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# Food policy and the unruliness of consumption: An intergenerational social practice approach to uncover transforming food consumption in modernizing Hanoi, Vietnam.

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#### ABSTRACT

Globally, food policies strive to steer citizens in specific directions, however consumption remains largely unruly. This is also the case in Hanoi. Vietnam, where the food safety driven supermarketisation policy is only minimally successful in diverting consumers from traditional markets. Previous research demonstrated that low-income urbanites do not shop at supermarkets and maintain their minimally adequate diet quality through market shopping. Nevertheless, shifts in diets are occurring. The traditional local plant-based diet, which may be considered a 'planetary health diet', is shifting towards an increased uptake of animal proteins, ultra-processed foods and sugar sweetened beverages. This begs the question of how dietary shifts are shaping up. This paper aims to uncover emerging dietary trends by understanding the more hidden dynamics of food consumption in the everyday life of low-income urbanites. We use an intergenerational social practice approach to household food security, focussing on food access and utilization in balancing diet quality and food safety priorities within the context of Hanoi's changing food retail environment. Our qualitative methods, consisting of multi-generation household interviews and shopping trips, uncovered: (i) younger women prefer traditional food acquisition and preparation practices for modern convenience; (ii) the changing food environment is mitigated by informal relations and networks that are increasingly online; and (iii) fast-food is entering the home through pester power. Our results demonstrate food security is a dynamic interplay of food environments, food acquisition and preparation preferences, and creative agency, wherein food security takes different forms within changing contexts. We discuss the usefulness of our approach and recommend policy makers consult with populations directly impacted by planned food policies to ensure they are relevant and leverage the creative agency demonstrated by this population.

#### 1. Introduction

"In the past we didn't have enough to eat, but we didn't have to worry about food safety. Nowadays food is available everywhere, but it is also less healthy, and we have to worry whether the food is safe or not." (ID99-R2)

What constitutes food security is subject to change over time. Definitions are sensitive to interpretations, but overall becoming increasingly complex by integrating conditions, such as 'preferences' and 'social acceptability' (Kennedy, 2003; Gibson, 2012). Moreover, in light of global resource depletion, climate change and world population growth, definitions are linked with a need to shift towards more

sustainable diets (Swinburn et al., 2019; Willett et al., 2019). As expressed in SDG 2, meeting food and nutrition security is interlinked with how to produce, share and consume food sustainably. Although food security has long been primarily a rural agenda focused on undernourishment, rapid urbanization and food-system transition present urgent challenges to providing safe, nutritious and sustainable food in cities (Tefft et al., 2017). Emerging economies are experiencing this most intensely, particular in Asia, where the urbanization of poverty coincides with a rapid rise in non-communicable diseases (NCDs) (Boonchoo et al., 2017; Do et al., 2017; NCD-RisC, 2017). Urbanization and modernization are leading to fundamental lifestyle changes, including shifts in household composition and occupation, and

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subsequent shifts in cultural meanings and understandings of food consumption. Such developments motivate the call from practitioners for a shift in SDG2 orientation to include the urban domain (BCFN/MUFPP, 2018) and wider concepts of malnutrition with a 'greater focus on overweight and obesity' (FAO et al., 2019).

Transforming food environments are drawing global attention for their influence on diets (UNSCN, 2019). In the context of emerging economies, modern shops like supermarkets replace traditional markets. This 'supermarketisation' (Reardon et al., 2005) is associated with an increased consumption of un-healthy foods such as processed meat and sugar sweetened beverages (Kelly et al., 2014; Leite et al., 2018; Santos et al., 2019). Moreover, socio-economic disadvantaged populations are at highest risk of obesity and are disproportionally affected by NCDs (Branca et al., 2019).

In Asia, food safety concerns regarding the agrochemical and bacteriological safety of fresh foods (Havelaar et al., 2015; World Bank, 2017) are driving food retail modernization policies (Coe and Bok, 2018; Ha et al., 2019; FAO et al., 2019; Ortega and Tschirley, 2017). Vietnam provides a contextual case-in-point where citizens recently experienced food abundance (improved food security in terms of food availability), whilst simultaneously confronted with food safety hazards (impaired food security in terms of food quality) (Ehlert and Faltmann eds., 2019; Nguyen-Viet et al., 2017; Raneri et al., 2019). The government of Vietnam explicitly aims to improve food safety through a combination of legislation and food retail modernization.<sup>2</sup> Supermarkets are employed as a vehicle for improved food safety, with an expectation that food safety management systems and food hygiene standards implemented by companies result in accountability for any food safety issues - a much harder thing to track in traditional markets (Reardon, 2006; Wrigley and Low, 2010). Vietnam's supermarketisation policy is set to marginalize and close traditional markets from 67 in 2010 to 14 in 2020 (MoIT, 2009), and instead promote supermarket development from 24 in 2010 to 1000 in 2025-30 (HIT, 2014). The consequent reduction in formal markets is yielding undesirable effects, such as driving low-income urbanites (who do not access supermarkets) to contested informal self-organized street street-markets, and prompted a debate in both media and academic circles on the advancement of supermarkets and the preservation of markets (Eidse et al., 2016; Daniels et al., 2015; Giddings, 2016; Wertheim-Heck et al., 2015). This transformation is contributing to increased availability of ultra-processed foods associated with increasing rates of obesity and NCDs (Baker and Friel, 2016; Monteiro et al., 2016).

This paper studies household food security, focussing on food access and utilization in balancing diet quality, nutrition and food safety within the transforming retail environment of Hanoi, Vietnam. We expand on previous research that examined the impact of retail modernization on the diets of low-income urbanites through their food shopping practices in Hanoi, Vietnam (Wertheim-Heck et al., 2019). Although dietary quality was expected to be influenced by geographical proximity to different types of retail outlets the study revealed that retail proximity did not equate to access – other drivers were stronger. Supermarkets were not (yet) utilized in the well-established shopping practices of low-income urbanites even when very close to their homes (<300 m)

and contributed to less than 8% of total food consumed, and convenience stores to 11%. With 70% of foods consumed originating from traditional markets, these continue to appear crucial in maintaining minimally adequate diets that are still limited in ultra-processed food consumption and dominated by patterns of fresh foods. Despite food policies striving to steer citizens in the direction of supermarkets, consumers persist to shop at traditional markets and mitigate the absence of formal markets, with informal self-organized street markets. Given this reality, the increased presence of supermarkets does not (yet) significantly contribute to the dietary intake of low-income consumers in Hanoi.

