

Abstract

As an emerging economy, food waste has become a hot topic in China within the last two years because of increasing appetites and shrinking landfills. Although there are an increasing number of studies on food waste in China, there is a lack of research into the social and cultural drivers that motivate food-waste creating behaviours. This study is an ethnographic exploration of Chinese attitudes towards food and food waste, with the objective of uncovering some of the key values and beliefs that create food waste. This study is also a first step in addressing the literature gap on the topic. It was found that Chinese cultural values that motivated food waste creation were linked to a deep culinary history, Confucian teachings, and social and economic reform. In order to guarantee the success of pilot food waste programs, education and public outreach are key to changing behaviour.

Link to documentary: <https://vimeo.com/126225020>

Introduction

Like elsewhere, in China food is central to the creation of a sense of cultural identity, and can serve as a window into how people think, behave, and react (Lee, Lusk, Miroso, & Oey, 2013; Veeck & Burns, 2003; Zhang, Dagevos, He, van der Lans, & Zhai, 2007). At the same time, Chinese cultural identity has been recently dramatically influenced by broader socio-economic developments. Changes in China's government policies over the past 50 years have "socialized parents and their children with conflicting ideologies" (Hung, Gu, & Yim, 2007, p. 837) and created diverse generational cohorts with different values and beliefs. For the first time in history, the mix of Chinese citizens included those who grew up during the nationalist Mao era, those who got rich during the Deng Xiaoping era, those with no siblings, those born in the rural areas but live in cities for work, and those born into luxury. In the context of consumer food waste, China's economic boom has increased the standard of living, leading to new consumer demands (Lee et. al. 2013) but also "ballooned" the quantity of food wasted in restaurants by consumers (Liu, 2014).

These changes in the food industry and the resulting volume of food being wasted have not gone unnoticed in China. Starting from 2013, in an attempt to crack down on waste, the Chinese Government announced sweeping reforms including a ban on extravagant banquets (Gu, 2014; Magistad, 2013). At the same time, the "Clean Your Plate" campaign started as a grassroots movement to encourage Chinese citizens to order less and leave clean plates at the end of a meal (Magistad, 2013). Frugality was slowly making a comeback as a positive Chinese value

(Surowiecki, 2009), harkening back to state-constructed social movements in the Mao era but only this time, actively supported from the bottom up.

In parallel, researchers (Chinese or otherwise) have recently turned their gaze towards the subject of food waste in China. Published studies in English have mainly focused on quantifying the problem as a downstream urban policy issue in the context of technical urban challenges that needed solutions (Guo, Sun, Sun, Lu, & Wu, 2014; Huang, Wang, Dai, & Harder, 2013; Liu, 2004; Wen, Wang, and De Clercq, 2015; Zhuang, Wang, Wu, & Chen, 2007). These studies provide a general understanding of the scope of the issue in Chinese cities, where food waste could range from consisting of 35% to 75% of the waste stream (although most English news and internet sources cite 70%), as well as reporting on lessons learned from pilot food waste recycling programs. These studies fall into Moore's conceptualization of waste as a manageable object, considering food waste as "open to technical and...institutional solutions" (Moore, 2012, p. 786), but do not recognize the influence and relationship that human actors have on the food waste produced. Furthermore, a "serious lack of social initiative" has been identified as one of the key challenges to successful urban food waste recycling in China (Huang et. al., 2013) hinting at the need for more qualitative studies on behaviours that create food waste.

Examining the issue of food waste through a social lens is not unique or new. As one of the early adopters of national food waste policies, studies done in the United Kingdom offer valuable insights into the efficacy of a social perspective on studying food waste drivers in order to build successful food waste reduction

programs. A literature review of recent qualitative food waste studies conducted in the UK revealed that household food waste was “a result of the social and material conditions in which food is provided” (Graham-Rowe, Jessop, Sparks, 2013, p. 16), hinting at broader issues at play than simply environmental behaviour. Although Chinese and English cultures differ in many aspects, the approach to understanding the social and material conditions can be cut from the same cloth.

Armed with two cameras, a voice recorder, notebook, a handful of pens, and an empty stomach, I went to China to conduct an ethnographic exploration of Chinese attitudes on food waste. In an attempt to address a research gap on the social side of the food waste equation and answer the question, “how do Chinese feel about food waste, and what are the motivations behind food waste creation,” I observed ordinary peoples’ actions and reactions, listened to how they spoke about food waste, and made note of how they interacted with each other and with food waste. These observations allowed me to piece together the story of food waste in Chinese cities from lived experiences, which consist of a combination of patterns of thoughts that are made up of values, beliefs, and culture, with hopes to improve the effectiveness of social programs targeted at reducing food wasted in Chinese cities.

