

Better decisions for food security? Critical reflections on the economics of food choice and decision-making in development economics

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Abstract

With malnutrition recognised as a key public health issue, attention has been placed on how individuals can make better decisions to attain food and nutrition security. Nevertheless, food practice entails a complex set of decisions that are not fully understood. This paper interrogates the focus on food choice by investigating how socio-economic relations shape practices of food provisioning. Given the surge of behavioural approaches in development economics and our focus on a middle-income country, we contextualise food choice in the transformations of the conceptualisations of decision-making in development economics. We draw on mixed-method evidence on food consumption practices among schoolchildren in Accra, Ghana. We find that the food decision-making process is complex in that it entails multiple moments and people, and embodies contradictory motivations. Decisions are negotiated outcomes reflecting social relations of power among the actors involved. Socio-economic inequality fragments the urban food environment and material living conditions. Furthermore, the concentration of capital gives the food industry the power to shape material and cultural relations to food in ways that extraordinarily limit the scope for individual choice. This is a critical case study to understand the contemporary dynamics of malnutrition in the urban Global South, with broader relevance for the analysis of food poverty elsewhere.

1. Introduction

The recognition of malnutrition as a key public health issue draws attention to the economics of food choice. The growing prevalence of bad diets and obesity has changed the framing of food insecurity, from being considered a scarcity and poverty issue to being one of ill-advised choice. The focus on choice is compounded by the sedimentation of neoclassical economics' central concern with individual decision, which is reproduced through the surge of behavioural economics, and the advances of nutrition sciences – these disciplinary trajectories led to prevailing conceptualisations of food and nutrition issues as technical, biomedical and individualised, ultimately pertaining to demand-side factors. Decades of neoliberalism become visible, *inter alia*, through the triumphant narrative of individual responsibility. The recent award of the 2019 Sveriges Riksbank Prize in Economic Sciences to the pioneers of randomised controlled trials confirms that the behavioural approach to how people make choices (that deviate from the optimal) will continue to exert its influence over how we frame the understanding of poverty, development and food problems.

On the contrary, it is clear that the broad and unequal transformations in diets across the world – particularly acute in middle-income countries (Imamura et al., 2015) – point to the necessity to understand the systemic changes in the conditions of food production and distribution, which underlie food acquisition and consumption practices. Specifically, there is a gap in our understanding of the complexity of food decision-making processes and of the mechanisms that connect food consumption practices to the organisation of everyday life and the concentration of capital in agri-food systems of production, distribution and trade.

This paper interrogates the focus on food choice to achieve food security by investigating how socio-economic relations shape practices of food provisioning. As our case study is urban Ghana, we contextualise food choice in the changing conceptualisation of decision-making in development economics. Seemingly opposing branches of development economics have in common a concern for individual behaviour and decision-making. We use mixed-method evidence on food consumption practices among schoolchildren in Accra to analyse food decision-making processes as embedded in the urban food environment and globalised food systems. We find that the food decision-making process is complex in that it entails multiple moments and people, and embodies contradictory motivations as well as social relations of power. Thus, the individuality of decision-making disappears within social relations and material constraints. The urban food environment reflects socio-economic inequality, which shapes material living conditions and food acquisition practices. Furthermore, the concentration of capital gives the food industry the power to shape material and cultural relations to food in ways that extraordinarily limit the scope for individual choice.

We build on the critique of methodological individualism in neoclassical and behavioural economics (Fine et al., 2016) and on arguments on the dangers of moralising the poor consumer (Metha, 2013; Glaze and Richardson, 2016) to advance a definition of decision-making as a process that is embedded and constrained. In addition, our analysis illustrates with empirical evidence how the food industry appropriates the nutrition discourse to deepen the commercialisation of health promotion as a channel for capital accumulation (Scrinis, 2013; O’Laughlin, 2016; Sathyamala, 2016). It provides a critical case study to understand the contemporary dynamics of malnutrition in the urban Global South, with broader relevance for the analysis of food poverty in the Global North too.

Section 2 discusses food choice. Section 3 provides an overview of the concept of decision-making in development economics, from the 1960s to today. Section 4 describes the study setting and methods and the following three sections discuss evidence on food decisions, consumption and systems in Ghana. Section 8 concludes.

2. Food choice

It is estimated that a person makes on average 200 decisions on food every day (Murimi et al., 2016). Until the twentieth century, the key nutritional issue was that people could not afford sufficient food or the necessary nutrients (Nestle, 2002). Nowadays, nutritional problems are framed by global dietary change and inequality (Perez-Escamilla et al., 2018; Stevano et al., 2019). The multiple burdens of malnutrition are now recognised as a key public health and development issue. Across the world, calorie intake is on the rise and so is consumption of vegetable oils, meats and ultra-processed foods (Monteiro et al., 2013) and growing economic inequality shapes what foods people eat (Perez-Escamilla et al., 2018). In this context of growing obesity and bad diets, the relevance of food choice is amplified. Yet, the broad and uneven dietary transformations raise questions on the centrality of systemic changes in food production to understand food habits.

A vast body of literature studies food choice using a heterogeneous collection of conceptual frameworks, from intra-household spending dynamics to psychological models of food choice. A focus on intra-household resource allocation suggests that food and nutrition outcomes depend on who controls income in the household. Women’s ability to make decisions on household income, wage and nonwage, is considered to be a channel through which child and household food security can improve (Hoddinott and Haddad, 1995; Duflo, 2003; Malapit et al., 2015). The mechanism of change unfolds via shifting household spending patterns, with food expenditure

increasing as a result. For example, Duflo (2003) finds that social grants given to women in South Africa are associated with better nutritional outcomes for girls in the household. These studies establish the importance of gendered control of income for food decision-making and, consequently, nutritional outcomes. However, the decision-making process – i.e. the process that entails food acquisition, preparation and consumption – remains largely unexamined: most of these studies do not investigate who takes part in food-related decisions, whether the act of purchasing reflects full control over the food decision-making process, and how resource allocation is shaped by the foods that are available and affordable, and by food acquisition practices.

