

Cooking up an injustice: A critical examination of the role of cooking programs in reducing health inequalities

Van Kesteren, R. & Evans, A.

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Cooking up an Injustice? A Critical Examination of the Value of Traditional Cooking Programs in Reducing Health Inequalities

By Rosa van Kesteren, PhD; Adrian Evans PhD

Abstract

The way we eat is one of the biggest causes of preventable illness and death, particularly for those with socioeconomic disadvantages. Public health interventions often include courses teaching 'healthy' cooking 'from scratch' as an affordable means of dietary improvement, but this paper questions the effectiveness of the delivery of some of these programs. Using an in-depth case study of a leading healthy cooking programme, including ethnographic observations of seven cooking classes and interviews with 35 participants and three members of staff, we show that the impact of this programme was limited by its adherence to 'nutrient-focused' framings of healthy eating. Teaching based on this framing created confusion by separating nutrients from foods, hampered embodied learning of skills and ultimately failed to address how learnings could be integrated into the everyday lives of participants. Unable to engage with inequities in access, preparation time, food environments or other sociocultural influences on eating habits, healthy cooking courses built on similarly nutricentric foundations will never be able to address the major barriers to healthy eating faced by their target participants. As an alternative, we propose that cooking courses grounded in a more 'practice-based' understanding of healthy eating would be more effective at changing dietary behaviours, especially in areas of higher deprivation.

Introduction

Unhealthy diets are the number one cause of preventable death globally, placing a huge strain on healthcare systems around the world (Forouzanfar et al., 2015; Tremmel et al., 2017). In the UK dietary health accounts for 18% of preventable deaths and costs the NHS more than alcohol consumption, smoking and physical inactivity combined (PHE, 2017; BMA, 2016). There is evidence that dietary health is a bigger problem in lower socioeconomic groups (Maguire & Monsivais, 2015; Martikainen et al., 2003; Whybrow et al. 2017; Mishra, 2004) contributing to healthy life expectancy discrepancies of up to 19 years between high and low deprivation areas of the UK (PHE, 2018). When empty calories from ultra-processed foods are so cheap relative to fruits and vegetables (Jones et al., 2014; Monteiro et

al., 2013), courses teaching cooking 'from scratch' are a common public health intervention to reduce this healthy eating gap and make healthier eating affordable for those on a tight budget (Engler-Stringer, 2010; Rees et al., 2012).

A review of healthy cooking interventions in the UK found that 'immediate objectives for these initiatives usually include both... increasing participants' knowledge... and developing food related skills' (Rees et al., 2012; 8). For the course studied in this paper this typically involved teaching participants which foods they should be eating in terms of the nutrients they contain and cooking examples of 'healthy' dishes. However, a recent literature review indicates that cooking knowledge and skills map badly onto the determinants of cooking in everyday life, in which myriad non-conscious factors such as time

availability, cultural background and resource availability are more prominent (Mills et al., 2017). Even if teaching what to eat is done well, courses which ignore how participants could incorporate new knowledge into the particular personal contexts and habits which determine much of what they eat (Sobal & Wansink, 2007; Cohen et al., 2008; Moldovan & David 2012; van't Riet et al., 2011) will be limited in effectiveness.

In this paper we consider how this mismatch between the determinants of everyday cooking behaviours and teaching on some healthy cooking courses is linked to fundamental underlying assumptions about how healthy eating is understood. In particular, we identify two competing poles when it comes to discourses of healthy eating; a *nutrient-focused* discourse, in which healthy eating is viewed as conscious, rational consumption of the correct nutrients and a *practice-based* understanding, in which healthy eating is viewed as the largely non-conscious repetition of healthy food 'practices'. Section two sets out how these approaches to healthy eating set the agenda very differently, with each prompting different understandings of what healthy eating requires and how it is connected to the rest of our lives. Section three then outlines our methodology, which focuses on an in-depth case study of a leading publicly funded healthy cooking course that sought to improve dietary health for people living in socially and economically deprived areas. Section four contains our findings, that, despite some embodied and contextualised justification, the course we examined still privileged an abstract nutrient-based approach to healthy eating. This was evident in three respects: the fragmentation of food into abstract nutrients (section 4.1), the reduction of embodied know-how to rational learning (section 4.2) and the abstraction of eating from everyday contexts (section 4.3). We argue that such fragmented, disembodied and decontextualized engagement with healthy eating compromises the depth and retention of learning and pays scant attention to how teachings could be incorporated into busy lives and repeated frequently enough to have health impacts (Verplanken & Wood, 2006). Focusing on nutrients does not address inequities in food access, preparation times, food environments or other sociocultural influences on eating habits. Accordingly, courses based on this foundation are hamstrung to even engage with most of the barriers to healthy eating faced by those they aim to help. In this respect we believe that practice-based understandings of healthy eating, which put repeated