Method

This visual ethnography study combined a phenomenological approach with visual communication in order to explore and share, in their own words, how ordinary Chinese interact with food waste. It was necessary to observe and interview participants in seemingly mundane settings such as the vegetable market,

restaurants, and home kitchens, in order to understand “how people experience their social and material environments” (Pink, 2007, p. 28). The focus on ordinary people in this study allowed for the voices of those seldom heard in the discourse about food waste to be captured.

Unstructured interviews were conducted with a total of twenty five participants, individually or in groups, in a variety of settings. They were recruited through an opportunistic and snowball sampling approach in Shanghai, Hangzhou, Beijing, Chengdu, and Hong Kong. Although there was an acceptable distribution of age and demographic in the group of participants in order to provide an illustrative sample of the variety of predominant themes in Chinese food waste culture, one of the limitations of this study was that a majority of the participants were female. It is important to note that food waste attitudes may differ between males and females and in some cities, as gender roles differ across geographic regions in China.

Following each interview, I made detailed field notes which were used to highlight emerging themes, adjust questions for future interviews, and make note of my own reflections. I transcribed recorded conversations upon my return to Canada, and compared with emergent themes highlighted in field notes. Additional research was done to follow up on the themes and checked against existing theories from social research on waste management, and theories on food and consumer behaviour. My reflections through the analysis of themes created the structure and form of the video documentary that came out of this study, and I was able to use the recorded images and voices to tell the story of food waste attitudes in China.

Data and analysis

In the production of food waste, three key themes emerged that illustrate the Chinese attitudes that drive the creation of food waste, which have roots in cultural values planted by tradition, Confucian teachings, and social reform.

1. Chinese are 'Fresh-obsessed'

Across all encounters with interviewees in all cities, the obsession with freshness was common regardless of age, geography, gender, and economic circumstance. Shopping for ingredients was a daily activity in an attempt to eat only the freshest foods.

The culinary reverence for fresh ingredients is reinforced by agricultural reform, allowing for massive quantities of fresh vegetables being delivered to neighbourhood wet markets daily (Zhang & Pan, 2013). Chinese residents also equate freshness with naturalness and wellness (Lee et. al., 2013), while a hot home-cooked meal evoked feelings of “warmth, vitality, and hope” (Qin, 2014, p. 38). Shopping for vegetables every day not only provided residents with the “freshest possible meat and vegetables” (Veeck & Burns, 2003, p. 646), but also provided opportunities to socialize with neighbours and vendors in order to maintain relationships (Bingyuan, 2013), an important element of Chinese society.

2. Doggy bagging is for the poor

Opportunities to create food waste were much more pronounced in restaurants than at home. Whenever I ate at a restaurant, I observed between 20-50% of food being left on the table. There was a tendency to order too much, and it was evident

when I ate with locals in Shanghai, Hangzhou, Chengdu, and Beijing, that nobody brought home a doggy bag.

The disdain towards thriftiness can be attributed to China's consumer culture that has been rapidly changing since economic and social reforms during Deng Xiaoping's time (Notar, 2012). Although there is now a huge disparity between high and low income populations in China, thanks to global economic forces and combined with deeply rooted Confucian values that place group benefit over individual benefit, Chinese across classes "equate consumer activity with pride and emancipation," (Notar 2012, p. 133) glorifying wealth and consumption. At the same time, those entering the work force during Deng's urban economic reforms would well remember the famine of 1958-61 which could have reinforced the linkage between over-ordering and being a good host (Magistad, 2013), creating a new avenue for conspicuous consumption through food.

3. Leftovers – to eat or not to eat

Amongst participants, those who were older or from the North, were more open to saving and reheating leftovers from home cooked meals, while younger Chinese and those from the South were more likely to deem food inedible as soon as the meal is over.

In the south, food is meant to be eaten without refrigeration (Zhang & Pan, 2013), harkening back to the obsession with freshness. Furthermore, Chinese home cooks value fresh ingredients because freshness is seen as a marker for safety, security, and naturalness, and the ability to provide home cooked meals was considered "an act of caring and providing for family" (Lee et. al., 2013).