Nonetheless, this literature has given rise to a broader focus on the role of mothers as decision-makers for child nutrition (Smith et al., 2003). Among various factors, such as bargaining power and empowerment, maternal education is identified as an important determinant of decision-making: better educated mothers make better choices on how to feed their children (Handa, 1999; Frost et al., 2005; Imdad et al., 2011). For example, Smith et al. (2003) find that women's education is strongly and positively associated with child nutrition across sub-Saharan Africa, South Asia and Latin America. Frost et al. (2011) investigate the pathways between maternal education and child nutrition in Bolivia and find that the most significant one is 'modern' attitudes towards health care. Maternal education has become an important component of nutrition interventions, with some programmes being solely focused on the provision of nutrition education to women. An illustration is the StartSmart Programme launched in South Africa in 2013 by Global Alliance for Improved Nutrition (GAIN) with the aim to provide mothers with mobile phone messages on how to better feed their children. Imdad et al. (2011) review 17 impact evaluation studies and find that the effect of mother's knowledge of complementary feeding on child nutrition varied, with the most effective interventions focusing on the importance of nutrient-rich animal-source foods. The evidence on maternal education is more mixed than assumed, with studies highlighting the importance of socio-economic variables and access to good quality health care (Handa, 1999; Frost et al. 2005). Studies on communication and food choice suggest that at best consumers respond differently to information about food quality, with subjective knowledge being more important than objective one (Verbeke, 2008; van der Merwe et al., 2010).

Some models of food choice draw on psychology to lay out the multiple determinants of how individuals make decisions on what to eat (Shepherd and Raats, 2006). For instance, Sobal et al. (2006) develop a model of food choice over the life course where food choice is part of a personal system of values influenced in turn by micro-contexts of daily life, such as family, school and workplace, and the macro-context of society, economy and policy. The complexity of disentangling food decisions is mirrored in empirical studies. Okoro et al. (2015) identify seven sets of factors, including food context and personal values, that shape construction workers' food choice in South Africa. However, even when a set of determinants can be identified as the most significant, Jackson et al. (2006) remind us that the meanings of convenience, value and habit depend on the household context. Social aspirations can also influence food choice (Brown et al., 2015). Therefore, although the focus remains overwhelmingly on the individual, these studies strongly indicated that food decision-making embodies multiple influences, material and cultural, and is highly dependent on spatial and temporal contexts as well as socio-economic processes.

Nonetheless, the most recent generation of studies on food choice is informed by behavioural approaches, which maintain a firm focus on individual behaviour. Randomised and choice experiments are used to assess a variety of policy-relevant questions. For example, Hidrobo et al. (2014) study the relative effectiveness of food, cash transfers and vouchers in improving food consumption through a randomised experiment and find that food transfers are associated with

increased calorie intake. Probst et al. (2012) conduct a choice experiment in West Africa to find out food vendors' and consumers' preferences over organic vegetables, and conclude that interventions aimed at educating the elites will be more conducive to choice of organic vegetables. While the concern is with choice and biases that prevent optimal choices, the ability of these studies to explain the decision-making process appears limited.

Besides varying the degrees of attention to the food decision-making process, the centrality of decision and choice is accompanied by a cross-cutting focus on consumer demand. The systems of food production and distribution almost completely disappear in the literature reviewed, with a few exceptions in the studies of food choice attempting to connect choice with context (Jackson et al., 2006). The advances in economics and nutrition sciences created an image of nutrition as a technical, biomedical and individualised issue (Winson, 2013; Sathyamala, 2016). The exercise of pinning down outcomes to individuals' decisions, found in both neoclassical and behavioural economics, is problematic because it leads to 'pathologising' the consumer (Metha, 2013). The poor are especially inclined to make poor choices (World Bank, 2015; Glaze and Richardson, 2017). In the political context of austerity in the UK, the use of food banks and rising obesity among the working class are seen as failures of personal responsibility and ability to make appropriate choices (Glaze and Richardson, 2017). Extending the moralisation of the poor, behavioural economics adopts that psychological language to describe individuals who do not act rationally as 'myopic', 'naïve' and as manifesting a variety of psychological conditions, which suggests their decisions depend on individual and biomedical characteristics (Metha, 2013).

The broad and uneven shifts in diets across the world, which are especially severe in middle-income countries (Imamura et al., 2015), expose the limitations of approaches that focus on individual food choice. Two important changes are necessary. First, we need to better understand what food choice is and what dimensions a process of food decision-making entails. Second, we need to embed the micro-patterns of decision-making in a broader understanding of the organisation of everyday life practices, concentration of capital in agri-food systems and systems of production, distribution and trade, and map the mechanisms through which these processes come to shape what food is available, how it sourced and consumed. We will take such approach in the analysis of food practices in urban Ghana. Before we move to the case study, we provide a survey of the conceptualisation of decision-making in development economics, which, we argue, lays the foundations for the focus on individual choice in agricultural, food and nutrition issues in countries of the Global South.