everyday habits at their heart and specialise in engaging with the embodied and situated nature of routine action (see for example Warde, 2005; Shove et al., 2012), could add a valuable perspective to public health interventions through facilitating a more integrated and less cognitive approach to increasing healthy cooking habits. This approach could yield particular benefits in deprived areas, where socio-material contexts are likely to be a bigger barrier to forming healthy eating habits (Fraser & Edwards, 2010; Darmon & Drewnowski, 2015; Maguire et al., 2015) making engaging with them all the more important if trying to effect change in these groups.

What is healthy eating? A comparison of nutrient-focused and practice-based understandings

As presented in most guidelines, healthy eating concerns which foods and nutrients we should consume so that our bodies can function well (Scrinis, 2013; Delormier et al., 2009). This 'nutrient-focused' understanding tends to break down foods into their component nutrients, and determines their healthiness on these grounds – categorised in a way which cannot be observed by unaided senses (Cannon, 2003). Scrinis, a prominent critic of this reductionistic 'nutritionism' points out that 'engaging with food at the level of nutrients can be described as a more abstract way of encountering food since it involves a less embodied level of engagement... Nutritional categories, such as protein and carbs, are... abstract concepts' (2013, p.30). Prioritising the effects of these abstract nutritional categories on our bodies also ignores other manifestly important ways in which eating impacts our health, including the mental health effects of food consumption, as when people use comfort foods to self-medicate for mental discomfort (Polivy & Herman, 2005; Dallman et al., 2005), and the interplay between eating and other aspects of life, as when commensal eating reduces social isolation – combating one of the most important factors increasing our propensity to illness (Bofill, 2004; Cacioppo & Cacioppo, 2014).

Despite these limitations, a nutrient-focused agenda is still prevalent in mainstream public health approaches to healthy eating. Although a lot of nutrition education bodies and campaigns are moving away from naked nutritionism,¹ many national healthy eating guidelines across the world still treat healthy eating as a knowledge-

¹ see for example the 'nutrition educator competencies' of the SNEB (2020) and Contento's 'Nutrition Education' textbook (2020).

based problem which is best corrected by advice abstracted from the particularities of daily lives (Scrinis, 2013; Cannon, 2003; Nestle, 2007). These approaches also tend to overlook the importance of socio-material contexts, addressing the public as individual choosing agents while the vastly different circumstances in which they 'choose' are almost never addressed (Townshend et al., 2010). As pointed out by Traverso-Yepez and Hunter, 'the predominant public health approach to counteract the increasing number of food-related health issues continues to be fragmented and focused on individuals' (2016, p.1). This approach is capitalised on and perpetuated by food industry stakeholders (Clapp & Scrinis, 2017) and corroborated by public health whenever they fail to connect eating advice with eating environments (Mayes, 2014).

A practice-based approach is antithetical to this abstract and compartmentalised worldview (Reckwitz, 2002; Nicolini, 2012) and has already made wide-ranging contributions to cooking scholarship (van Kesteren & Evans 2020; Truninger, 2011; Halkier, 2009; McCabe & de Waal Malefyt, 2015). Though a broad church, all theories of practice start with the premise that our actions are fundamentally situated and habitual – conducted with minimal conscious attention rather than rationally decided upon from scratch every time. Rather than a product of individual choice, actions are seen as performances of wider social practices which happen when certain factors align (Shove et al., 2012). Depending on how 'weak' or 'strong' the version of practice theory being articulated, human intention is a small to non-existent factor in action and should not be the focus of intervention (Warde, 2014; 285-6). Proponents prioritise practical action, elevating 'doing over thinking, practical competence over strategic reasoning, mutual intelligibility over personal motivation and body over mind' (Warde, 2013, p.18). Recent developments in cognitive science support this focus, arguing that routine everyday conduct is typified by automaticity rather than conscious decisions or voluntary action (Thaler & Sunstein, 2008; Kahneman, 2011).