Nevertheless, shifts in diets are occurring. The local plant based traditional diet, which may be considered a 'planetary health diet' (Willett et al., 2019) is shifting towards an increased uptake of animal proteins, ultra-processed foods and sugar sweetened beverages (Baker and Friel, 2016; Hansen, 2018). Such a diet, together with increased prevalence of the triple burden of malnutrition, non-communicable disease and reduced physical activity, is characteristic of the nutrition transition well underway in Vietnam. Despite the country overall making significant progress in decreasing rates of undernutrition, the double burden of malnutrition is rife, with obesity and NCD prevalence particularly increasing in cities (Jensen et al., 2018; Le Nguyen et al., 2013; Mai et al., 2020; Minh Do et al., 2018; Nguyen and Hoang, 2018). Although undernutrition rates in Hanoi are still high, with a quarter of children under 5 stunted, and 15% wasted (NIN, 2014), 36.2% of children (5-12 years old) living in the inner-city districts are severely overweight or obese and increasingly also affecting lower-income populations (Pham et al., 2019). This begs the question of what are the major drivers for dietary and nutrition shifts among low-income urbanites when it can't be ascribed to shopping practices following the pro-supermarkets retail modernization policy and when low-income urban women seem to still maintain a relatively traditional diet? And what does this mean in terms of food security? To uncover emerging trends and analyse the potential implications for health and sustainability, there is a need to study the wider social and cultural influences on food consumption practices.

The aim of this paper is to uncover emerging dietary trends by understanding the more hidden dynamics of food consumption in everyday life. We employ a practice theoretical perspective, which informs our intergenerational household approach. Combining past and current food shopping practices within the dynamic food retail environment of Hanoi, we demonstrate how food security (access, availability and utilization) is dynamic, whereby what is preferred and socially acceptable is changing over time. Finally, we discuss how food security can take different forms within changing contexts and highlight the importance of citizen consultation to ensure the relevance of policies in everyday life and to leverage citizen agency in food system transformations.

#### 2. Applying social practice theory to uncover emerging trends

The assumption that consumers can easily be 'steered' with food retail environment interventions - like supermarketisation - to deliberately shift shopping practices, overestimates the power of structure and underestimates the importance of wider contextuality and creative agency of urbanites in co-shaping their food environment. Everyday food consumption can neither be regarded as simply an expression of individual choice, nor as the mere result of food supply infrastructures (Hindess, 2016; Winson and Choi, 2017). To obtain nuanced and

<sup>1</sup> The United Nations System Standing Committee on Nutrition devoted its annual flagship publication this year to the relation between food environments and food choices.Policy documents include: (i) Law on Food Safety No.5/QH12/2020; (ii) Prime Ministerial Decision No. 559/QD-TTg)51 on the development of market places 2004-2010; (iii) Decision 146/2006/QD-UB on incentive mechanisms for supermarket construction in Hanoi by the Hanoi People's Committee; (iv) Decision 99/2008/QD-BNN by the Viet Nam Ministry of Agriculture and Rural Development (MARD) on requiring all foods entering modern retail outlets to possess a certificate issued by official government authorities verifying that the vegetables have been produced in accordance with national regulations on safe vegetable production.

<sup>2</sup> The remaining 11% of the food consumed originated from a wide variety of sources, ranging from dedicated safe food stores such as green grocers, bakeries and butcher shops to sources in the countryside and home gardening.

<sup>3</sup> In Ho Chi Minh, a similar trend is seen, with rates of overweight and obesity of up to 60% for primary school aged children, presenting still with prevalence of undernutrition in up to 10% (Mai et al., 2020)

<sup>&</sup>lt;sup>4</sup> All original data are available through Harvard/Bioversity International Dataverse: https://dataverse.harvard.edu/dataverse/RetailDiversity4DietDiversity.

contextualize understandings of food consumption and dietary change, social practice theories (SPTs) offer an alternative perspective.

SPTs are widely deployed in studies of (sustainable) consumption, ranging from mobility to energy consumption and food (Sahakian and Wilhite, 2013; Neuman, 2018). SPTs open up the routine, taken for granted, and contextual nature of action, in which consumption is neither regarded as the expression of free-will, nor the result of systems of provision, but rather focuses on the reciprocal relation between structure and agency beyond discursive action. SPTs shift the unit of analysis away from the individual to recognizable practices, like the routine of shopping for food. Referring to the plural notion of practice theories, indicates it is a cluster of theories with variation in highlighting structure (Shove and Trentmann, 2018) or agency (Warde, 2016). This study highlights the human agency dimension of low-income urbanites practicing food consumption in interaction with the changing food retail environment of Hanoi.

Deploying a practice theoretical perspective, we place food consumption in the wider arena of everyday life and put the dynamic relationship between low-income urbanites as skilled and competent social beings and the dynamic Hanoi food environment at the centre of research (Spaargaren et al., 2016). In this study, shopping for and consumption of food within the household are approached as embedded within activities that constitute everyday life. Building on SPTs of consumption, our conceptual model does not limit a direct causal relation between diets and food retail environment but incorporates the logics of everyday life (Fig. 1). This study is part of a sequential quantitative-qualitative mixed method research design, in which this qualitative data collection serves to deepen previous quantitative insights for an in-depth exploration of underlying logics and influencing factors; gaining insights on logics and patterns of food consumption practices of low-income households within the organization of everyday life.

We deem SPTs' informed approaches instrumental in casting our view forward. It enables us to uncover emergent and sustaining practice elements and therewith shining light on probable trajectories from past to future. We examine shifts in food consumption with a focus on the home environment by generating relevant contextualized, qualitative, information on the urgent issue of dietary shifts. The main hypothesis is that the organization of everyday life, including food purchasing and food preparation, is importantly shaped by lifestyle changes within wider societal developments of urbanization and modernization. This study explores the dynamics between changing food retail environment and lifestyles with embedded practices. Focussing on trajectories of change and the sustaining and newly emerging elements in household food consumption practices within a changing food retail environment, we explore the shifting food security dimensions of (habituated) food preferences and socially accepted (routinized) food ways.