3. Decision-Making in Development Economics: A Brief Overview

In development economics, early attention to decision-making predominantly focused on farmers' decisions. With the 1960s paradigmatic shift to market-led visions of economic development, peasants in developing countries began to be conceptualised as optimising economic agents and the efficiency of production in poor farming households became the object of inquiry in development economics literature, as Lipton (1968: 327) puts it in the 'theory of the optimising peasant':

'Economists of underdeveloped countries are beginning to realise that the farmer is no fool. A non-fool learns to live efficiently: to optimise given his values and constraints, and to teach his children to the same.'

With clear foundations in the neoclassical economics of the farm household, which conceives farmers as individual decision makers, various economic theories of farm household production

emerged (Ellis, 1988). For example, the work by Schultz (1964) was pivotal to theorise the profit-maximising peasant. Considering only allocative efficiency and assuming competitive markets, Schultz claims that poor peasants are efficient producers who respond predictably to price movements (*Ibid.*). Among Schultz's critics, Lipton (1968) highlights that missing markets and uncertainty prevent poor peasants from maximising their profits. Instead, as Lipton explains, poor farmers are risk averse and utility maximisers (*Ibid.*). Somewhat along these lines of inquiry, a stream of work investigated how uncertainty, missing markets and imperfect information shape farm households' decisions and risk behaviour (Roumasset, 1976; Binswanger and Sillers, 1983; Binswanger and Rosenzweig, 1986).

Exploring the debates on farm household production, within and beyond neoclassical economic frameworks, is beyond the scope of the article (see Ellis, 1988; Low, 1986; Mendola, 2007). Here we want to highlight how the shift in dominant economic thinking and the increased prominence of neoclassical economic approaches in development economics provided the rationale for centring the study of agricultural production on the issue of decision-making, conceptualised as an individualised and optimising process. In much of this literature, farmers' decisions are seen as being driven by the rational calculus of profit or utility maximisation and detached from the power relations that determine access to land, inputs and labour. Thus, the connections between decision-making processes and the social relations of production were not explored in the mainstream development economics literature. Nonetheless, the decision-making theoretical frameworks have been influential not only in shaping academic debates but also in informing agricultural policy in low-income countries, such as agricultural liberalisation policies aimed at increasing farm prices (Ellis, 1988).

A cross-cutting feature of the 1960s theories of farm households is the conceptualisation of the household as a unitary decision-making entity.¹ Anthropologists and feminist economists were the first to challenge this definition of the household, on the basis that households have varying configurations and are internally fragmented, with individual members having specific needs depending on gender, age, ethnicity and the household's developmental cycle (e.g. Folbre, 1986; Guyer and Peters, 1987; Kandiyoti, 1999). Becker's New Household Economics (NHE) makes assumptions that household members pool their incomes and that benevolent household heads make altruistic decisions (Becker, 1981); however, these were disproven through analyses of familial units in developing countries. For example, studies conducted in sub-Saharan Africa find that households are fluid in societies with high divorce rates (Guyer, 1986) and that wives and husbands keep their incomes separately (Fapohunda, 1988). The failure to observe intra-household dynamics was also criticised for obscuring intra-household inequality, with the household being recognised as a key site for the reproduction of (gender) inequality in feminist literature (O'Laughlin, n.d.). Spurred by these critical perspectives, economics moved away from unitary household models and towards theorisations of the bargaining power of various household members through collective household models (Chiappori, 1997; Vermeulen, 2002).

The growing recognition that households are not homogeneous units led to the emergence, from the 1990s, of a stream of empirical literature in development economics interested in the analysis of intra-household resource allocation (Thomas, 1990; Haddad et al., 1997; Quisumbing and

¹ Although the theoretical approaches are different, both neoclassical economics and Marxist political economy treat the household as a homogeneous and cooperative unit: in the neoclassical tradition, individual members' preferences are collapsed in a single utility function; in the Marxian tradition, household members are considered as belonging to the same class (Folbre, 1986).

Maluccio, 2000; Doss, 2013). It is within this literature that we find renewed interest in decision-making. This body of work has the overarching aim to provide robust empirical evidence to reject unitary household models and, in doing so, it makes two key contributions. First, it demonstrates that gendered intra-household resource allocation shapes agricultural production, household consumption and well-being outcomes (Thomas, 1990; Udry, 1996; Haddad et al., 1997; Quisumbing and Maluccio, 2000). Second, it argues that intra-household decision-making filters the impact of development policy (Alderman et al., 1995; Doss, 2013). Overall, understanding how household members make decisions over control, management and use of various productive resources, such as income, land and durable assets, is essential to capture wealth, consumption, well-being and policy outcomes.

This literature has contributed to advancing the understanding of intra-household dynamics in developing countries, nevertheless, it has also been criticised for overly linking decision-making and bargaining power to quantifiable individual and household factors, such as asset ownership (Agarwal, 1997). For example, many studies document that women and men make different consumption decisions, with women prioritising family-oriented goods and men favouring individualised forms of consumption; thus, when women have access to more productive resources, household consumption shifts towards greater food expenditure (Hoddinott and Haddad, 1995; Quisumbing and Maluccio, 2000). However, these studies fall short of historicising these decisions by linking them to processes of change that shape the gendered organisation of production and reproduction (Whitehead and Kabeer, 2001; O’Laughlin, 2007). Other studies highlight the importance of extra-household factors, such as social norms and institutions (e.g. property rights and child care policies), as well as qualitative analyses to capture the complexity of gendered decision-making, all aspects that are not adequately examined in great part of the literature on intra-household resource allocation (Agarwal, 1997; Folbre, 1997; Kabeer and Whitehead, 2001).

