origin and healthiness of food sources which in turn would help the disease control management unit to swiftly identify the sources of food contamination or animal transmitted diseases if an outbreak occurs.

Halal food has always been available in urban and rural areas even before the concept of halal became a mainstream concern. The access to and the supply chain management for halal food is a non-issue for most Muslims in Malaysia, but it becomes paramount for those selling goods at retail shops or wholesale hypermarkets/supermarkets. The new consumerism value is added into the daily consumption on top of the concern for possible contamination or animal cruelty. Now, the halal symbol is mandatory for all food and non-food items to ensure Shariah compliance.

Conclusion

The generic term for food consumption can be used as a socio-economic indicator to review poverty, class, health, etc, but this paper proposes to consider other factors including culture, symbolism, ethnicity and customs that invent a logical perspective to clarify the changing food patterns and lifestyle. The subjectivity of interaction between multi-ethnic, religious compliance, customary and contexts be it rural or urban, may forge new values and innovations for new foods to be invented and later supplied to the masses.

Endnotes

1. http://www.history.com/topics/thanksgiving/history-of-thanksgiving/print
2. 'Appear' refers to new foods on the go that require simple preparation, but are highly nutritious like oatmeal energy bars; 'reappear' refers to well-known foods that are re-invented to cater to certain lifestyles such as apple pies that are re-invented as veggie pies to suit vegans; and 'disappear' refers to foods that were traditionally made but failed to be passed down to the new generation and hence disappears.

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MOTIVES FOR MILLENNIALS' CHOICE OF TRADITIONAL FOOD AND THEIR LEVEL OF CONSUMPTION: A CROSS-CULTURAL COMPARISON

Tan Ai Ling
Yow Taw Onn

Abstract

Malaysian cuisine is known for its vibrant and diverse flavours which reflect the multi-ethnic makeup of its population. Hence, it is interesting to investigate how the differences in backgrounds and cultures could lead to different motives in the food choice of various ethnic groups. This study aims to investigate the relationship between the consumption of traditional food and the motives for such food choice among millennials in Malaysia with ethnicity as the moderator. A self-administered questionnaire was distributed to 922 representatives of millennials which consisted of Malays (31%), Chinese (35.9%) and Indians (33.1%). The results of this study indicate that health concern, familiarity, mood and ethical concerns significantly influence the millennials' general attitude towards traditional food consumption. Additionally, PLS-Multi-Group Analysis (MGA) was employed to study the association between food choice motives, general attitude and level of consumption among young Malays, Chinese and Indians in Malaysia. The results show that the differences in backgrounds and cultures between Malays and Chinese, and Malays and Indians, moderate the effect of mood on the general attitude towards traditional food. While for Chinese and Indians, different backgrounds and cultures moderate the influence of convenience on the general attitude towards traditional food.

Keywords: Food choice motives, millennial, multi-group analysis

Introduction

The concept of traditional foods has been defined differently in past literatures. According to Trichopoulou, Soukara and Vasilopoulou (2007: 420), traditional foods refer to the types of food that have been consumed regionally by a population over an extensive period of time. While Jordana (2000) added on by commenting that a traditional product must be linked to a territory and represents part of the set of traditions to ensure its continuity over time. The European Commission had specified that the period of consumption for a certain traditional food in the community market should be at least one human generation, which is at least 25 years and which had shown transmission between generations (European Commission, 2006). Although the concept of traditional foods is well defined in past literatures, most of the definitions were derived from the standpoint of experts except for the published work by Guerrero *et al* (2009) which defined traditional foods based on consumer perspectives. According to Gurrero *et al* (2009:348), traditional food product refers to "a product frequently consumed or associated with specific celebrations and/or seasons, normally transmitted from one generation to another, made accurately in a specific way according to the gastronomic heritage, with little or no processing/manipulation, distinguished and known because of its sensory properties and associated with a certain local area, region or country." In other words, the dietary patterns of a particular population, specifically their consumption of traditional foods are often seen as a reflection of their cultural inheritance.

According to Laroche *et al* (2005), food consumption relates closely to ethnic identity. Malaysia is a multi-racial country and each ethnic group has its own unique traditional food. For centuries, Malaysia has been a melting pot of different cultures where the interaction and integration among the various ethnic groups makes the traditional foods in Malaysia unique as compared to that of other countries.

However, in Malaysia especially among the younger generation, traditional foods have gradually been ignored due to the influence of information technology (Nor *et al*, 2012). Many of them may know the traditional foods, but may not know how to prepare them. Hence, scholars have highlighted the importance of preserving the techniques and skills of preparing traditional foods and transmitting them to the future generation (Kwik, 2008; Yohannes, 2009) as such knowledge is deemed as part of the cultural identity.

Hence, this study aims to investigate the factors that influence the consumption of traditional food among millennials. To achieve this objective, this study will firstly examine the relationship between food choice motives and general attitude towards traditional food among the millennials in Malaysia; secondly, it will investigate the association between the general attitude towards traditional food and the traditional food consumption among the millennials in Malaysia, and lastly it will compare the association between food choices motives, general attitude and traditional food consumption among young Malays, Chinese and Indians in Malaysia.

Methodology

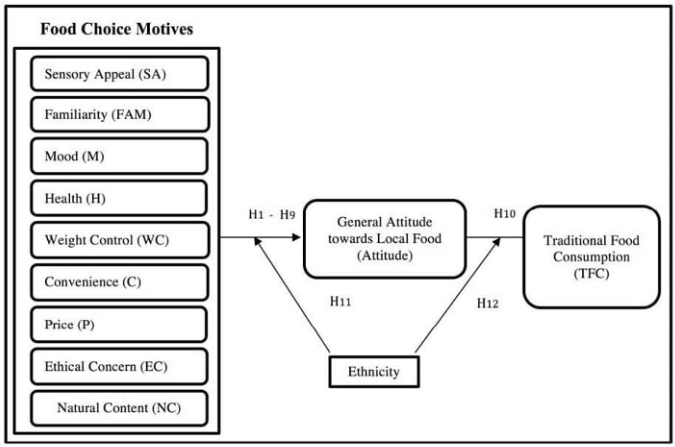
A quantitative survey was conducted to test the framework (refer to Appendix 1). The conceptual framework was adapted from Pieniak *et al* (2009) whereby studies with the new moderating effect of ethnicity were tested in this study. A total of 922 university students were selected using the judgmental sampling approach. The criteria used in the selection were: (1) the sample must be born between the years 1979 and 1994, (2) the sample must be a Malaysian to ensure their familiarity with Malaysian traditional foods, and (3) the sample must either be a Malay, Chinese or Indian. The context of the study was focused only in Selangor and the respondents were asked to complete a self-administered questionnaire which consisted of 40 items adapted from the studies by Steptoe, Pollard and Wardle (1995) and Pieniak *et al* (2009). The results of the study were analyzed using the Smart PLS version 3.0.