#### 3. Methods

In this study, we depart from Schatzki's description of practices, "temporally evolving, open-ended set of doings and sayings linked by practical understandings, rules, teleoaffective structure, and general understandings" (Schatzki, 2002, p. 87). With practices essentially consisting of 'doings' - performed activity - and 'sayings' - referring to shared meanings associated with the practice -, we used a qualitative mix of methods by combining 'sayings' through interviews, with observations of 'doings' through household visits and shopping trips. With the aim to offering foresight in the probable development of food consumption practice trajectories we deploy an intergenerational approach to uncover shifts in lived experiences of the changing food environment across time as evidence for future orientation. We focused on multi-generation households for gaining insights on the reasoning and patterns of food consumption practices within the organization of everyday life and specifically also capturing intergenerational household dynamics and perspectives in a changing food retail environment.

All data were collected in the period April–May 2018.

#### 3.1. Participant recruitment

The population studied was a subsample from the previously conducted household survey (N = 400), for which sampling is described elsewhere (Wertheim-Heck and Raneri, 2019). Out-off the original sample (N = 400), 35 households were purposively selected and invited to participate based on variation in age and household composition (2 generations of women above 20yrs of age living together diagnostics (the main respondent) and their mothers (in-law)) and in food shopping practices (frequency, moment and retail channel). Finally, 14 multi-generation households, (28 women) participated in this study (14 households uncontactable, 7 households refused due to time-constraints). In our results section, we refer to participants by their ID from the original sample, R1 refers to the main respondent and R2 to the mother (in-law).

#### 3.2. Data collection

Data were collected in Vietnamese, translated into English (incl. control translation) and categorised along a-priori defined code categories in MS Excel, adding more specific sub codes inductively. To avoid potential language bias, we didn't use a coding program, but went through the side-to-side Vietnamese -English transcriptions manually. To mitigate researcher bias we involved multiple investigators during t coding and interpretation.

#### 3.2.1. Home-based interviews

Before starting the interview, the main respondent received the interviewer and provided a 'tour' of cooking and eating space(s) within the home. Observations regarding the home environment relevant for understanding the food consumption practices were recorded in field notes.

Interviews were multi-generational and dyadic - the dyad being the main respondent and her mother (in-law), to facilitate the exploration of complex perspectives (Eisikovits and Koren, 2010). This was implemented to explore intergenerational dynamics, contrasting feelings, perceptions and opinions related to changing food practices and shifting diets. Although allowing for interactions, we started the interview with the main respondent and followed with the mother (in-law). A semi-structured interview guide was used to discern patterns of change and variation in performance capabilities and how shifting meanings of food influence food choice between generations (SI-1 for full interview guide). (Fig. 2).

In interviewing the older generation, we deployed a life history/cycle approach to understand the trajectory upon which food consumption practices have travelled to reach its present routines; capturing lifestyle events and changes in the food environment to uncover food consumption practice trajectories across time and their sustaining elements.

#### 3.2.2. Shopping trips

The main-respondent was joined during a routine shopping trip; delivering observational insights on the actions and decisions 'from home – back to home' to contextualize and provide further depth to understanding everyday practices. During different stages of the shopping process, the 'doings' of the respondents were intercepted for clarifications to uncover meanings, experiences and views of respondents.

<sup>&</sup>lt;sup>5</sup> In Vietnam the traditional family is an extended household of multiple generations, mostly consisting of parents living-in with their adult children. (General Statistics Office of Vietnam: www.gso.gov.vn).

<sup>6</sup> The period 1975 (from reunification and collectivization) to 1992 (de-collectivization and export orientation) was characterised by poverty and food shortage, culminating in the famine of 1986-1988

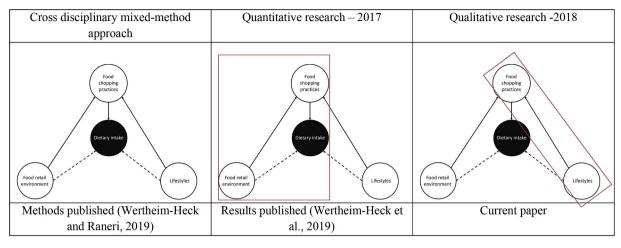


Fig. 1. Cross disciplinary nutrition and social practice conceptual framework with a sequential quantitative-qualitative mixed method design.

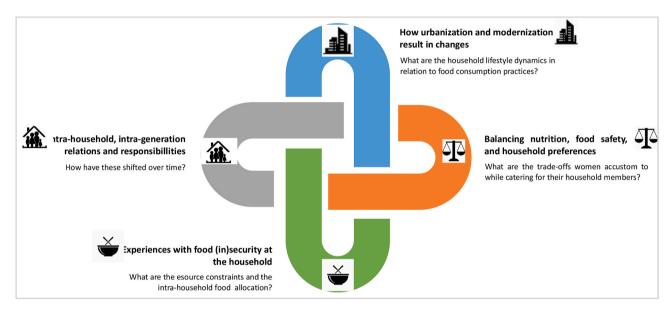


Fig. 2. Main inter-connected themes discussed in semi-structured interview.

The activities and explications were recorded in logbooks and coanalysed with the interviews.

#### 4. Results

Our research provides insights into low-income households' food consumption practices relative to the changing food environment beyond food retail and to their household dynamics and changing lifestyles. We identified three main dynamics: (i) how traditional household food acquisition and preparation practices accommodate modern lifestyle convenience; (ii) how coping with the changing food retail environment and food safety concerns is mitigated by informal markets and relations and networks that are increasingly online; and (iii) how fastfood inspired less-healthy food is entering the home kitchen through pester power.

## 4.1. Traditional household food acquisition and preparation practices accommodating modern lifestyle convenience

The first dynamic regards observed strategies implemented by households within the context of transforming urban retail food environments in order to cope with food safety and convenience in everyday life. Food safety is a recent food security threat. Over the past decades the colloquial meaning of food security has shifted from concerns focused on having enough to eat towards whether food is safe to eat. Reported food scares ranged from pesticide residues on vegetables to the selling of expired and spoiled meat in supermarkets that are marketed as fresh

"Worrying about food safety is a current luxury. In the past you had no choice, whether it was safe or not, you still had to eat." (ID362-R2)

Our study uncovered that supermarkets, marketed as safe alternatives, were not frequently utilized because (1) supermarkets were not fully trusted to offer better food safety than traditional markets, (2) the necessity to purchase fresh foods everyday (supermarket shopping was less frequent), and (3) traditional shopping practices providing the convenience in modernizing lifestyles.