It is worth noting here that infrastructure challenges are also reinforcing food waste behaviours in college campuses. At Zhejiang University, I observed students discarding about 10-20% of their lunch from the canteen. Indeed, it is estimated that 30% of canteen food is discarded on campuses across China (Liu, 2014). One of the reasons is that students do not have refrigerators or microwaves in their dorm rooms (Wilkinson, 2013), and at Zhejiang it is actually forbidden to cook inside the dormitories.

When it came to the management of food waste at the personal level, it was possible to categorize the range of behaviours using Moore's categorization of waste (2012) to understand the possible motivations.

Waste as governable object

In Hangzhou, and in fact many large cities in China, food waste can be separated from the waste stream to be composted on a large scale. Mr. and Mrs. Wang receive thirty free composting bags per month and can acquire more if needed. Kitchen waste and leftovers are placed into special neighbourhood receptacles that are managed by the city's waste management company. For citizens who are able to enjoy this service, food waste is no longer their problem once it enters the waste system; it becomes the state's responsibility. This point of view is predominant amongst modern and affluent city dwellers, which presents a political challenge since there are multiple stakeholders at play (Huang et. al. 2013). A participant at the Chinese Association for Urban Environmental Sanitation Workshop on Food Waste in Chengdu (2014) pointed out that one of the main challenges in China was that policies were not aligned across agencies, which sent a confusing message to

citizens. The weight placed on strengthened food waste policies in China in the context of governmentality can be summarized through Moore's description of Dominique Laporte's work: "he argues that the state as keeper of the Freudian triad 'cleanliness, order, beauty' extends its power by institutionalizing sanitation and hygienic practices. The more complete the institutionalization, the more totalitarian the state. Waste, as governable object, helps to create the power it becomes subject to." (2012, p 791).

Waste as risk

As explained above, one of the key reasons why Chinese tend not to eat leftovers was food safety. Wen, Wang, and De Clercq (2015) pointed out that a key challenge in China was that Chinese consumer tastes were changing at such a rate that the infrastructure to deal with the residual waste could not catch up, creating a public health safety issue. As risk, waste "focuses on the modernization through which society has created a number of quasi-objects beyond its technological and political control" (Moore, 2012, p. 789). As demonstrated by the contrast between older participants and younger participants in terms of how they viewed food waste, that leftovers were considered waste, and therefore a health risk, was a creation of modern Chinese cultural values.

Waste as a resource/commodity

Few participants recognized waste as a resource or commodity. Ms. Yu from Beijing (40's professional) learned from an online grassroots group how to compost at home, and so she regularly saved coffee grounds from her workplace to mix with kitchen waste. Mrs. Huang from Shanghai described at length the various ways to

save rice and grains learned from her youth on the farms, by drying them in the sun or cooking them into cakes. Mrs. Huang and Ms. Yu also made note of the medicinal qualities of certain ingredients, respecting food as a nourishing resource. Viewing waste as a resource is said by Grille to have the power to “demonstrate the material and social consequences of one type of waste material metamorphosing into another as it traverses the circuits of production, distribution, consumption, reclamation, and annihilation” (Moore, 2012, p. 785). Mrs. Huang’s traditional views and Ms. Yu’s modern learning combined form a promising view to the future where old and new can coexist in an ecologically sound manner, blending the definition of waste and resource.

Conclusion

From my discussions and observations with ordinary Chinese, I discovered that attitudes towards food waste are influenced by a number of complex and interrelated concepts, which are shaped by Chinese philosophy, traditional habits, and social and economic reform. The importance of providing freshly made home-cooked meals to family takes top priority in the minds of those who I spoke to. With the added layer of conspicuous consumption, eating out at restaurants poses a more challenging food waste problem than eating at home.

Through literature review and analysis, I have also found that there is a lack of research into the cultural and social influences on behaviours that create food waste. Huang (2013) recognizes that the ultimate solution for food waste in China must “eventually come from reduced dependence on material items, through

lifestyle optimization for sustainability” (p. 110), hinting at the need to address social motivators for the creation of food waste.

Chinese food culture is still evolving in China, but where will we land? This study only scratched at the surface of the values, beliefs, and the larger context of economic and institutional framework that shape how Chinese consumers interact with food. Future studies should expand upon the social studies approach to uncover the systematic and material influences on the production of consumer food waste in restaurants and in the home, using a variety of research methods including ethnography and critical discourse analysis.

When asked what they thought was necessary in order to improve the food waste situation in China, participants resoundingly said education. Pockets of environment and sustainability non-governmental organizations all over China are already looking towards education as a way to influence ecologically sound behaviour.

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