Figure 1: The Conceptual Framework adapted from "Association Between Traditional Food Consumption and Motives for Food Choice in Six European Countries" by Pieniak *et al*, 2009, *Appetite, 53*, p. 102. Copyright 2009 by Elsevier Ltd.

Respondents' Demographic Profiles

Out of the 922 respondents recruited, 42.7% are males and 57.3% are females. In terms of education level, 71.8% are now pursuing their first degree and only 3.5% are now studying in postgraduate programs.

In terms of the ethnicity of the respondents, there were almost equal proportions between the three ethnicities where 35.9% of the respondents were Chinese, 31% Malays and the remaining 33.1% Indians. Since the target group of this study is millennials who are mostly currently pursuing tertiary education, most of them (87.7%) have a limited budget for food expenses and can only spend below RM600 monthly for food. The demographic breakdown of the respondents is presented in Appendix 1 below.



Measurement model

Confirmatory factor analysis and construct validity

The convergent validity was tested to show the degree of agreement between the multiple items used to measure a particular concept. The factor loadings, composite reliability (CR) and average variance extracted (AVE) were used to examine the convergence validity. These procedures were suggested by Hair, Black, Babin & Anderson (2009). The outer loadings of the constructs have all exceeded the recommended value of 0.5 (Hair *et al*, 2009). Thus, all the items were used to interpret

the factors. As presented in Appendix 2, the Cronbach's alpha, which is used to assess the internal consistency, were all above the suggested value of 0.7 (Nunally, 1978). To examine the average amount of variance in an indicator that a latent construct is able to explain, the average variance extracted were recorded. The average variance extracted for all the constructs is above 0.5, which is the recommended value by Bagozzi and Yi (1988). The results are summarized in Appendix 2.

Discriminant validity tests the constructs that should be unrelated, and in fact, are unrelated (Campbell & Fiske, 1959). Referring to the Fornell-Larker Criterion, the average variance extracted from a latent variable should be higher than the squared correlations between the latent variable and all other variables. All the inter-construct squared correlations as displayed in Appendix 3 are less than the average variance extracted from the construct. Thus, the measurement model satisfies the criteria of convergent and discriminant validity.

Structural Model

The next analysis is on the causal relationships between the motives for food choice and the overall attitude towards traditional foods and the level of consumption. Based on Appendix 4, familiarity ($p = 0.000$), Mood ($p = 0.069$), Health ($p = 0.009$), and Ethical concern ($p = 0.043$) were significantly related to the general attitude towards traditional food. H_2, H_3, H_4 and H_8 were supported. These factors explain 8.9% of the variance in the overall attitude towards traditional foods. The R^2 was estimated to determine the predictive power of the model. This result shows a relatively weak predictive power as any value lower than 0.13 is considered weak as suggested by Cohen (1988).

In assessing the impact of the overall attitude towards traditional foods on the level of consumption, the p value was found to be very close to zero, which is significant. The H_{10} was supported. In addition, 29.3% of the variance on the level of consumption can be explained by the model. The predictive power is classified as moderate (Cohen, 1988).

The other objective of this study is to examine the association between food choice motives, general attitude and the level of consumption among young Malays, Chinese and Indians in Malaysia. Appendix 5 shows the results of the multi-group analysis between the three ethnic groups. There were only three significant differences found from two factors, mood (H11c) and convenience (H11f), between the three ethnic groups. The effect of moods on the overall attitude towards traditional food was significantly different between the young Malays and Chinese ($p = 0.053$), and between the young Malays and Indians ($p = 0.087$). Besides this, a significant difference was also found in the factor of convenience between the young Chinese and Indians ($p = 0.085$).

Discussion and Conclusion

As presented in Appendix 4, four out of the nine food choice motives demonstrated a significant relationship with the general attitude towards traditional motives among the young Malaysians. In this study, health is significant in affecting young Malaysians' attitude towards traditional foods. However, the result of this study is in contrast with that of Pieniak *et al* (2009), which focused on investigating factors

influencing European Consumers' food choices. The difference in the results may be caused by dietary and cultural dissimilarities (Steptoe *et al*, 1995) as the Europeans' take on traditional foods often involve high amounts of fat with high microbial risk (Pieniak *et al*, 2009).

Mood is another motive that significantly affects the millennials' general attitude towards traditional foods. This finding is similar to a study done in China, where mood is important in affecting consumers' intention of purchasing traditional and European foods (Wang *et al*, 2015). The importance of mood in influencing millennials' eating behaviour could be explained by their emotional state that is often mired by stress, depression, and hopelessness (Taub & Robertson, 2013). It is suggested that traditional dishes, especially those prepared by their mothers, make them feel happier as these are comfort foods that have nurtured their soul and body since childhood (James, 2004).

Furthermore, familiarity showed a positive association with the millennials' general attitude towards traditional food. According to Pieniak *et al* (2009), a positive effect on the attitude towards traditional food means that people who put importance on familiarity are more likely to go for traditional foods in their daily food selection (Pieniak *et al*, 2009). This result may hint that young Malaysians are not so adventurous when it comes to traditional food choice. Thus, they are more likely to purchase traditional foods that are familiar or available in familiar markets (Wang *et a*l., 2015). This result is not surprising as although the young generations in Malaysia are open to trying foods other than their own, they are bounded by basic values such as those prescribed by their religion. Religion plays an important role in shaping one's selection of foods (Kittler *et.al*., 2012).

Another surprising result derived from this study is the importance of ethical concerns in influencing the millennials' attitude towards traditional food. In the study by Pieniak *et al* (2009) which compared food choice motives and consumers' attitudes toward traditional foods in six European countries, the influence of ethical concerns on consumers' attitude was not significant. However, the contradiction in the results may be due to the age group of the population studied. In the said study by Pieniak *et al* (2009), the age range for the samples recruited was between 20 to 70 years old while this study only recruited millennials between the ages of 22 to 37 years old. Based on past studies (e.g. Ares & Gambaro, 2007; Westenhoefer, 2005; Steptoe *et al*, 1995), socio-demographic characteristics such as age, gender and income lead to different food choice motives among the population.