Finally, the most recent branch of development economics with a core interest in decision-making is that informed by behavioural approaches. Set to provide an alternative to rational choice theory,² behavioural economics advances the notion of bounded rationality (Simon, 1955) and the dual system of thinking (Kanheman, 2003) to explain why individuals make non-optimal choices. In the context of development, these concepts have been framed in the idea that poverty creates scarcity of psychological resources (Mullainathan, 2005). Accordingly, in the World Development Report (WDR) 2015, the World Bank (2015: 81) redefines poverty as follows:

[...] poverty is not simply a shortfall of money. The constant, day-to-day hard choices associated with poverty in effect tax an individual’s [...] mental resources. This cognitive tax, in turn, can lead to economic decisions that perpetuate poverty.’

Decision-making is seen as central to development and poverty outcomes and conceptualised at the interface between material deprivation and cognitive burden (Mullainathan and Shafir, 2013; World Bank, 2015). Individuals living in poverty face material constraints that create psychological biases that prevent them from making optimal decisions. For example, Mullainathan (2005) describes how poor families make myopic decisions on children’s education due to immediate concerns, such as the length of the journey and arguing with children over going to school, conditions that create a mental burden on parents who may end up preferring to keep children out

² The success of behavioural economics to provide an alternative to rational choice theory has come under scrutiny and critics have argued that the appeal of behavioural economics lies in its fictitious departure from neoclassical economics (Metha, 2013; Fine et al., 2016).

of school. Other studies show that poverty creates poor frames that translate into low aspirations (World Bank, 2015). An experimental study conducted in Western Kenya concludes that farmers' decision to make a low use of fertilisers, which is sub-optimal in relation to agricultural productivity, can be explained by behavioural biases, such as procrastination, present bias and being 'at least partially naïve' (Duflo et al., 2011: 2352). They rely on their findings to criticise Schultz's theory of the profit-maximising farmer for failing to predict that farmers make decisions that do not maximise their profits. These are few examples of a growing body of experimental research in development economics that is set to identify biases to individual decision-making and to provide behavioural solutions to incentivise individuals to make better decisions (Banerjee and Duflo, 2011; World Bank, 2015).

While recognising the material constraints and the lack of rationality in decision-making processes, the focus of behavioural approaches in development economics remains on individual decisions and the mental models that can explain individual decision-making. Critics pointed out that this theoretical framing moves development economics and policy further away from the structures of poverty (Fine et al., 2016). In addition, how power relations – along the lines of gender, race, class, age, nationality and so forth – shape decision-making is neglected (*Ibid.*), suggesting a disregard for earlier literature on intra-household resource allocation that provides insights on gendered aspects of decision-making. Behavioural insights brought to development economics do not illuminate how the material constraints shape the availability, or lack of, of a set of options.

In sum, this brief overview of decision-making in development economics identifies three bodies of work that have been influential for the conceptualisation of decisions: the 1960s' farm household economics, the 1990s' intra-household resource allocation studies and the contemporary behavioural development economics. We observe that, across all these streams, the historical, social and political economic context in which decisions are made takes a minor, if not totally absent, role. The analysis of intra-household bargaining power as well as behavioural approaches provide insights for the conceptualisation of constrained decisions: individuals do not make rational and free decisions but operate within constrained environments, such as the gendered household or a materially-deprived setting. However, even in these cases, the investigation of the constraints' sources is limited and ahistorical, and the focus mostly remains on the individuals making the decisions rather than the environments they live in. Despite the theoretical differences and apparent lack of crossover among these bodies of literature, we argue that they have all contributed to frame questions on decisions and reproduced the fundamental belief that human behaviour is best understood as a sequence of individualised decisions. In the remainder of this article, we challenge this idea by showing that decisions are so complex and constrained that it is misleading to refer to some practices as resulting from individual decisions.

4. Study settings and methods

The findings presented in this paper are based on triangulation of primary and secondary data, which were collected and analysed between 2015 and 2017. Primary data collection consisted of a student survey and qualitative focus groups with schoolchildren in five Junior High Schools (JHS) in the Accra Metropolitan Area. Interviews with representatives of key governmental, non-governmental organisations and the food industry combined with analysis of secondary data provide a context for analysing our primary results by identifying the wider food environment. A summary of the methods for primary data collection is provided in the table below.

Table 1. here

We selected two public and two private schools, to capture respondents from different socio-economic backgrounds.³ Kanda Estate Cluster is a state school attended by many children from Nima, a low-class neighbourhood in Accra (Aguda 2009), and Association International School (AIS) is a top private school charging tuition fees in USD. The key characteristics of the four selected schools are summarised in the table below.

Table 2. here

We conducted a survey of school children with 139 randomly selected respondents across the schools. The questionnaire contained questions of child's assets, food security, dietary diversity, food decision-making, nutrition knowledge and food consumption. A sub-sample of children, 63 overall, took then part in focus groups on food acquisition practices, food advertising, food knowledge and decision-making.

A combination of conventional and innovative quantitative indicators allows our results to be both benchmarked against other studies and to uncover insights typically obscured. We use two conventional indicators of food consumption and diet quality: adapted Food Consumption Score (FCS) and dietary diversity score. The FCS is based on the consumption frequency of particular food groups – vegetables, fruit, dairy, meat/fish and sugar – in the seven days before the interview. We follow the World Food Programme's (WFP) guidelines to assign weightings to each food group, broadly based on the nutrient content (WFP 2008).⁴ The dietary diversity score, which is a proxy for diet quality, asks respondents to list all foods and drinks had in the past 24 hours. We extended this tool by asking respondents to indicate who decided to have each food listed. The answers were classified in four categories: *self*, *mother*, *father* and *other*. This indicator provides a measure of children's perceptions on who makes decisions on what they eat in the course of the day.