Lack of trust in supermarket food safety claims appeared to be importantly based on media coverage of food safety scares and personal experiences. Experiences influencing food safety perceptions ranged from having worked at a supermarket and witnessing the first-hand relabelling of packages and use-by dates of fresh produce, to having seen how a regular market vendor is also delivering fresh foods to the

supermarket (and thus there being no difference between the food safety of the foods offered between the two retail outlets). Considering the lack of trust in formal food safety claims, women demonstrated a suite of traditional practices to create their own alternative, food safety mitigation strategies based on visual inspections and personal relations (e.g. trust formed through intimate interaction with their local market vendor), though unfounded in terms of evidence of effectiveness (Table 1).

With food safety perceived as not guaranteed via supermarkets, the practice of shopping for fresh foods on a daily basis was considered the best way to mitigate food safety and meet nutrition needs. The practices contributed to daily food variation, which ensured the inclusion of diverse foods and nutrients, and kept taste palates satisfied. The strategies also diversified the food safety risks over multiple outlets/purchasing points (Vs e.g. purchasing all food from a single outlet at a single moment for the week as the practice with supermarket shopping) and multiple food products (e.g. every meal composed of different types of vegetables to spread the risk of consuming contaminated foods) (Table 1). In addition, shopping for and cooking food a day or more in advance was perceived to jeopardize human health by adding to food safety concerns.

Table 1
Food safety mitigation strategies.
Food safety mitigation strategies

foods

I worked for a supermarket, so I know that the supermarket is also unsecure. ... I have to buy foods that I feel confident about ... Nutrition is important, but for me safety is most important .... First safety, second nutrition, then taste and mood. ... I even go

Lack of trust in the safety of supermarket

to the slaughterhouse to see how they cut the meat on a table, not on a dirty floor, then I think it is more trustworthy. (ID 97\_R1) If supermarkets would be a safer source than I would consider shopping there, it's not

I would consider shopping there, it's not only about convenience, but I don't believe it. TV and newspapers reported many cases of supermarkets relabelling expired products, or pig meat from pigs that were injected with sleeping pills. Besides, supermarkets and market vendors buy from the same wholesalers. (ID99\_R1)

I don't want to buy vegetables at the supermarket. Previously, I bought foods from the supermarket, but then I saw some sellers from the market bringing their products to the supermarket. I stopped shopping at the supermarket, I lost faith. (ID102 R1)

Recently it was in the news that supermarkets erased all the dates on expired products and relabelled them. Also, supermarkets sell vegetables that are sourced from informal markets. The supermarket model and all their packaging make it seem safe, but I don't believe it. ... I buy at the market from familiar vendors. They live around here and the whole neighbourhood buys from them. If their food would cause food poisoning or an accident, the whole neighbourhood would know that immediately. (ID 362 R1)

I don't trust the safety claims of the supermarket. Market vendors do not dare to sell fake or unqualified foods, because people will return to the vendors and word of mouth will go quickly and they lose their business. (ID258 R1) Drivers towards daily shopping practices

When we eat vegetables in the evening, we buy them that day fresh ... I change food frequently for the diversity of substances and flavours. I buy fish when it is still swimming, meat from vendors that are quickly sold-out, vegetables from people who bring their veggies directly from the countryside. (ID250 R1)

If you cook one time for several meals, you are more likely to get cancer ... I met a doctor, who got cancer. She told me that she got cancer because she used to prepare food days in advance since she didn't have time to cook daily. To avoid cancer, we do not eat left-over food and eat every day fresh foods. (ID206\_R1)

All these foods will be eaten today evening and maybe tomorrow morning. If anything is leftover until tomorrow afternoon, then I will give it to the garbage collector. (ID258 R1)

When I buy pork at the market, I know whether the pig was slaughtered that same day; I can check the temperature of the meat. In the supermarket the pork meat is in the fridge, so I can't know whether the meat is fresh. I don't know the quality if I have not touched it. Fresh meat is softer and more elastic. (ID362\_R1)

To ensure our health and nutrition we need to eat a variation of dishes ... I have to cook for every meal and try to finish all or keep leftover only until dinner. It's not healthy to eat food kept in the fridge. (ID102 R1)

The traditional and preferred practice of everyday shopping needs to fit with the increasingly time-constrained modern lifestyles of women working out-of-home. Our study revealed a discrepancy between the older and the younger women regarding their perceptions on how supermarkets fit within their daily life. The elderly women were more positive about the future potential of the convenience appeal of supermarkets than their daughters (in-law) (Table 2). The aspirational attractiveness and expectations of a shift towards supermarket shopping among elderly is also apparent from contrasting 'sayings' and 'doings', in which the convenience of shopping at supermarkets appears still more an idea or conceptualised rather than a practiced reality.

"We recently go rarely to the markets and do buy in supermarkets In the morning I go to the market, both for shopping and exercise. Only when I lack something I go to the supermarket." (ID97\_R2)

Changing lifestyles demand for time-saving convenience, with younger women indicating shopping at markets most convenient (Table 2). Markets start early morning and vendors offer all kinds of services including cutting and cleaning, which supermarkets do not. Supermarkets open later and shopping is more time consuming having to travel by motorbike or car, park, and queue in lines for weighing and payment.

The perceived freshness of the foods was an additional aspect of food quality that drove consumers towards continued shopping at markets (Table 3). Frozen and processed foods offered in supermarkets were viewed as inferior to fresh alternatives, and regarding fresh produce – these were also perceived as being of better freshness in markets.

Finally, when supermarkets were visited, they were mostly used to

 Table 2

 Intergenerational perceptions of convenience between modern and traditional retail outlets.