Meanwhile, in comparing the association between food choice motives, general attitude and level of consumption among young Malays, Chinese and Indians in Malaysia, only mood and convenience moderate the food selection among these three ethnic groups. As shown in Appendix 5, the effect of mood on the attitude towards traditional food among young Malays was significantly different from those of the young Chinese and Indians. Besides this, young Chinese and Indians have the perception that traditional foods are easy and simple to prepare or are easily purchased at stores (Convenience). These findings contradict that of Mohd-Any, Mahdzan and Chua (2013) who found that there was only a slight difference (familiarity) in the food choice motive between Malays and Chinese.

Apart from the contributions made by this study, there are also several limitations worth noting. First is the measurement of traditional food consumption using a single item; although there is an increasingly positive voice for the use of a single item to reduce the length of questionnaires which is likely to overwhelm the respondents (Wanous, Reichers and Hudy, 1997; Fuchs & Diamantopoulos, 2009), the use of multi-item scales remain dominant in the field of research. Secondly, the samples in this study are biased towards higher education millennials as the investigation focused only on university students. It is advisable for future researchers to expand the population to include those with lower education as level of education could also be a factor affecting one's food decision.

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Appendix1: Demographic Breakdown of the Sample (n=922)

	Frequency (n)	*Percentage (%)*
Gender		
Male	394	42.7
Female	528	57.3
Race		
Malay	286	31.0
Chinese	331	35.9
Indian	305	33.1
Education Level		
Pre U/Foundation	122	13.2
Diploma	106	11.5
Degree	662	71.8
Postgraduate	32	3.5
Monthly Expenses on Food		
RM 200 or lower	194	21.0
RM201-400	392	42.5
RM401-600	223	24.2
RM601-800	73	7.9
RM801-1000	24	2.6
RM1000 and above	16	1.7

Appendix 2: Factor Loadings and Reliability

Constructs	*Outer Loadings*	*Cronbach's Alpha (α)*	*CR (ρ)*	*AVE*
Sensory Appeal		0.803	0.869	0.625
Smells nice	0.831			
Looks nice	0.754			
Has a pleasant texture	0.803			
Tastes good	0.772			
Familiarity		0.729	0.846	0.648
Is what I usually eat	0.816			
Is familiar	0.826			
Is like the food I ate when I was a child	0.772			
Mood		0.824	0.870	0.532
Helps me cope with stress	0.499			
Helps me cope with life	0.803			
Helps me relax	0.788			
Keeps me awake/alert	0.764			
Cheers me up	0.692			
Makes me feel good	0.784			
Health		0.844	0.885	0.562
Contains a lot of vitamins and minerals	0.780			
Keeps me healthy	0.770			
Is nutritious	0.787			
Is high in protein	0.728			
Is good for my skin/teeth/nails, etc	0.727			
Is high in fibre and roughage	0.701			
Weight Control		0.903	0.939	0.836
Is low in calories	0.890			
Helps me control my weight	0.928			
Is low in fat	0.924			
Convenience		0.776	0.840	0.515
Is easy to prepare	0.681			
Can be cooked very simply	0.707			
Takes no time to prepare	0.600			
Can be bought in shops close to where I live or work	0.800			
Is easily available in shops and supermarkets	0.781			

Appendix 3: Factor Loadings and Reliability (Continued')

Constructs	*Outer Loadings*	*Cronbach's Alpha (α)*	*CR (ρ)*	*AVE*
Price		0.804	0.881	0.712
Is not expensive	0.860			
Is cheap	0.828			
Is good value for money	0.842			
Ethical Concern		0.747	0.852	0.658
Comes from countries I approve of politically	0.795			
Has the country of origin clearly marked	0.839			
Is packaged in an environmentally friendly way	0.800			
Natural Content		0.853	0.908	0.768
Contains no additives	0.842			
Contains natural ingredients	0.884			
Contains no artificial ingredients	0.901			
General Attitude Towards Traditional Food		0.804	0.885	0.719
Unhappy---- Happy	0.836			
Dull---------- Exciting	0.850			
Terrible ------Delightful	0.857			
Traditional Food Consumption		1.000	1.000	1.000
To what extent do you consider yourself a consumer of traditional food	1.000			

Appendix 4: Fornell-Larker Criterion Analysis (Inter-construct correlation)

	1	2	3	4	5	6	7	8	9	10	11
Convenience	**0.717**										
Ethical Concern	0.127	**0.811**									
Familiarity	0.239	0.221	**0.805**								
General Attitude	0.159	0.158	0.194	**0.848**							
Health	0.256	0.305	0.208	0.213	**0.750**						
Traditional Food Consumption	0.120	0.095	0.132	0.541	0.095	**1.000**					
Mood	0.296	0.191	0.161	0.176	0.366	0.097	**0.729**				
Natural Content	0.277	0.281	0.113	0.119	0.483	0.091	0.228	**0.876**			
Price	0.403	0.114	0.204	0.130	0.289	0.118	0.231	0.330	**0.844**		
Sensory Appeal	0.354	0.139	0.221	0.177	0.343	0.142	0.360	0.314	0.391	**0.791**	
Weight Control	0.214	0.293	0.150	0.139	0.456	-0.001	0.232	0.492	0.321	0.231	**0.914**

Appendix 5: Structural Model

Relationship	Standard Path Coefficient, β	T-Statistics	P Values	Supported
H_1: Sensory Appeal -> Attitude	0.062ns	1.640	0.101	No
H_2: Familiarity -> Attitude	**0.117*** **	**3.650**	**0.000**	**Yes**
H_3: Mood -> Attitude	**0.066***	**1.821**	**0.069**	**Yes**
H_4: Health -> Attitude	**0.110*** **	**2.612**	**0.009**	**Yes**
H_5: Weight Control -> Attitude	0.022ns	0.569	0.569	No
H_6: Convenience -> Attitude	0.052ns	1.457	0.145	No
H_7: Price -> Attitude	0.009ns	0.244	0.807	No
H_8: Ethical Concern -> Attitude	**0.072***	**2.027**	**0.043**	**Yes**
H_9: Natural Content -> Attitude	-0.030ns	0.770	0.441	No
H_{10}: Attitude -> Traditional Food Consumption	**0.541*** **	**20.199**	**0.000**	**Yes**

Note: *Significant at $p < 0.10$, **Significant at $p < 0.05$, ***Significant at $p < 0.01$