Our methodology sets out first to understand who is involved in food choices and when food consumption happens. We specifically seek to uncover how much influence mothers or other adults have over children's food choices. Second, we seek to embed the decision-making process in the context where it takes place and identify material aspects of daily life as well as commodified food systems that shape food provisioning.

5. Do children make decisions on food?

Data on decision-making on food paint an interesting picture. Schoolchildren in our sample have a high degree of autonomy in making decisions on food, especially for the part of the day they spend at school, as shown in table 3 below. For the first and second food event of the day,⁵ which in many cases are likely to be breakfast and lunch, over 70 per cent of children said that they were responsible for deciding what to eat.⁶ Children's decision-making on food gives way to others'

³ The proxy indicator for child socio-economic status is a child asset index based on possession of seven assets – books, tablet, computer, dvd player, smartphone, video game console and own bedroom. We used principal component analysis (PCA) as a weighting technique, thus following Filmer and Pritchett (2001).

⁴ This is an adapted version of WFP's FCS because we have data for five food groups instead of nine.

⁵ Food event refers to any food or meal listed chronologically by the respondent – for some respondents, the first food event may be breakfast and for others a mid-morning snack or lunch. The reason for including the first four foods/meals out of maximum six mentioned is that only 19.4 per cent of the sample listed a fifth food/meal and only 5.8 per cent had six foods/meals in the day before the interview. However, half of the sample had four foods/meals and more than eighty per cent had between one and three meals.

⁶ We conducted all survey interviews on a day between Tuesday and Friday to capture consumption on a school day and ensure internal consistency within the sample.

decision-making in the course of the day, reflecting greater consumption of home-based meals in the evening. However, it is important to note that children continue to make decisions on what to eat even for those food events that tend to be home-based, such as dinner.

Table 3. here

Children are decision-makers on food also at home. If we look at survey data on food sources and match it with decision-making data, it is clear that children make food-related decisions also when they are at home. The table below reports food sources for the first four food events had in the day before the interview. We can see that, for example, in the morning half of the sample sourced food at home and nonetheless over 70 per cent of the children made decisions on what food to have.

Table 4. here

In structured interviews, when children were asked if they could describe the ingredients used to make a dish, it emerged that many were well aware because they either cooked or helped their mothers with cooking, or else were sent to buy foodstuff at the market. Throughout structured and focus group interviews, we repeatedly encountered a story of replacing a full meal with Milo, often referred to as ‘tea’, when parents are not around or other occasions when children need to make food for themselves at home. Milo is a Nestlé drink made of chocolate malt and particularly popular among children and adolescents. Indeed most focus group participants considered Milo to be a type of food mostly for children because, as it was for example mentioned at Osu Presby Girls, the advertisement targets children directly by promoting Milo as a source of energy for sports. It is common habit to accompany Milo with a piece of bread and have it for breakfast, but, as our findings reveal, it can also replace a meal when children need to make food for themselves at home.

Mothers are the second most important group involved in making decisions on children’s food consumption. Children explained that their mothers prepare food for them or monitor what they eat during the day. In the case of AIS, maternal or parental supervision of children’s food intake at school is facilitated by the availability of a pre-set menu, based on which parents can select what food their children are going to eat at school. In the other schools this type of monitoring is more difficult as children buy food from food vendors at school or in the surrounding areas.

Fathers and other family members, captured by the ‘other’ category, are mentioned a few times. It appears that for the children in our study mothers are the key reference point for matters that relate to food. Fathers or other relatives, such as aunts and older siblings, seemed to have a role only in replacement of mothers. In a few occasions, children mentioned not living with their parents as the reason why an aunt or an older sister, for example, was responsible for preparing food or giving them money – i.e. *chop* money – to buy food at school. However, we did not explore household composition and intra-household decision-making dynamics in detail at this was not the focus of the study.

Our food decision-making indicator is simple and straightforward. It captures respondents’ perceptions on making decisions on what to eat, which paint a picture of high degree of child autonomy in food decisions both at school and at home. However, the decision-making process entails different aspects and people, which may not be captured by simple questions on decision-making. The focus groups were essential to highlight some aspects of complexity of decision-making. First, it is necessary to distinguish between decisions on purchase, preparation and consumption. Although children make food consumption decisions, these are often constrained

by the amount of money they have access to and/or by the food options purchased by someone else. When children reported that they are responsible for what they eat at home, this means at times that they select foods from those available at home and previously bought by somebody else in their household. Children from poorer backgrounds reported being regularly sent to local food markets to buy food for the household, however they seldom had responsibility to select specific foods. During the school day, children purchase and consume food autonomously, yet children in low and middle wealth groups⁷ receive *chop* money to meet their food needs. The amount of *chop* money ranges from 1 GHS to 10 GHS per day, with poorer families struggling to hand out this money to their children every day.⁸ It is common practice among food vendors to price food by single items, rather than by meal, so that children can select as many food items as they can afford.

Second, decisions may be influenced by others in indirect ways. For example, parents' decisions to buy specific foods may be driven by the desire to please their children's taste, as found in a study of adolescents in Botswana (Brown et al., 2015). However, some indulgence may be compensated for by parents' efforts to make children's diets healthier. For instance, in the focus groups, some children mentioned that their parents, mostly mothers, made recommendations on what foods they should or should not eat. This was particularly referred to the issue of food safety, which receives significant policy attention in Ghana (Ministry of Health [MOH], 2013). Some children reported that their mothers tell them to avoid certain types of street food over hygiene concerns. Children reported varying degrees of compliance or deviation from their mothers' recommendations. In particular, respondents taking part in the focus group on food knowledge at Osu Presby did not believe the food sold by the vendors in the school's premises was hygienic, but they nonetheless bought it because they did not have any alternative.