Intergenerational perceptions of convenience between modern and traditional retail

Mothers (in-law)

Some people are shifting towards the supermarket, because they have no time to go to the market in the morning. But when they come back from work there is no market anymore, but supermarkets are still open. (ID206 R2)

When I get older and can't do the shopping for my daughter anymore, I expect my family to move to shop in the supermarket. The supermarket is convenient: it is just across the street and offers a lot of different and interesting things. (ID97\_R2)

People are lazy nowadays. They don't know how to cook properly. They can now buy from supermarkets, it is more convenient and easier, although it is not so delicious. (ID206 B2)

In the subsidy period it was terrible we even lacked basic foods like rice and other foods. Now life is much easier. I like to buy house stuff. The market looks ugly, in the sense that the country is not developed. But it is not sure that the development of supermarkets can guarantee our safety. But when there are no markets of course we need to go to supermarkets. (ID362\_R2)

Daughters

I buy all vegetables at the market. It is convenient, for example: on my way to work I go to the vendor and ask her to clean and cut the vegetables. Then the vender will wrap it in a plastic bag and give it to my mom later ... The vegetables can also be delivered to my home. I am happy with this. (ID97 R1)

I don't buy vegetables at the supermarket, since the supermarket has only limited choice. The market has much more choice and I can buy small quantities. For instance, only 1 or 2 eggplants or potatoes. In the SM you have to buy a whole bag and you have to weigh and line up at the cashier. It is not convenient. (ID362,R1) Going to the supermarket takes time. A shopping round-trip to the markets takes me about 30 min. Going to the supermarket takes me about 1 h or more (ID99,R1)

Because of my office hours I go shopping before 8am. Where to shop is also affected by, for instance, my work. My lifestyle makes that I shop at the market for convenience. If the government removes the market, than it will impact my life a lot, since shopping at supermarkets is much more time consuming, instead of just passing by and quickly buying, I have to park, enter, walk around, buy, wait for the payment, ...(ID390-R1)

Supermarket shopping is complicated. It is very time consuming. I have to queue for payment, while I don't know how safe it is. (ID102\_R1)

Table 3
How supermarkets are utilized.

How supermarkets are utilized	
Items purchased	Other utility
Sometimes I shop at the supermarket, but I usually buy household stuff there, soaps and detergents,Sometimes also frozen items, such as sausages, fries and frozen ready to eat foods. (ID99-R1)	Sometimes the whole family goes shoppin together in the supermarket (mall). We hang out to eat and relax. The children also like the ice-cream there. (ID390_R1)
In the supermarket I usually buy laundry detergent, toothpaste, cosmetics, cookies and candy for the kids, so that they can eat right after they come back from school. (ID97-R1)	We go once a week to the supermarket witi my kids. Then I buy them pizza. Or the supermarket (mall) has readymade dishe such as fried chicken. (ID99_R1)
In general, I buy from supermarkets foods like cooking oil, fish sauce, broth mix or instant noodles. The instant noodles we buy in many kinds to try each taste. It's for the kids' additional meal before they go to bed or whenever they feel hungry. I also buy cakes and candies for my children and my students (home tutoring). (ID390 R1)	When we go out, we just go around the supermarket, but don't buy anything Sometimes my kids ask for pizza. I will bu one if it is on promotion like buy one and get one for free. (ID28_R1)
Sometimes I go to the supermarket to buy dry cookery items. Fresh foods I buy from the market. Why do I have to eat preserved and processed food from the supermarket? My friend lives in an apartment, not close to any market, than you have no choice, but y house is close to the market. We can eat fresh and don't need preserved foods. (362 R1)	Every Friday evening, I bring my children to the supermarket to relax. Then I will bu them what they like, and I will cook it fo them. (ID397_R1)
Food in the SM is not fresh, why do we need to buy frozen foods when we can buy fresh foods at the market. (ID258_R1)  I prefer fresh from the market and don't like frozen foods from the supermarket. (ID397_R1) Supermarkets are nearby, but they mainly sell dried and processed foods, cakes or candies and very little vegetables. (ID397_R2)	I sometimes bring my children to the supermarket and they can choose what they want. (ID258 _R1)

buy household items (cleaning products, toiletries) and non-perishable processed foods (hydrogenated vegetable oil, instant ramen noodles). Given that the households weren't utilising supermarkets as a primary source of food, and rather continued to utilise traditional market retail outlets, it appeared that having supermarket availability close to home did not contribute to food security among the low-income households of our study. Although the women didn't appear to appreciate supermarket food quality, they visited supermarkets with their children to spend leisure time (supermarket often provide child play areas) and to purchase a food 'treat'. With food choice one of the few luxuries they can occasionally allow their children; processed and western style food was often the preferred affordable treat.

## 4.2. Coping with the changing food environment with informal relations and networks

The second dynamic regards the agency of 'consumers' in coestablishing opportunity for food security within their transforming food environment. This agency was apparent in the way communities creatively developed workarounds to formal food retail modernization policies that enabled traditional vending and shopping practices within the neighbourhood to persist. An example of ignoring and going against policy was observed through the reported practices of opening-up the ground floor of houses for market vendors to utilise (to evade the ban on street vending). This practice was not only motivated by preferred shopping practice, but importantly also by concerns for local community economies, including vendor livelihood considerations and communal solidarity (Table 4).

In addition, the research uncovered innovative and socially acceptable ways of acquiring food based on informal networks, both in person

Table 4
Creative agency of 'consumers' in co-establishing food security.

Creative agency of 'consumers	in co-establishing food security
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If the state will remove this informal street market it will affect us a lot, while in return the market doesn't affect them at all. People just start selling in their house or rent other's ground floor, to evade selling on the streets. Besides, the government started building markets in places where people don't want/need a market; (example)why spending a lot of money for building markets without customers? (ID258 R2)

Retaining local vendors

This street market should not be removed from our neighbourhood. The vendors are familiar people to us, who have been selling here for a long period. The older they are, the harder it is to find a job. How will they live without selling in this market? (ID362 R1)

If the government wants to close the markets, of course it will affect the livelihoods of the people around here, especially the vendors in the market, like my mother, will suffer. The families will have a hard time when they can't continue their business. (ID250 R1)

I go to the market every day. I like to go shopping there. ... I am familiar with the vendors. (ID28\_R1)

It is necessary to create conditions for rural producers to do business and for elderly people to afford good food. For instance, retired people buy a bunch of vegetables at the market for 5000VND. But when they have to go to the supermarket and maybe pay double, how can they afford that? We have to take care of these people (vendors and buyers) that depend on the market. (ID99 R1)