Appendix 6: MGA between Malay, Chinese & Indian

	Malay vs Chinese		**Malay vs Indian**		**Chinese vs Indian**	
	Path coefficient diff	p-value	Path coefficient diff	p-value	Path coefficient diff	p-value
H11a: Sensory Appeal-> Attitude	0.013	0.448	0.096	0.159	0.083	0.820
H11b: Familiarity -> Attitude	0.035	0.676	0.017	0.416	0.052	0.757
H11c:Mood -> Attitude	**0.139***	**0.053**	**0.124***	**0.087**	0.015	0.424
H11d:Health -> Attitude	0.018	0.427	0.011	0.537	0.028	0.368
H11e:Weight Control-> Attitude	0.028	0.611	0.053	0.692	0.025	0.393
H11f:Convenience -> Attitude	0.018	0.419	0.106	0.861	**0.124***	**0.085**
H11g:Price -> Attitude	0.047	0.690	0.108	0.861	0.061	0.253
H11h:Ethical Concern-> Attitude	0.147	0.947	0.043	0.672	0.104	0.883
H11i:Natural Content -> Attitude	0.093	0.211	0.057	0.317	0.036	0.359
H11j: Attitude -> Traditional Food Consumption	0.047	0.771	0.028	0.341	0.075	0.883

Note: *Significant at $p < 0.10$, **Significant at $p < 0.05$, ***Significant at $p < 0.01$

FUTURE OF FOOD: PERCEPTION OF CONSUMING VIRTUAL FOOD

Rokhshad Tavakoli
Tan Ai Ling

Abstract

Virtual technology through the creation of new realities is re-ontologizing our world. Virtual tourism is one of the areas that receive particular attention from software developers and consumers. The virtual tourism experience involves all the aspects of actual tourism such as leisure and recreational activities, food, and sex. Since food is one of the most important components of daily life and of the tourism experience, studies on virtual food perception and experiences are very significant.

Many researches have been conducted on virtual food experiences in various fields such as psychology, food and computer sciences. However, virtual food has relatively been neglected by tourism scholars. This paper attempts to explore the perception on virtual food consumption by applying the qualitative content analysis approach under the social constructivism paradigm. The sociological perspective of the acceptance of virtual food consumption was analysed in this paper. The data was collected from comments made on a video on virtual food shared on Facebook. The data set was analysed using the thematic method. The key findings of this study show that the idea of virtual food technology is accepted by most of the viewers despite several negative perceptions towards it. Most of them look forward to experiencing it and at the same time suggested to implement it in a sustainable development so as to improve health conditions, solve hunger crisis and obesity, and spend less on food products.

Keywords: Future of food, perception, virtual food, tourism experience

Introduction: Background of the Study

The Meaning of Food

"Food is a many-splendored thing, central to biological and social life" (Counihan, 1999, p.6). As defined in the dictionary, food is any substance that humans or animals eat or drink or plants absorb to maintain life and growth (English Oxford Living Dictionaries, n.d.). According to Rozin (1996), humans begin the food trajectory from a single food such as milk and expand it to include an incredible variety of foods as time progresses. The need for a variety of foods can be explained using the Omnivore's Paradox theory as proposed by Rozin (1976). According to researchers, humans as omnivores can adapt to all earthly environments due to the flexibility that they have in food selection (Rozin, 1976; Fischler, 1988). On the other hand, the disadvantage of being an omnivore is that a variety of foods is required as no single food can provide all the nutrients needed for survival. Dilemma arises when omnivores have to be diverse in their food intake and yet have to be conservative in their food choices to protect themselves against poisonous foods (Kittler, Sucher & Nelms, 2012).

As compared to the ancestral environment, in the modern developed world where there is a surplus of a variety of easily accessible foods, human's selection of food is overwhelmed by other more complicated factors (Rozin, 2005). Apart from providing essential nutrients for humans to survive, food also serves as the vehicle for the expression of social relations and values such as food sharing among family and friends (Rozin, 2005; Kittler et al, 2012). Besides that, foods are also the marker for identity and differences (Caplan, 1997). The way humans use foods, including how the foods are obtained, selected and distributed to who prepares, serves and eats them, help to identify both their oneness and otherness (Fischler, 1988; Kittler et al, 2012). In other words, foods that we eat reflect our self-identity and the differences in our eating habits also indicate our differences with others. Hence, the food that we eat is the reaffirmation of ourselves as well as our cultural identity.

The future food – Virtual Food

The advancement of technology has changed the way people use food. The traditional concept of culturally-determined food preferences and consumption was broken in the 21st century as food preferences and consumption are now influenced by more complicated factors such as information, attitudes, perceptions and other psychological factors (Senauer, 2001). Food taste, availability, cost and convenience are not the only deciding factors that influence food preferences and consumption. Food selection is now also determined by other complicated elements such as health (Kim, Lee, Gon Kim & Kim, 2013; Jang, Kim & Yang, 2011), good service and pleasant dining atmosphere (Susskind & Chan, 2000), food safety (Kornelis, De Jonge, Frewer, & Dagevos, 2007) and others.

With the advent of Virtual Reality (VR) technology, people can consume their favourite foods without having to worry about unwanted side effects such as extra calorie intake and allergies. Virtual Reality (VR) is an innovative technique that is able to induce the feeling of being in a world that exists outside of the self (Riva & Waterworth, 2003). The visual presentation of the virtual scenario was proven to be more real and vivid as compared to the one created through imagination and memory (Gorini & Riva, 2008). As opposed to real life settings, the virtual environment is safe and can be tailored to the user's needs (Gorini, Griez, Petrova & Riva, 2010). It allows the user to interact and manipulate the 3D environment, mimicking interaction with objects in the real word (Gorini etal, 2010).

The VR technology has become an effective therapeutic tool in clinical psychology treatment. Past researchers showed that VR is more effective than traditional treatments in improving eating disorders (Perpiñá et al, 1999; Riva, Bacchetta, Baruffi, Rinaldi, & Molinari, 1999; Riva, Bacchetta, Baruffi, & Molinari, 2002). An interesting preliminary study was conducted by Gorini et al (2010) where the comparative reactions towards real food, food in photos and virtual food between patients with eating disorders and healthy subjects were assessed. The research showed that the virtual foods and real foods were equally effective in inducing emotional responses among patients with eating disorders. However, there was no significant difference found within the control group, as food is not a stressful stimulus for healthy people. The researcher argued that the result is not surprising as the sense of presence created by the VR immersion is just as effective as real exposure in eliciting human emotional responses as compared to the static picture.

The findings from the research suggest that the potential usage of VR is not only limited to experiments, trainings, and clinical contexts. With the development of the technology, it will only be a matter of time before VR is commercialized and utilized in our daily lives.