According to an oft-cited definition, a 'practice' can be understood as:

a routinised type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, things and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational

knowledge. A practice... [forms] a 'block' whose existence necessarily depends on the existence and specific interconnectedness of these elements, and which cannot be reduced to any one of these single elements (Reckwitz, 2002, pp.249–250).

As this makes clear, no matter how apparently simple they seem, every 'action' is really a social practice made up of a host of mostly non-cognitive elements. From a practice-based approach, cooking healthily is not merely the result of *individual* choice, desire, knowledge or will-power but rather the result of complex social, economic and cultural factors which intertwine to provide the context for the emergence of routinised behaviours. As such, one cannot hope to promote healthier cooking without first understanding the central role of elements beyond conscious mental control in shaping cooking practices (Maller, 2015; Delormier, 2009, p.221).

Considering eating in terms of the practices involved implies a view of healthy eating which goes beyond nutrient swallowing (Crotty, 1993) to understand situated performances of eating and the web of practices through which foods are consumed. Healthy eating habits are built up through repeated embodied performances in particular material and social landscapes which they cannot be comprehended without (Lake & Midgley, 2010). For instance, Steinberg suggests that a decrease in cooking and cooking skills must be understood as part of a wider shifting of practices constituting modern individualistic Americans (Steinberg, 1998).

While the majority of policy approaches to improving healthy eating stem from a nutrient-focused 'just tell people what to eat' understanding, there are notable exceptions. For instance the Canadian dietary guidelines have a whole section on the importance of creating 'supportive environments for healthy eating' (Health Canada, 2019) and the first principle of the Japanese health and nutrition information is 'enjoy your meals' (Japan Dietetic Association, n.d.). A poignant example of a more practice-based approach can be found in the Brazilian healthy eating guidelines which take care to ground advice within everyday realities (Ministry of Health of Brazil, 2014). Instead of encouraging healthy eating by teaching individuals about the nutrients they should be swallowing and which foods contain them, the Brazilian guidelines have a much wider view of how eating relates to health and what kind of information is important when trying to change behaviours. Their

advice is presented in terms of sensible food types and meals commonly eaten rather than nutrients, with guidelines validating the embodied pleasures of eating and putting context to the fore by advising people to cook and eat together; how to shop mindfully and to be sceptical of food advertising (Monteiro et al., 2015).

In the following sections we will consider how these different approaches to healthy eating played out in a publicly funded cooking course with the main aim of increasing healthy eating among participants living in areas of high deprivation.

Methodology

This paper draws on original empirical research, including ethnographic observations of seven cooking courses and interviews with 35 participants and three members of staff, to present an in-depth case study of a leading publicly funded healthy cooking programme. This programme offered free nine-week healthy cooking courses which aimed to develop 'cooking skills,

understanding of healthy eating and build confidence in cooking a meal from scratch on a budget.' The programme was run by a charity and funded by the Public Health team of the local council on the understanding that the courses would focus on recruiting people from the most deprived areas (deciles 1 and 2 of the Index of Multiple Deprivation - IMD). Two years into the three-year programme 1,400 people had enrolled on the course, with pre-course surveys (run by the course provider) showing that 51% of participants lived in the most deprived 20% of areas in the UK. These pre-course surveys also show that participants from the highest IMD areas reported significantly lower levels of fruit and vegetable consumption than participants from the lowest IMD areas, providing further justification for targeting this group (see fig. 1). The course participants were predominantly women (70%) and of White (61%) or Asian (25%) ethnicity, with a wide spread across age groups and 21% of participants who considered themselves disabled.