I am a teacher, and I have some colleagues with relatives in the countryside. Once a week, the relatives send vegetables to the school to be sold to all of us. Some people from the coastal areas send shrimps, crabs, squid and sea fish. The mother of my friend lives in Hai Phong [coastal city]. When she visits her mother, she will buy mackerel and other sea fish to sell it here. If these families sell something, we can trust it. (ID99\_R1)

Novel Approaches to Access Fresh Foods

Now there is the trend that people want to eat safe vegetables. They started selling safe vegetables at offices for all the employees. (ID206 R2)

I get chicken from my colleague. Each time when she goes to her hometown, she brings it for me. At my academy there is an online market, so called 'countryside market of the Academy', Many teachers sell their homemade foods there. I trust these foods. because they are all my colleagues so it must be credible. I more believe in the source of acquaintances. (ID390\_R1) When I visit my parents [in the countryside] I buy food and send it by bus to Hanoi. In the past my mom bought foods for me and my father would send it via bus for me to Hanoi. This was really convenient, because the driver would call me for receiving the goods. But my dad had a stroke last year and now my mom is too busy, so I don't ask her anymore. (ID315 R1) Sometimes I buy online, via Facebook I joined a community of farmers. You learn and see many people on Facebook who cultivate organically or half organically. I also try to believe them, because many of the members are really passionate about organic farming. I often eat fish and I mostly buy fish via Facebook, because it is difficult to buy fresh and safe seafood nowadays. I buy fish mostly from people on the internet. They are from the coastal, fishing areas. (ID127\_R1)

and on-line, motivated by food safety and quality concerns. Examples included asking a friend to bring back food from a weekend trip to the countryside, organizing collective buying groups at work, or connecting with a collective buying Facebook group (Table 4).

#### 4.3. Western style foods entering the home kitchen through pester power

Thirdly, this study uncovered how children's tastes and preferences were driving intra-household dietary shifts among low-income urbanites. All households mentioned the importance of having multiple dishes available at the table, catering to the diversity in tastes and preferences of the household members, most importantly the children (Table 5). All women indicated to strongly align and mostly prioritize their food purchasing and preparation choices with the tastes and preferences of their children as they believed their children would eat better when they liked the food served.

"It's a priority to make the food that children can eat." (ID250 R2)

This apparent urgency to cater to children's tastes was strongly supported and influenced by the older generation that had experienced

**Table 5** Shifting food patterns at home: Western style food.

Shifting food patterns at home: Western style food				
Children's taste preferences drive food choices	Household strategies to appease child preferences	Perceived links between child overnutrition, western style food and supermarkets	Drivers of shopping practice towards food abundance	
I cook according to the preferences of my two children, my husband and I will follow and my mom is vegetarian. The meals depend on whether my children will eat it. If I cook my own ideal meal, but my children don't want to eat it, then it's useless. (ID 102_R1)	My children don't like eating boiled chicken, but they love KFC fried chicken. I can't afford going to KFC, so I will buy chicken wings and fry it for them; potato chips also. They say KFC is better, but I just need to meet the requirements of eating fried chicken, that's ok with them. (ID28_R1)	My daughter is eating chocolate every day. She eats too much chocolate. I told her to reduce chocolate. But I don't want to force my kids to eat anything. My 6-year old son should be 23–35 kg, but he weighs nearly 40 kg, so he should be on a diet He eats donuts, cookies, sweets, etc This is called obesity. (ID348_R1)	When I was young, we had nothing to eat. I tell the children that they nowadays live happier than I was during the subsidy period, when there was nothing to eat. We had to queue and didn't have meat in our daily meal. We had no choice what to eat, or what we liked. We only wished as children to eat white rice with some meat. When I married, we became self-sufficient and I could finally eat what I wanted. (ID28 B2)	
Adults and children have different tastes. Adults are easier, simple dishes are ok, but we have to follow children to make them eat. This is not like before, when children had to follow the adults. Children nowadays are very different, they will never eat what they don't like, and we cannot force them to eat. (ID397_R1)	My children like KFC-style fried chicken and I thus prepare fried chicken. I cook what my family members would like to eat. My mom does not like meat. I myself am overweight, so I do not like meat My husband has a liver disease from drinking alcohol and should also avoid fatty foods. My son only eats eggs, pork pies and sausage. He also loves spaghetti. (ID348_R1)	I don't like soft drinks. Because I used to sell newspapers for 12 years and I've read some news that it is not very good for children, but my oldest son drinks RedBull, Sting and Coca every day. It's so disorganised. I watch the news on the tv and tell them to limit their intake. But if you keep watching the news and limit them, then they can't eat anything and then they can't grow because of malnutrition. (ID 28_R1)	(ID28_R2) In the past it was very miserable, the state standardized the monthly amount of food: An adult was subsidized 300gr/month of meat and children would get 500gr/month of meat. When it came to rice, an adult got 13–15 kg/month, while a child received 4-5 kg/month. Subsidies were generally lacking in nutrients. At that time, we had to line up for both vegetables, meat, fish, salt fish sauce, rice, firewood, sugar, The '70–80's period was very miserable Life is much better now. There are plenty of food choices and we don't need to queue-up.	
I have to make sure that all the food is delicious, they [referring to children] need to absorb the nutrients. People crave for ingredients their	The adults in our family are all easy, so our menu tends to follow the kids' taste. We drink water, but the kids drink sweetened milk. When they want to eat fried chicken thicks I.	My grandchildren are fat; My grandson is 8 yrs old and weighs 40 kg. In the past there was not enough to eat we had to grow our own vegetables. No need to buy. But now you can buy what you	(ID250_R2) Now in my house I have fruits and candies and cakes for the children. It's always available here for them. In the past there was no candy. My home now is always full	

chicken thighs, I

can buy what you

Table 5 (continued)