Methodology

The aim of this research is to explore the general perception of virtual foods by analysing the online comments about the concept. This paper employs the interpretative content analysis and is driven by the social constructivism paradigm. There are two reasons behind this choice. Firstly, virtual food is not conceptualised in the field of social sciences as it is a very new technological concept. Secondly, the choice is made based on the assumption that qualitative research designs are more appropriate than quantitative approaches in examining the complexity of the sociology of food consumption.

Content analysis has become very popular among researchers especially after the advent of social media as users generate valuable contents voluntarily. This method is traditionally defined as an objective, systematic, quantitative analysis of message characteristics (Neuendorf, 2016). However, recently, many researchers have applied qualitative methods to analyse the messages and comments in weblogs, Facebook, twitter, specialised social media such as TripAdvisor, AirBnB in tourism and hospitality.

Idea validation and market research through social media has become an effective strategy for many developers in getting feedback from the audience before mass production (Batra & Lane Keller, 2016). Therefore, the current study attempts to analyze the general comments made on a commercialized version of a video on virtual food, which provides some basic information about the future of the concept. The one-minute video promotes virtual food as a way to enjoy food without the calories. The project lets the viewers experience the taste, smell, and feel of any dish. It starts with an algae-based 3D printed cube that provides texture and taste. A gyroscopic utensil tracks the morsel's position in the virtual space that allows the users of the VR headset to make the cube look like the dish that they are eating. An aromatic diffuser provides the appropriate smells, while the bone conduction technology mimics the sensation of chewing. The gastronomic VR experience was developed by an LA-based start-up called Kikori. To date, they've made simulations for steak, sushi, and pie with more on the way.

The comments were collected three months after Kikori shared the idea in three different Facebook pages. The collected data was treated qualitatively and an interpretative thematic analysis technique was applied to code the comments (Neuendorf, 2016). The main focus of this method is on observing and coding the messages in order to form a conceptual theoretical frame.

All of the comments were gathered in one sheet and the researchers used the constant comparison method by conducting a thematic analysis. The constant comparison method identifies the differences and similarities of the dataset (Charmaz, 2014; Glaser & Strauss, 1967). This categorization comprise of three general themes i.e. positives, negatives, and natural. Each theme has several subcategories that elaborate on the concept.

Findings and Discussion

Positive thoughts and possible future implications

Most of the comments are very positive and led the viewer to think about the future of virtual reality. The participants wrote their thoughts about virtual tourism and how they might travel to space, under water or even traveling to the past. One of the viewers deemed virtual reality as an incredible platform for learning. Another one believes that in the near future, parents will only need to set a programme for a few years and leave their kids to grow up in virtual reality. He commented that our food consumption, sleeping behaviour and way of visiting family members will all change with the availability of hologram technology. Others went further by suggesting the advent of virtual food technology for the future residents of other planets.

> I think that virtual reality could become something magnificent. Haven't you ever wondered what it would be like to traverse space? Or the bottom of the ocean? Or what about going to temples that have since been lost to us? With the information and technology we have available to us now, just imagine what an incredible learning experience virtual reality could provide us. (Nicole Katherine)

> And this is today; July 2016; imagine 2020 or 2030. No need to do anything than be born. Parents will put fully integrated VR suits on their kids, program it for a good 5 years at a time, put on their own VR suits and go to the Maldives or be a movie star or whatever....algae based nutrition, exercise in VR, optimal sleep, meeting family holographically etc....not a fantasy anymore....unfortunately.... (Tom Einar Jensen)

> Great for other planet habitation? (Steve Druhe)

The idea of virtual food actually seems to be anticipated by many; hence, in this case, the acceptance of the new technology and new food would no longer be an issue.

> Exactly what I was thinking aha. (Alejandro Velez)

> It happened, I have told you about this a long time ago :P Sabrina Coudry (Stevanus Kristianto Nugroho)

> Jonathan Skivo your dreams have now all come true. (Bill Smith)

> Omg.... This is amazing Christine (Sean Lee)

> Vlasak Chris Walters didn't we talk about this last weekend? (Jan Felix)

This is in fact more than just the acceptance of new technology as many are actually excited to have their dreams turn into reality. Moreover, the video made them think about the positive implications of virtual foods such as saving resources and managing health concerns.

Solving the hunger crisis

There are positive thoughts about the efficient use of resources using this technology. There is a suggestion to use virtual foods to overcome the global hunger crisis.

> …now we can send virtual food to third world countries! (Michiel Heckemann)

Health concerns

Some of the viewers believe that virtual foods could help solve the problems of alcohol poisoning, drunkenness, food allergies and chemical foods. It could also be used to alter the bitter taste of pills and help people with stomach problems. Some others believe that virtual food technology should focus on non-healthy foods rather than on sushi and steak, which are already considered as healthy food.

> Imagine if you could drink virtual wine. There would be no spills or hang over (Amy Robinson)
>
> Or drunkenness (Susan Etheridge)
>
> The protein pills of the future - and they taste like the chocolate pudding of the past. (Alison Sammes)
>
> Consume your favorite foods--literally without the chemicals! (Henry Esteban)
>
> What if you're allergic to a certain type of food and love the taste or smell of it? (Adam Bouktila)
>
> Perfect for us with stomach problems that limit what one eats! (Susan Georgis)
>
> For people with stomach disorders, this would be amazing. So many people (including kids) are tube fed, for different reasons, and can't eat. This would be so nice! (Toni Kay Pettit)
>
> So, actually this is more about allergies and intollerances than diet..? (Lydia Stouten)
>
> Amy Robinson I absolutely need this when the make chocolate ice cream and donuts - sushi and steak pffft seriously that's already healthy foods what a waste of resources (Mel Anderson)

The most highlighted issue involved weight control concerns. The viewers, particularly the females, perceive virtual food as an alternative to lose weight and fight obesity.

> I would be skinny if I ate virtual food instead of real food (Hye Young)

Oh no, now we'll have a nation of gluttons glued to their devices. Brave new world has arrived. (Dana Buckner)

I just want to eat a whole plate of nachos without any of the calories. (Jenna Nand)

Diets of the future Zehra Ulgen (Gina Ulgen)

Zehra Ulgen Love this idea!! This would satiate me on cheat day!! (Zehra Ulgen)

But people can't even go near food containing GMOs (Sam Kurtz)

Great for junk food craves!! (Joyce Schuler)

Amy Hutchinson..... Crisps could be back on the menu!! (Liam Grundy)

Rebecca, zero calories! Lmao!!! (Louie Withh Jacob)

I think you're all stupid because you're missing the great implications of this. People with morbid obesity can now reduce how much they eat by simulating food. The less calories they're absorbing means they'll rapidly drop weight. This means they can soon start exercising and not have to have a limb cut off just to live. I swear the comments in here are fucking pathetic. (Daniel Epfaust)

Economical aspect

Some of the viewers even pointed out the economic implication of having virtual food technology.