Disentangling these facets of decision-making is essential to embed the decision-making process in the wider food environment and socio-economic context. The data provides some evidence that targeting mothers to improve child nutrition fails to take account of children's autonomy in food consumption. However, a glimpse of the multiple layers of decision-making also shows that both children's and mothers' decisions are determined by material constraints, motivations and social relations. Material living conditions, partly captured by measures of wealth, influence food decisions not only directly, through the amount of chop money that parents can afford, but also indirectly, through shaping social relations between children and their families and division of labour. Parents may act out of altruism and influence children's food consumption in varying directions, towards healthier and less healthy diets, a finding that highlights the contradictions that characterise food practices. The policy context also shapes issues for public concern and debate. Thus, we see how the individuality of food decisions is difficult to trace.

6. Material living conditions and food provisioning in the urban space

With the complexity of decision-making processes becoming apparent, we turn our attention to the food environment to embed food consumption patterns within the range of available options and the processes of food provisioning. In the course of our study, we observed that how children go to school shapes their food acquisition and consumption practices. Children may walk to school or be driven by their parents, in a few cases they take the *trotro* (public mini-bus) or the school bus, if the school provides one. A clear distinction can be drawn between children who go to public

⁷ All children except for those at AIS receive chop money from their families.

⁸ In our sample, five children said they do not always receive chop money every day.

schools and those who go to private ones, with the former mostly walking to and from school and the latter being driven by their parents or other relatives.

Table 5. here

In focus group interviews, we investigated the patterns of urban mobility and food acquisition. Consider, for instance, Anita's school day, which presents similar patterns to those of other children in her school, Osu Presby. Anita lives and goes to school in the same neighbourhood, Osu. Anita wakes up in the early morning, between 5 and 6am, and walks to school. She does not have breakfast at home but buys it on her way to school. In our survey sample, 32 per cent of children do not have breakfast at home and these children concentrate in the two poorest wealth groups. We can tentatively explain this pattern in terms of housing conditions and parents' lack of resources and time to prepare breakfast at home. In front of schools like Osu Presby, Kanda Estate and Jack & Jill there are street food vendors selling a variety of ready-to-eat food, including porridge. Anita often buys porridge from the food stall in front of her school. During school time, she might have another meal bought from the food vendors at school or in front of it. Then she walks back home and occasionally goes to the Osu food market to buy supplies for the family. Her friends are in Osu and much of her daily life takes place in this neighbourhood, where she has access to food mostly through street vendors and food markets.

In comparison, consider the school day of Richard, a pupil at AIS. Richard has breakfast at home, like all children we interviewed in his school. He is then driven to school by his parents and during the school day he gets all his meals from the school canteen, which are pre-paid on a monthly basis by his family. The canteen at AIS is run by catering company that offers three daily options, including *local* and *continental* meals. It is common for children to make a distinction between Ghanaian food and international ones. Richard may use his pocket money to buy additional snacks.⁹ At the end of the school day, he is picked up by his parents and occasionally goes with the mother to do grocery shopping in the shopping mall, where he may get a fruit juice and a doughnut. Richard's mobility across Accra and food consumption is regulated by the parents and his family has access to expensive foods at supermarkets. The survey data confirms that street food is particularly common among poorer children: 60 and 75 per cent of children in the two poorest quintiles, respectively, had bought street food at least once in the week before the interview.

These stylised stories show that children from poorer and wealthier backgrounds live the urban space in strikingly different ways, both materially and culturally. Socio-economic status determines where people live, their means of transport, the types of food outlets they go to and the food they can afford. Although poverty has fallen, inequality has been on the rise in Ghana (Cooke et al., 2016; Agyre-Tettey et al., 2018). A handful of studies looking at inequality in Accra suggest that the history of migration, the emergence of a middle class, the precarious housing market for the poor and the scarcity of decent employment are all contributing to rising inequality in the city (Maxwell et al., 2000; Arku et al., 2012; Obeng-Odoom, 2012). In this context, food consumption is polarised and we find that poorer children have worse food security, dietary diversity and food consumption (Authors, forthcoming). The organisation of the urban space, such as housing and location of food outlets, and people's experience of it reflect socio-economic inequality, which in turn shapes food provisioning practices.

7. The Food Industry and the Appropriation of Nutrition narratives

⁹ Pocket money differs from chop money because it is given to children weekly and does not serve the specific purpose to meet the child's basic needs, such as food and transportation.

Similarly to other African countries, Ghana has promoted non-traditional and horticultural export crops for the past three decades, which has led to growing reliance on food imports (Ouma, 2015; Amanor and Chichava, 2016). Ghana is a net importer of wheat and rice, and imports of milk, dairy products, poultry, sugar, vegetable oils and fruits have been on an upward trend since the 1990s (Cudjoe et al., 2010; FAOSTAT). However, we do not have comprehensive data on imports of packaged foods, which would be helpful to gain a better macro picture on food availability in the country. At the micro-level, it is clear that packaged and processed foods, such as soft drinks, powdered drink mixes and snacks, are important components of the diets of urban consumers. The World Health Organisation (WHO) survey of students in Ghana finds that 55.8 per cent of children in Junior High Schools have carbonated drinks on a daily basis (WHO, 2012). We find that consumption of packaged foods, such as soft drinks and snacks, is high across all wealth groups in our sample and peaks in the middle wealth group (see Authors, forthcoming for more detail).