Children's taste preferences drive food choices	Household strategies to appease child preferences	Perceived links between child overnutrition, western style food and supermarkets	Drivers of shopping practice towards food abundance
body needs. (ID362-R1)	will buy and prepare it for them. (ID397_R1)	want It is actually too happy. Today there can't be malnutrition with all the fruits and candies and cookies always available everywhere. (ID258 – R2)	of food. Even the kid next door always comes to my home to asks for a snack. (ID258 – R2)
My kids will not eat what they don't like and then their health and their development is not guaranteed. (ID99_R1)	My family cannot afford to eat luxury things. We just cook (these) at home, there is no way to eat outside in fast-food restaurants. (ID97_R1)	We should not eat fast food or processed foods, it's not good at all because it contains a lot of preservatives. That's why I don't want to buy foods from supermarkets. (ID99 R1)	
It's normal for kids to propose many special meals It must be delicious, otherwise they will not eat it. (ID97_R1)	My kids like to eat meat. (ID28_R1)	My kids used to drink a lot of soft drinks, but now I try to limit this, because I watched some warnings on tv. They drink sweetened milk. It is a convenient breakfast for them; just a box of milk and an instant [sweetened] bread roles. (ID102 R1)	

severe food shortages and food and nutrition insecurity in the past (late 20th century<sup>7</sup>) (Table 5). This was reported to have occurred largely during the subsidy period (1975–1986) when there was little diversity of foods available in the market. As people escaped extreme poverty and reached some kind of financial independence, older generations seemed to encourage the catering of children' food preferences, regardless of the foods being requested.

While parents and grandparents still preferred the traditional home cooked Vietnamese cuisine - low in meat and high in vegetables - their children preferred western foods and eating out. Children's tastes and preferences were hence observed to be causing the shift in diets from being traditional healthy, and more sustainably fresh and plant based to being increasingly meat centred. This resulted in the ubiquitous uptake of processed meats, western-style fast-food dishes like pizza and fried chicken being prepared at home (the urban poor reported they could not afford to purchase these from fast-food retailers), ready-to-eat snacks, and sugar sweetened drinks. Lower-income populations can't afford eating out but are increasingly incorporating home-made western style-food into the household diet.<sup>8</sup>

Whilst women acknowledged the link between child overweight and obesity as at least partially the result of catering to children's tastes and preferences for deep fried dishes and sugary drinks, at the same time, a perceived fear/conundrum was highlighted that the alternative

now is always full

<sup>7</sup> Here it is important to explicate that eating-out refers to the practice of 'going-out to eat-out' in a restaurant or eatery, differing from a quick convenient traditional street-food outlet. Participants made a clear distinction between the practice of consuming street-food, which was considered un-safe, and the practice of more formal eating-out as an unaffordable luxury: "I always eat at home and do not eat in the street. Street-food is not safe." and "Mv family cannot afford to eat-out in restaurants." (ID97 R1)

restricting diets would place children at risk of potential undernutrition and stunted growth and development if children refused to eat less-preferred foods. Besides, being financially constrained, food choice is one of the few 'pleasures' women can allow their children (Tables 3 and 5).

#### 5. Discussion

Our previous work indicated that low-income urbanites were not using supermarkets even when they were close by, and traditional markets far away – the result being that their diets had not yet drastically changed as a result of the modernization policy (Wertheim-Heck and Raneri, 2019). Whilst we focused on the food retail environment, changes to this environment evidently are inducing changes within the home food environment as consumers adjust their food choices and purchasing behaviours based on what is available in the retail environment, as well as children's preferences for food from the home food environment.

This paper specifically strived to uncover emerging dietary trends by understanding the more hidden dynamics of food consumption in everyday life, to explain for the observed urban dietary changes particularly among children (Pham et al., 2019), that couldn't be ascribed to shopping practices following the pro-supermarket retail modernization policy (Wertheim-Heck et al., 2019). We identified three main dynamics at play: traditional shopping and food preferences is strong; creative agency results in food security resilience; and pester power is driving food preparation and subsequently dietary changes at the home dinner table even if preferred food acquisition practices aren't changing.

Firstly, our results illustrate the dynamic interaction between food acquisition and preparation practices and the transforming and modernizing urban food retail environment in Hanoi. Though both the food retail environment and lifestyles of low-income urbanites is subject to change, our study showed why women prefer to continue the traditional well-established (for generations) practice of daily market shopping. Women believed this practice enabled them the convenience they desire, whilst also accessing fresh, healthy nutritious foods that they prefer. In this context, achieving food security (particularly the sufficient quantity and quality of food) meant women had to apply adjustment strategies that enabled them to circumvent the Government supermarketisation strategy that increasingly replaces markets with supermarkets to identify innovative resilience strategies to mitigate food safety whilst ensuring stable and continued access to preferred foods in a socially acceptable way. This resulted in women continuing to practice daily shopping for fresh foods at markets, as well as through selforganized informal acquisition groups, in which traditional practices accommodated the need for modern lifestyle convenience.

Clearly, policy makers, and this holds true beyond Vietnam, face challenges in inclusively transforming urban food environments for the health and wellbeing of all their citizens (Giles-Corti et al., 2016; Rydin et al., 2012). Unsurprising, as there is little evidence on urban planning policy impacts on health risks or inequalities despite several calls to evaluate these policies as such (Friel et al., 2011; Cobb et al., 2015). There is a continuous, dynamic relationship between urbanites as social beings and the urban food environment. The transition towards a healthy and sustainable inclusive urban food system requires recognizing the human dimension, particularly creativity, that urbanites display in shaping their consumption patterns.

Secondly, our study uncovered the dynamic performativity of food acquisition and preparation practices, demonstrating how low-income urbanites display creative agency in performing their preferred food acquisition practices in order to continue meeting their food preferences. They therein not only co-constitute the food environment, but in doing so also co-shape their own food security. Innovative community led approaches resulted in agency and ownership in finding solutions to overcome the government's attempt to funnel consumers away from wet

markets and into supermarkets – resulting in unique household strategies to maintain food security resilience within a transforming food environment. Food insecurity was mitigated by informal networks, which were also increasingly online. This fits the trend of peer-to-peer interact-ability brought by the internet enabling online-personalised trust relations: trusting social media friends' selections and experiences (Dang et al., 2018). These strategies remained largely limited to 'pure purchasing' behaviours. Despite urban agriculture being a potential strategy for ensuring urban food security, (Sant'Anna de Medeiros et al., 2019), our research did not find that low-income urbanites of Hanoi were producing foods or otherwise acquired urban agricultural produce.