Wow! No need to shop for food! (George Abramowicz)

You will buy an expensive virtual reality headset just to eat a food well, you're a rich man (Ronjon Capul)

Future of virtual food

Some of the comments indicate the implication of virtual food on immersive experiences such as playing virtual toys and games.

How about cue further advancement in virtual reality allowing a more immersive experience. Cue people being able to use it for health, only actually in taking what the body requires. (Corey Lindgren)

We need this for your VR toy- James Riemers (Christine Campbell)

Looking forward to it, it will be another step close to virtual reality games (Ou Ye)

Negative thoughts

Several other comments made were not very positive about this technology as there is a perception that it will control the society. Another concern is that the technology would lead to a waste of resources and money which could otherwise be used to solve other important issues.

It's going to be used to keep us all in cages. (Nic Tanghe)

I'm rarely cynical of new technology but can we invest in providing *real* food for the world, plz thnx (Matt Saunders)

This is a huge and total waste of financial resources...those resources could be allocated to projects that actually matter. (Erin Nelson)

But now we can send virtual food to third world countries! (Michiel Heckemann)

Michiel Heckemann you are too funny. I just can't imagine the faces of all of the CFO's for cutting edge tech that will solve critical issues trying to get funded and hearing that the grant they applied for went to some virtual food venture. (Erin Nelson)

How is this kind of research bad? If you assume that any knowledge gained here only can be applied in this field you are very wrong. One example would be the radar, tech from it is now in your home warming food for you. Radar was invented for war, now it keep thousands of airplanes safe in the skies. (Kim Wahlman)

Kim Wahlman I am not saying its bad, but there are more time sensitive and critical issues that need solutions and funding now, fake virtual food is not critical lol. (Erin Nelson)

Ridiculous! They can do this but not cure cancer? Or even the common cold? Go on a stinking diet! Use some self control! (Deborah Anderson)

Sounds like the poster about those starving kids, saying "thank you for your prayers. they were very tasty and filling" (Irmeli Elandriel)

Negative health concerns

Some others also believe that this technology may cause eating disorders or anorexia.

I can see this innovation actually causing disorders XD (William H. Fleming)

Way to promote anorexia, ya jerks. This is ridiculous. (Ari B Hopkins)

Taste

> This virtual fudge tastes like crap. Mmm. Mmm. Not half as good as cyber-fudge. (Nate Gutierrez)

Technology acceptance

Commonly, non-acceptance would be on both the new technology and new food. In this case, there are those who can accept the technology, but would rather have real food. Nevertheless, there are those who are in total disagreement with the whole idea.

> Nice! But real food is always better! (Al Samiu Ahmed)
>
> You do but I want real food Ridwan Johari (Ying Siu Gurung)
>
> Simply too poignant to leave un-noted. (Erick Hill)
>
> These people were so preoccupied with this 'thing' they didn't even stop to think if they should invent this. (Muhammad Abdullah)
>
> Yes.....you Can take a good thing Too Far....□ (Joel Baxter)
>
> More pointless science (Marshall Tenbears)
>
> Waste of time. (Lee Bromz)
>
> Seriously what is the purpose of this?!□ (Viola Halas)
>
> Eating fake food, how is that fun? (Obleo Beck)

Philosophical aspects

Many of the viewers associate the concept with the idea of mixing realities, referring specifically to the movie, The Matrix. This could be due to the two main philosophical aspects of food consumption namely 1) the existence of multiple realities, and 2) the sociology of food. Virtual food opens the window to a new reality and adds more meaning to the existing perception of food. Moreover, this new type of food may get more acceptance than other suggested foods such as consuming insects as it comes with technology.

> Matrix within the matrix (Faux Real)
>
> "Why does everything taste like Chicken?" - The Matrix. (Lee B Langer)
>
> Reminds me of The Matrix (Ellen Leung)

Conclusion

Many studies had been conducted on virtual food (Gorini, Griez, Petrova & Riva, 2010; Narumi, Nishizaka, Kajinami, Tanikawa & Hirose, 2011a,b ,2012; Ranasinghe, Nakatsu, Nii & Goalakrishnakone, 2012) and the majority had focused mostly on the technological aspects. There is a paucity of empirical studies that have explored people's perception of consuming virtual foods. Hence, this study had attempted to fill that gap apart from contributing to the body of knowledge as it casts light on the public perception of the future of virtual foods. The other contribution of the paper lies in the methodological approach as the content of the data set was qualitatively analysed. Finally, this study changes our symbolic understanding of the meaning of food.

One of the most highlighted themes that emerged from the data set is the importance of conserving the future of virtual food not only for the tourism and leisure industry, but also for our daily lives. Many people were positive about the future of virtual foods as they believe it could be a solution for the future inhabitants of new planets, or that it may change our food habits in the future. The other significantly positive implication of virtual food is in the aspect of health whereby it can be used to solve issues such as hunger, obesity and other stomach disorders. The economic implication of this technology was also found to be positive as people no longer need to spend huge amounts of money for food products. However, several negative perspectives deemed this kind of project as a waste of resources and money which could otherwise be used for more practical endeavours. Health wise, some believe that virtual food could contribute to eating disorders or anorexia.

Finally, further research is needed to provide a more in-depth understanding of the consumption of virtual foods, by providing more details on the market segmentations and the validity of this idea.

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PART 4: FOOD AND CONSUMERISM

While food safety is still a factor present in the aforementioned discussions and essays, we can observe a growing concern for sustainable development and ethical food consumption. The long-standing contentious issue in consumption literature referring to the dialectics of consumption and identity formation (if not revendication) for post colonial countries is not as prevalent as it used to be - at least in this selection of articles. It could be coincidental or it may be interpreted as a sign of social change towards greater pragmatism and a heightened globalized sense of responsibility vis-à-vis the safe-keeping of our planet. As far as the future of consumption is concerened, we wish to refer again to the seminal paper of John Kearney (2010). John Kearney's review of food consumption trends and drivers studied among others trends and forecasts food consumption per capita across the globe. We could not help but notice that South Asia consumption's forecast in KCalories per person per day shows an incremental trend until 2050, which is much higher than the world's global average (Kearney, 2010: 2794). This exponential augmentation may have considerable health consequences but could also reflect a nutrition transition, especially in Southeast Asian countries. Populations in those countries undergoing rapid transition are experiencing nutritional transition. The diverse nature of this transition may be the result of differences in socio-demographic factors and other consumer characteristics. Among other factors including urbanization and food industry marketing, Kearney highlights that the policies of trade liberalization over the past two decades may have implications for health by virtue of being a factor in facilitating the 'nutritional transition' that is associated with rising rates of obesity and chronic diseases such as cardiovascular disease and cancer. We cannot disagree with Kearney when he asserts that future food policies must consider both agricultural and health sectors, thereby enabling the development of coherent and sustainable policies that will ultimately benefit agriculture, human health and the environment.