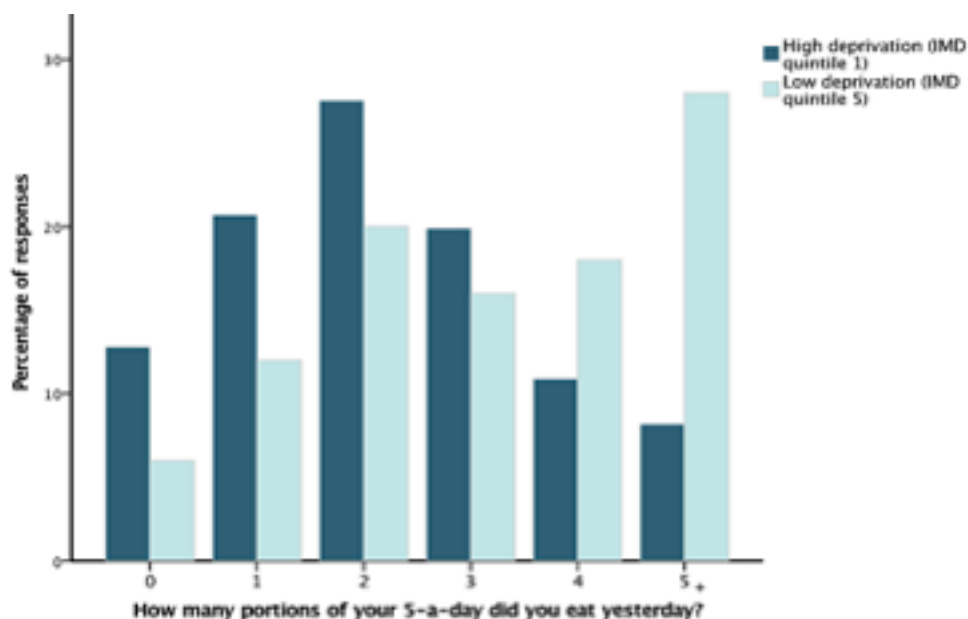


Fig. 1: Initial consumption of fruit and vegetables: low and high deprivation area participants

As the aim of the research was to find out how different approaches to healthy eating play out in healthy cooking courses and how they might affect the potential impact of such interventions, it was crucial to understand the situated reality of how teaching was carried out on the courses as well as the experiences of participants. Accordingly, we opted for a qualitative approach combining ethnographic class observations with interviews of participants and staff.

We studied seven classes in total: one class from each of the seven 'identical' nine-week courses which the programme was running during the time period. Additionally, each of the classes that were studied were in a different week of the course content. This sampling strategy enabled us to avoid basing inferences on the peculiarities of one particular teacher or generalising from just one of the nine weekly classes which made up the full course. Observations of each of these

classes provided insights into how teaching was carried out, the environments and materials that supported teaching and the ways in which participants responded to different exercises. Detailed field notes were written relating to course content, delivery, context and any discernible reactions of participants. To complement these observations, the perceptions and experiences of participants were elicited by means of structured interviews conducted as they were participating in the cooking sections of their classes - while their experience of the course was most vivid and disruption to the class was lowest. Five participants from each group (35 in total) were interviewed, selected according to purposive sampling (due to the make up of the classes many of the participants were either not confident in themselves, not comfortable enough with English or had special educational needs which may have made responding difficult). As the interview was relatively short and was introduced by the class facilitator all of those selected agreed to participate. Interview questions covered their perceptions of the course and how it fitted with the contexts of their lives, touching on what they had enjoyed about the course, what could be improved, whether they had used anything learnt in their own cooking and the barriers to eating more healthily at home. Additional interviews were conducted with three staff members, one of whom had developed the course and two who currently taught on it. This enabled us to gain further insights into how the course was developed and practiced.

All interviews were transcribed in full and combined with the ethnographic field notes. The data was then analysed by identifying key themes that were both theoretically informed (drawing on the insights of practice-theory) and empirically driven (by observing trends and patterns within the data). Engaging with the data from a practice-theoretic perspective helped to focus attention on the importance of the everyday material practices that were both observed during the cooking sessions and described during the interviews. Using this perspective, a close analysis and coding of the data was undertaken, which resulted in the identification of several key themes. Through an iterative process, these themes were grouped into three broader themes: the fragmentation of foods into abstract nutrients, the disembodiment of cooking knowledge and the abstraction of eating from everyday lives. Different types of data were particularly insightful for different themes. For instance, the ways in which the cooking courses neglected the embodied

aspects of cooking and fragmented foods into nutrients, came out strongly in the ethnographic field note data, while the mismatch between the course content and the biggest barriers to healthy cooking in participants' everyday lives came out particularly strongly in the interviews.