Thirdly, our intergenerational perspective uncovered how food preparation, and subsequently dietary patterns are shifting (without dominant shopping practices changing) through children's tastes and preferences. The power of children to influence household dietary practices was similarly observed in a study looking at influences of modern retail outlets on urbanite diets in Ho chi Minh and Hanoi (Mai et al., 2020). This is a unique dynamic that warrants further investigation to identify interventions to help preserve the nutritional quality of the traditional Vietnamese diet such as nutrition education and awareness interventions such as school based interventions that have been effective at nudging children's food choice behaviours (Jung et al., 2019).

Our intergenerational approach also brought to light another tradeoff facing low-income urbanites, how food security has simultaneously improved in terms of food quantity - today's abundance and ease of food access allowing for food choice - and yet at the same time deteriorated in terms of quality – the introduction of less healthy western-style foods and concerns around food safety. The intergeneration approach allowed for insights into drivers of diet and food security changes observed to be widespread as a result of the nutrition transition reported elsewhere (NCD-RisC (2017), and that were not picked up in our previous study (Wertheim-Heck et al., 2019). Specifically, despite the introduction of western-style foods, for the time being these foods are prepared and cooked at home, with ingredients purchased from markets. This is likely why the transition was not captured in the 24 h diet recall in our previous study when analysing the source of the foods consumed. In addition, given that all women interviewed still preferred traditional meals, the traditional habit of cooking multiple dishes catering to the diversity of tastes and preferences within the households continues. This means that the frequency of these western style meals at home are likely not currently frequent enough to be captured in a cross-sectional study in a way that shows impact in diet quality through dietary recalls, and explains why women are still eating healthily. Whilst our research found that the diets of low-income urbanites still reached a minimal level of adequacy in terms of diet diversity and micronutrient intake, with time this is likely to change and these western and ultra-processed foods are likely to increasingly become a part of daily food practice (Raneri et al., 2019).

Currently, there is limited data available that carefully disaggregates and compares diet quality, nutrition, NCD and other health outcomes associated with the nutrition transition between lower and higher income households in Vietnam. This means it's not possible to yet discern drivers of high national rates of the double burden of malnutrition, and how these may differ in different income brackets for urban households. However, a study from Ho Chi Minh similarly found that the consumption of purchased western-style food was minimal in low income urban populations, characteristic of the early stages of the nutrition transition where these foods are likely out of reach of low-income consumers (Vuong et al., 2015). The practice of cooking 'western-style' food at home highlighted the disconnect between the women's perception that western food is not good for health and their choice to appease their children. Here, we see almost a shift back to the older generation's perception of food security, which prioritises ensuring the quantity of food consumed over the quality (despite quality not being necessarily an

option in the past).

Based on our empirical findings we uncovered shifting meanings of food security driven by differences in intra-generational experiences. For elderly, their experience of food insecurity was primarily associated by the lack of sufficient quantities and diversity of foods. Their food retail environment was simple - only traditional markets available, with limited food diversity. In contrast, food availability is no longer the primary concern for low-income urbanites. In face of a rapidly transforming urban food retail environment, offering a more diversified retail and product availability, food security concerns have rather shifted towards insufficient quality of foods, particularly food safety, nutritional quality and freshness. Food security is an evolving concept, and one for which defining dimensions change over time depending on the food environment and food system contexts in which populations find themselves. This is most recently highlighted by the revised definition of food security adopted by the Committee on World Food Security which adds agency and food preference dimensions (HLPE, 2020). Our research provides empirical evidence to support the inclusion of these dimensions into how food security is conceptualised operationalised.

Finally, our SPT informed approach provides grounded, situational perspectives on processes of social change. In Vietnam, the modernization of the food retail environment is aimed at enforcing a break with existing routines through the replacement of markets with supermarkets; aiming to de-routinize consumers from shopping at markets and reroutinize them in shopping at supermarkets. However, as demonstrated, improving food security is not just a matter of bringing about de- and reroutinization with food environment interventions, but requires more nuanced understandings of social dis- and re-embedding processes of habituation, leading to changing and newly emerging food routines. This study focused on low-income urbanites and findings may diverge from research on middle- and higher-income populations. Nevertheless, by exploring the daily food practices on a familial basis and the material, meaning and competence elements of 'doings' and 'sayings' the intergenerational relationships, this paper offers a better understanding of the complexity of food consumption.

#### 6. Conclusion

Rapidly urbanizing and transforming food environments are associated with significant inequalities in urban inequalities and child malnutrition (Szabo et al., 2018), our research provides a novel insight into pathways that might result in this. We identified a tension between supermarkets being marketed as being outlets of safe foods, and the reality that low-income households continue to rely on markets (importantly informal markets in the absence of formal markets) for most of their daily meals. This tension has been noted by previous research, that largely attributes the reason for this being lack of physical and/or economic access to supermarkets (Bloem and Pee, 2017; Su et al., 2017). Our research instead suggests something else is at play given that low-income urbanites are not utilising supermarkets despite their physical accessibility. Rather, we present evidence that the tension sits within the complexity resulting from a rapidly transitioning food system and food retail environment. Where inter and intra-personal, together with inter-generational preferences, perceptions and beliefs sometimes conflict - the desire to engage in what is perceived as 'progressive' and 'modern' urban behaviour, together with the fear of losing tradition and mistrust in modern systems and claims. Our study illustrated how food security (access, availability and utilization) is dynamic, whereby what is preferred and socially acceptable is changing over time. Moreover, and most importantly, this study uncovered how food security is a concept that is not limited to systems of provision in terms of accessibility and availability but is importantly a dynamic interplay of food retail environments, food acquisition and preparation preferences, and creative agency, wherein food security can take different forms within changing contexts.

Dietary change is a complex challenge that policy makers across the globe are struggling to solve. Traditional top-down policy making appears to not be the most effective strategy, and policies that focus on adjusting the retail-structures within a food environment to shift dietary patterns might not always result in the outcomes anticipated. Policy makers should engage in pre-emptive consultation with populations directly impacted by planned food environment policies to ensure they are relevant to consumers, as well as leverage the innovation and creative agency that is an untapped resource within this population. Doing so may result in unique solutions to bridging the conundrum of food safety and nutrition, and pre-empting a further shift away from traditional plant-based diets, towards less sustainable meat-centred dishes and poorer diet quality.

#### **Declaration of competing interest**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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#### Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi. org/10.1016/j.gfs.2020.100418.

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