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CONCLUSION

There exist underlying currents that ran across all chapters in parallel to the diversity of topics discussed in this book. We feel it is now time to disclose the unsaid and critically discuss these implicit paradigms as a fitting conclusion. We refer here to the academic archetypes of globalization and post-colonialism - whether the former is an offspring of the latter is still a matter for debate in academia. Our interest is triggered by the manner in which food studies can eventually contribute to casting some light on these towering intellectual constructs.

Food often takes the pedagogical form of illustrating the globalization of cultures. Keri E. Iyall Smith begins her book on sociology of globalization (2013) with an American food metaphor. She comments the following:

> "Barbecue is popular throughout the southern United States, but the sauce varies from place to place. In eastern North Carolina and eastern South Carolina, sauce has a vinegar base, but farther west is has a tomato base. You can find the southern vinegar-based sauce in East Texas, but otherwise most sauces are tomato based, or tomato with molasses (Kansas city and Memphis). In this example, Texas appears to be a border in barbecue, with both southern styles and western styles mixing to create a unique diversity of barbecue offerings. There are different reactions to this mixing of styles from the two cores of barbecue 'purity' in the south and the west. Both regions prefer the distinct traits of the local sauces, but the mixing on the borders empowers people outside of the core their own definition of barbecue. While barbecue may not seem important in relation to cultures and globalization, it illustrates a cultural border, along with the hybrid mixture that occurs away from the core. The distance from the core can be measured by geography or by cultural difference"
>
> (Iyall Smith, 2013: 29-30)

The above barbecue sauce example is a true metaphor of cultural globalization, exposing the polar tension between cultural differentialism and cultural homogenization. We all agree that barbecue sauce is a kind of food. Having said so, what does it mean exactly when we write "food" in that context? Is barbecue sauce a food recipe, part of a cuisine (or culinary system)? A condiment? A commodity (ready-made BBQ sauce)? How can the idiom "barbecue sauce" express a "core purity" if the signifier is polysemic in itself? Isn't it strange that social science and humanities seem to be content with using such an imprecise term?

The answer lies with the status of food as an anthropological object. In his seminal work, "*Les Règles de la Méthode*", Durkheim coins the foundational concept of "social fact", which he defines in the following manner:

> "The term is generally used to designate all phenomena that occur within a given society… But for that matter, there are no human events indeed, so to speak, that cannot be termed as social."
>
> (Durkheim, 1967 [1894]: 95 – *our translation*)

A few paragraphs later, Durkheim comments:

> "Every individual drinks, eats, sleeps, reasons, and it is Society's own interest that these functions are being carried out regularly. If these facts were social indeed, sociology would have no object of its own, and its field would then merge into the ones of biology and psychology."
>
> (Durkheim, 1967 [1894]: 95 – *our translation*)

It is quite clear here that the founder of the scientific review "*L'Année sociologique*" attempts strategically to circumscribe the boundaries of the emerging field of sociology in France. According to Poulain and Paul-Lévy, the ambiguous Durkheimian position about food arises a few pages later (Poulain, 2002: 151 & Paul-Lévy, 1997: 99-100) when Durkheim writes "we can incidentally confirm the definition of social fact through a typical experience; it is sufficient to observe the manner in which children are raised (…). Very early in their life, we coerce them to eat and drink… at regular hours; we coerce the child to be clean, quiet, to obey; later, we coerce him to learn to acknowledge other people, to respect customs and propriety" (Ibid, p. 98 – *my translation*).

These two paragraphs are enough for the two social scientists Poulain and Paul-Lévy to spot the genesis of a "double tradition", an exclusivist *and* an inclusivist one, as far as food is concerned. Adding on to the thesis of the original sin, Poulain throws in other works of Durkheim where the latter wrote on the relationship between food and social identity in traditional societies, under the classic ethnological paradigm of "magic thought".

We tend to subscribe to the position of Poulain when he states that "magic thought" is also active in modern societies (Poulain, 2002: 153), but we also need to bear in mind that Durkheim was a man of his time, and his primitivist and orientalist posture had been shaped while the French colonial empire was at the zenith of its arc. It was certainly morally unthinkable, in a typical orientalist (Said, 2005) fashion, to attribute any mystical sense of "*mana*[1]" to French society - self-defined as rational – that was supposed to bring civilization to "less developed" societies.

Coming back to the original divide, we posit that both Poulain and Paul-Lévy may have over-induced the formation of a "double tradition" for probably different reasons. If we read Durkheim's first statement again carefully: "Every individual drinks, eats, sleeps, reasons, and it is Society's own interest that these functions are being carried out regularly", we may want to pause on the word "eat". Here, Durkheim describes obvious biological functions, verified by the sequence of terms including "drinks", "eats" and "sleeps". Another way of looking at it is to question the intentionality of the usage of the verb "to eat". In British-English, people eat, and animals feed. When you feed a human being, the described process remains clearly biological: "you should feed your baby… I believe she is hungry", or: "during that famine, people fed only on roots and tubers". However, in popular language, "to eat" and "to feed" can be used interchangeably. When a mother wants to enrich her toddler's vocabulary, she asks the child "what does this animal *eat*?", blurring boundaries between humanity and animality. In our case, what Durkheim meant was "*feeds*", as he was obviously referring to biological functions. If we use the correct verbs, everything becomes clearer. You eat at home (under family's rule), or you eat out in places of sociability. You feed to sustain yourself. Feeding is biological while eating is social.

It could be that the great Durkheim himself succumbed to a slight imprecision in the choice of his vocabulary, as he thought food as a futile and primitive research object. After all, the cause of the original divide might have been only semantic.

What we infer from the opposition "feeding-biological function" versus "eating-social" is imprecision due to the prevalence of one generic term ("eating") above the other. Can the same reasoning be transferrable to the usage of the word "food"?