Children have aspirations for foods that are widely advertised and associated with modernity. The distinction between *local* and *continental* food used colloquially by children is useful to trace how material conditions shape cultural relations to food. Poorer children have greater access to local food, such as kenkey, fufu, light soup and so forth, through street vendors and at home, but they know of continental food, such as pizza or KFC burgers, through advertisement and occasional consumption. Children maintain a taste for local food, which is the food they consume more often, while showing aspiration for modern foods. Taste for continental food, as an alternative to local food, is particularly visible among the middle wealth groups, who are arguably those situated at the interface between *the* local and *the* continental in the globalised food system. Taste and consideration for local foods was much lower, almost absent, among the wealthiest children, whose diets are heavily reliant on continental food.

Nonetheless, these categories are fluid and contextual and dietary change is far from being a linear process. The domain of relatively affordable carbonated drinks and snacks sheds light on the fluidity and lack of linearity that define food consumption practices. These foods are commonly consumed by children in low and middle wealth groups. They are enticing because they are sugary, widely advertised and bearers of global modernity. Children could recall food adverts and explain why specific adverts attracted their attention, with Indomie noodles being the most mentioned advert. Indomie noodles are ubiquitously visible in Ghana: they are sold in supermarkets, food markets and prepared with eggs, vegetables and seasoning by street vendors. Indomie are a product of Indofood, a multinational company engaged in both consumer branded products and agribusiness. Indofood's agribusiness operations have been growing since the late 1990s and now focus mostly on palm oil production. At present, Indoagri, the agribusiness branch of Indofood, owns 301,926 hectares of palm oil plantations and is involved in the manufacturing and commercialisation of branded edible oils.¹⁰ Perhaps unsurprisingly, refined palm oil is the second ingredient of Indomie noodles, just after wheat.

The food industry ensures availability, affordability and desirability of its products. An important channel for availability we observed in Ghana is the use of both formal and informal ways for distribution. Packaged foods are not only found in supermarkets, but also in food markets, mobile and stationary food stalls. Companies that target children as consumers rely on networks of distribution that can reach children at school. An example is provided by Fan Milk, whose mobile

¹⁰ Information reported on Indofood's website <http://www.indofood.com/>.

street vendors often operate in the areas surrounding schools.¹¹ Fan Milk snacks are popular among both poorer and richer children, although they are sourced in different ways: from street vendors for the former and from the canteen or supermarkets for the latter. Affordability is also crucial to ensure purchase. Food companies resort to strategies such as miniature packaging in order to maximise their ability to tap into most segments of the market. In our mapping of food products and outlets across Accra, it was clear that the same branded product is packaged in a range of sizes, then sold in different food outlets. Street vendors sell the smallest packages, with one-portion powdered drink mix, such as Nestlé's Milo, being a popular food stall item.

Furthermore, the food industry makes widespread use of nutrition and health messages in Ghana. Indomie noodles' advertisements often claim that the product contains vitamins, Milo is publicised as providing energy, and Fan Milk's main slogan is 'Nutrition on the go!'. There is no doubt food companies have a visible presence in nutrition narratives in Ghana. In an interview at Nestlé Ghana, the Public Affairs Manager emphasised the company's commitment to addressing the multiple burdens of malnutrition through engagement in corporate social responsibility (CSR) activities. An example is the Nestlé Healthy Kids Programme, launched in Ghana in 2011, which is a collaboration between the company, the Ministry of Education and the Food and Nutrition Science Department at the University of Ghana to provide school teachers with nutrition knowledge they can pass onto the pupils in their classrooms. The nutrition education programme does not sponsor Nestlé food products but makes use of a branded kit that children use during their lesson on healthy diets and physical exercise. Physical exercise was also at the core of the health training offered by Fan Milk to mobile street vendors, although it is evident that these workers need to walk or cycle for substantial amounts of time as part of their job. In an interview with Fan Milk Deputy Managing Director, it emerged that, as much as the company invests in nutrition messaging, the interviewee was sceptical that consumers buy Fan Milk products for the nutrition claims. This is confirmed from the perspective of young consumers in our study, who expressed scepticism at the credibility of health and nutrition messages. Some children explained that food companies are compelled to make their products look good, although they may not be healthy. Additionally, children said nutritional concerns were not a key driver in their consumption, with taste being a more important factor.

The co-existence of consumers' scepticism of nutrition messaging, companies' pervasive use of it and widespread consumption of these foods present an interesting puzzle, if we consider this picture through the framework of consumer demand. However, we argue that this is a misleading perspective. Food companies use and shape the nutrition discourse, as documented in other studies on the expansion of nutrition advice and the nutraceutical industry (Scrinis, 2013; Sathyamala, 2016). The appropriation of nutrition narratives is a vehicle for furthering the commercialisation of health promotion, which, as O'Laughlin (2016) sets out, is one of the ways through which capital is expanding in global public health. In Ghana, food companies have a dominant voice on nutrition and health, particularly with regard to emerging problems of obesity and non-communicable diseases. However, these claims are subject to little scrutiny and left to consumers to assess whether they are credible. A core component of the process of commercialisation of health promotion is individual decision-making as these nutrition narratives promote beliefs that access to healthy diets is within the power of the consumer, who can choose to buy nutritious foods. The food industry plays a pivotal role in the process of 'pathologising' the consumer (Metha, 2013) through producing a range of products, some of which are cheap,

¹¹ FanMilk is a Danish multinational selling a range of frozen snacks in Ghana since the 1960s. FanMilk was acquired by Danone and Abraj Group in 2013.

unhealthy and enticing, while reinforcing a discourse that empowers consumers to make better decisions. The influence of capital over the formation of food knowledge exposes the pitfalls of focusing on nutrition education, incentives and behaviour change to tackle malnutrition.