In one chapter of a relatively recent book entitled "Food and Globalization", the food anthropologist Richard Wilk discusses the cultural and economic significance of European food export to the colonies (Wilk, 2008: 93-108). His usage and manipulation of the term "food" constitutes a case in point. After setting the décor in Belize (former British Honduras), Wilk narrates the history of specific products when he uses the term "food" in lieu of commodities and "processed foods", as the latter is a product of the food manufacturing industry (Wilk, 2008: 96-97). In the following section termed "Branding", Wilk uses the term "food" or "foods" interchangeably with locally-produced trading "commodities", whereas imported products such as salt pork and flour were renamed "foodstuffs". In a subsequent section entitled "Culinary diglossia", Wilk shifts to another register, intensifying the usage of the term "cuisine" that he aptly approaches as a "cultural system" (Fischler, 1990), even though he mentions anecdotally that the politics of eating "local food" during wartime austerity (Wilk, 2008: 100) seems to refer to local crops and cattle, but remains slightly unclear in terms of their culinary accommodation (colonial vs. local) and vice versa as far as imported products are concerned. However, Wilk's conclusion beautifully wraps up this critical discussion as it portrays eminently ontological similarities between language and food as grammar of a culture. Wilk concludes his essay in a form of classic academic apology, stating that he has "only discussed a few of the close connections between the economy of food supply and the culture of cuisine in this corner of the colonial system." (Will, 2008: 104). While the semantic boundary is impeccably drawn, the opposition of the two terms opens a new debate more generic and scientific in nature, which is not contained within the framework of Wilk's article. The true question refers to the immanence of a "cuisine" - whether the latter is understood as a culinary system, and therefore a cultural system (Fischler, 1990). The term cuisine is problematic if we refer to its early anthropological acceptance as conceptualized by Claude Levi-Strauss in his seminal paper entitled "The Culinary Triangle" (Levi-Strauss, 1965) and its subsequent productions in the field of food anthropology, which helped to shape the foundations of the structuralist movement. When Levi-Strauss studied traditional Amazonian social groups, he closely studied communities where the concept of a culinary system gave immediate entry to a defined cosmology, and therefore to a specified cultural system. Today, with virtually no territory left unexplored, it is extremely rare to uncover communities that live in total autarchy and are impermeable to the forces of globalization.

The question at hand is arguably epistemological: does the concept of cuisine, in its anthropological acceptance, still make sense in a globalized world where "plural eaters" (Corbeau, 2001) have become the norm?

The answer is, well… it depends. It depends whether you look at a "cuisine" from an ontological perspective or as a methodological tool. We shall use two brief examples to illustrate our conceptual framing.

If you approach a cuisine ontologically as a holistic culinary system that gives the keys to decipher the whole cultural system, you may limit yourself to studying isolated communities such as the Bugis ethnic groups in Sulawesi, an Indonesian island east of Borneo. The dining etiquette of the Bugis is extremely revealing, and says a lot about their cosmology and social organization. Traditional Bugis houses are usually spatially divided into masculine and feminine sides. For commensality, gender-mixed space can exist but only when receiving external guests. The role of the host is dual: he (he is generally the patriarch) serves at the same time as master of ceremony whilst being extremely devoted to his guests, displaying refined social etiquette as sign of the most affable hospitality, which is in turn symbolic of his social status. At the occasion of festive or ceremonial commensality, the house may host "invisible commensals" (Pelras, 2010: 278) such as *dewata* (ancient divinities from the pre-Islamic pantheon), *to-riolo* (literally people from olden days, understand "ancestors"), as well as *to-hâlusu'* (subtle beings) who belong to this world but live in another dimension. Some of these entities are tutelary beings and act as the guardians of the house (Pelras, 2010: 278-280).

This kind of ethnographic account used to be the bread and butter of anthropologists; such a fieldwork is extremely challenging to come by nowadays.

Let us look now at another space at the opposite end of the anthropological spectrum, which could be termed a "non-place" (Augé, 1995) such as an international hotel, we may then use the "cuisine" as a methodological instrument. Let's take the example of a French-style omelet served in a coffee house of a five-star hotel in Kuala Lumpur, Malaysia. The scene derives from an ethnographic account experienced by one the editors in 2010 (see Olmedo, 2015). In this scenario, an Executive Chef (a French citizen) trains a Malaysian cook (of Sino Kadazan ethnicity) to prepare an omelet in the French culinary style. The training sequence is classical, borderlining military fashion: quick demonstration – slow demonstration with mirror-execution, then autonomous execution. The Malaysian cook endeavours in the latter and produces a perfectly cooked and well-shaped omelet. The Executive Chef tastes it and the comment comes out, cold as ice: "not enough salt." From our observation in that particular fieldwork, all subsequent attempts will end up with the same comment after tasting the outcome. From empirical observation, the non-seasoning of eggs has been a constant practice not only in that specific hotel, but also in similar ones throughout Malaysia. This is where the construct of cuisine as methodological tool comes in handy to test out theories of cultural core versus periphery of food acculturation versus food creolisation.

In that sense, food and cuisine are not antithetical but the latter can be an analytical instrument at the service of the former.
To conclude, we believe that the term "food" is not merely polysemous or convenient for its semantic plasticity. In our opinion, "food" goes epistemologically beyond the anthropological boundaries of a "total social fact" (Mauss, 1924). Food is a systemic construct, and as such, it enables quintessential transdisciplinary investigation: a postulation on which this book has been crafted. We do confess that we are not at the stage yet of devising a food studies' manifesto, but we do call for passionate minds to help us shape the contours of the future of food studies in the Asia-Pacific region.

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This collective book marks the modest beginnings of a network in Food Studies. This newcomer, namely "The Asia-Pacific Network of Food Studies (APFSN)" was set in early 2016 with the ambition of casting new light on food-related issues in the region. Food Studies is relatively new in Asia Pacific, where the most prominent and established food networks pertain to one academic field only (i.e., nutrition, applied science, dietetics, food technology, food security, etc.). As an interdisciplinary field, Food studies endeavours into the critical examination of food and its contexts within science, arts, applied sciences and other disciplines.

This book captures papers from both junior and senior food scholars who met in Bangi and Kuala Lumpur, Malaysia, in November 2016, for the first International Food and Society Conference. Their academic background diversity ranges from sociology and anthropology to social history and political science, notwithstanding chemistry and nutrition, thus making this conference a convergence of distinctively shaped minds from about twelve different countries. The real contribution of these conference proceedings lies in their heterogeneity: thanks to the work of the editors, one can witness here the delineation of an emerging research agenda for food studies in Asia Pacific.

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