8. Conclusions

This paper explored how socio-economic relations shape food decision-making among schoolchildren in Ghana. We showed how a focus on individual decisions and consumer demand explains very little of food provisioning and consumption practices and rather obscures important determinants of it. We make three key findings, which bear implications for the understanding of decision-making processes.

First, the food decision-making process entails different moments – e.g. acquisition, preparation, consumption – and consumption decisions seldom encompass control over the entire process, but they are rather informed and constrained by other decisions on acquisition and preparation. In addition, multiple people are involved in the decision-making process and have contradictory influences over it. Decisions are negotiated outcomes that reflect social and gender relations of power among the actors involved. Second, socio-economic status shapes where people live, their means of transportation, the food outlets they have access to and the foods they can afford. In the context of growing inequality, the organisation of the urban space and people's daily experiences of it reflects diverging material living conditions and determines food acquisition practices. Third, globalised food systems shape material and cultural relations to food, with the food industry playing a key role in ensuring availability, affordability and desirability of food while also using nutrition narratives to deepen processes of commercialisation of health promotion. Thus, these socio-economic and political foundations of the food environment show how food consumption practices are constrained and the scope for consumer choice is rather limited.

Children's participation in decision-making processes disproves the assumption that children are bearers of adults' decisions, with important implications for theory and policy. Children's integration in food decision-making occurs through patterns of intra-household division of labour and through belonging to a distinct consumer group in the commodified food system. Keeping in mind the conceptualisation of decisions as negotiated outcomes, the study of decision-making, intra-household relations and child nutrition should consider the role of children as *decision-makers* rather than as *decision-takers* only.

With the poor increasingly at risk of being undernourished and obese, our findings are important because they show how food choice is embedded and constrained. This is a critical case study to understand contemporary dynamics of malnutrition in the urban Global South, where the intersection between rising inequality and the unscrutinised concentration of power in the hands of the food industry contributes to polarising material conditions of daily life and to forging cultural relations to food. Furthermore, the material constraints, the concentration of capital and power, and the manipulation of discourse strongly suggest that conceptualisations of human behaviour as a sequence of individual decisions is rather unconvincing. Practices may not result from decisions and, particularly in the domain of nutrition and health, the misguided relevance of individual responsibility carries harmful consequences in that it unjustly punishes individuals while deepening the problems.

Table 1. Summary of methods for primary data collection

Phase	Method	Purpose
I	Student survey on food consumption and nutrition knowledge (sample = 139 schoolchildren enrolled in JHS)	To gather information on children's <ul style="list-style-type: none"> - Food security - Dietary diversity and decision-making - Food preferences and nutrition knowledge - Food consumption
II	Focus groups with sub-groups of survey respondents	To deepen understanding of <ul style="list-style-type: none"> - Intra-urban mobility and food acquisition - Exposure to food advertising and food preferences - Nutrition knowledge and food consumption
Cross-cutting	Semi-structured interviews with key stakeholders (ministries, international organisations, food industry, school and street food vendors)	To gather information on <ul style="list-style-type: none"> - Children's food environment - Key stakeholders' relations to nutrition narratives - Food and nutrition policy

Source: Compiled by authors

Table 2. Key characteristics of four selected JHS in Accra Metropolitan Area

School	Kanda Estate Cluster ¹	Osu Presby ²	Jack & Jill	Association International School (AIS)
Location	Nima/Kanda	Osu	Roman Ridge	Airport Residential Area
Type	Public	Public	Private	Private
Student-teacher ratio	11.8	15.7	13.6	5.4
Access to functioning library	No	Yes (Girls) No (Boys)	Yes	Yes
Access to functioning computer lab	No	No	Yes	Yes
Minimum teaching equipment	Yes	Yes	Yes	Yes
Minimum school infrastructure	No	No	Yes	Yes

Source: Compiled by authors

¹ Kanda Cluster includes four schools sharing the same courtyard, these are: Ring Road East, Kanda 1, Kanda 5 and Kanda A.M.A. Data on student-teacher ratio are given as the average across the four schools.

² Osu Presby includes Osu Presby Girls and Osu Presby Boys. Data on student-teacher ratio are given as the average between the two schools.

Table 3. Decision-making on food in the previous day (percentages)

Who decided what you should eat?	Self	Mother	Father	Other	Not had this meal	Total
1st food event	71.2	24.5	-	4.3	-	100
2nd food event	74.8	17.3	0.7	6.5	0.7	100
3rd food event	51.1	27.3	1.4	3.6	16.5	100
4th food event	23.7	19.4	1.4	2.2	53.2	100

Source: Compiled by authors

Table 4. Food sourcing on the previous day (percentages)

Where did you get this food from?	Home	School	Street	Restaurant	Not had this meal	Total
1st food event	54.0	25.2	20.9	-	-	100
2nd food event	28.1	50.4	20.9	-	0.7	100
3rd food event	43.9	32.4	6.5	0.7	16.5	100
4th food event	28.8	10.1	7.9	-	53.2	100

Source: Compiled by authors

Table 5. Means of transportation to go to school, by school type (percentages)

		Foot	Trotro	School bus	Car	Total
Public schools	Osu Presby	87.5	12.5	-	-	100
	Kanda Estate	100	-	-	-	100
Private schools	Jack & Jill	9.7	19.4	3.2	67.7	100
	AIS	6.3	-	6.3	87.5	100

Source: Compiled by authors

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