We believe that the combination of methods used were sufficiently rigorous to yield reliable insights into the nature of these cooking classes, however it is worth noting some limitations. First, as with any in-depth qualitative research, the data collected would have been affected by the primary researcher's identity (white, middle class, female in her 30s) and her pre-existing biases. This would have shaped the types of in-depth observational data collected, which would be influenced by the researcher's affectual, perceptual and conceptual attunement to the activities occurring: there is a cultural politics of noticing, which we, as researchers, are not immune from. Second, the structured nature of the participant interviews might have constrained the types of information that participants volunteered and may have overlooked some aspects which more unstructured interviews might have brought out. Third, the fact that participant interviews were held in public, during a class, may also have limited what participants were willing to share and how honest or critical they were willing to be, creating a positive bias in favour of the status quo of the course.

Results and discussion

The research revealed that, whilst certain aspects of the cooking programme did take into account the embodied and situated nature of healthy eating, the vast majority of course content was dominated by an abstract nutrient-focused understanding. Aspects of a practice-based understanding of how healthy eating happens were present – especially when the courses were being planned. For instance, the course organisers took care to run embodied tasting sessions as part of recruitment, to hold courses at venues that the majority of participants already visited for other reasons and to synchronise the timing of sessions with existing everyday practices such as collecting children from school. However, despite acknowledging the importance of fitting in with everyday lives for recruitment and explicitly targeting populations on the basis of socioeconomic contexts, this understanding fell away in class teaching. Under the constraints and pressures of teaching the embodied and contextual aspects of the course content were

the first to be jettisoned, with what remained being mostly abstract nutritional communication and dishes partially made in circumstances bearing no resemblance to those of participants. The only attempt to address the particular difficulties of eating healthily in contexts of deprivation was a budgeting session based around exercises demonstrating that brand name products cost more than own brands. The following sections consider how the nutrient-focused understanding of healthy eating which came to dominate this course hampered the uptake of teachings by categorising foods on the basis of single nutrients; failing to give due consideration to embodied skills; and failing to take account of the broader social and material contexts of cooking and eating.

Fragmenting foods into abstract nutrients

The dangers of understanding healthy eating by fragmenting whole foods into abstract nutrients have been explored at length by Geoffrey Scrinis in his consideration of what he refers to as the 'ideology of nutritionism'. Within this ideology the health benefits of foods are reduced to consideration of the individual nutrients that they contain, which results in a simplified, fragmented and decontextualised account of healthy eating (Scrinis, 2013; 31). Dietary intervention on this basis 'tends to be delivered one nutrient at a time, since any more complicated advice regarding multiple nutrients and their interactions would be harder to convey, and might not be readily understood by members of the lay public' (Scrinis, 2013; 33). This one nutrient at a time approach was characteristic of many of the information provision sections on the cooking course we examined, which had themed sessions addressing fat, salt or sugar content in isolation: 'we've done sugar, so it's just fat this time' (Anna, course leader).

While ranking foods according to single nutrient content made for simple exercises and generated some surprising challenges to healthy eating rules of thumb, casting aside the other elements of the healthiness of a foodstuff was often misleading and of questionable use to the participants. Partly this stems from the fact that the proportion of nutrients in a diet don't change in a vacuum: as foods are combinations of fats, proteins and carbohydrates, varying the intake of one nutrient will alter the intake of other nutrients, with low fat diets often increasing the proportion of carbohydrates consumed (Scrinis, 2013; 30). This was exhibited in course exercises. For instance when they were 'just

going to look at fat' content (Rachel, course leader) participants were surprised to find out that malt loaf was equal to an orange, leading one mother to exclaim 'oh, that's good I eat quite a lot of that!' (Ruth). What it lacked in fat it made up for in sugar, but the isolation of one nutrient meant a cake looked equal to fruit in health terms. Similarly, one participant 'thought low fat mayonnaise was still bad for you, but seeing it's the same as fruit changed that' (Esme). Nuts also came out badly for being high in fats, as all fats were treated equally in this exercise and 'anything oily I try to avoid now' (Leanne). Yet cutting down fat by switching potentially life-extending nuts (Ros, 2017) for high-carbohydrate malt loaf surely isn't a dietary improvement any health professionals would recommend.

The exercise about healthy breakfasts provided another example of how quantified and isolated nutrients are often misleading determinants of the healthiness of a food. In this exercise a 'healthy breakfast' was reduced to the easily compartmentalised and quantified question of which breakfast cereals contain the most sugar, demonstrating how complex foods can become 'interchangeable vehicles for the delivery of isolated nutrients' under this approach (Scrinis, 2013; p.29). The revelation at the end of this exercise was that 'muesli is the worst because dried fruits are packed full of sugar' (Isobel, course leader), ranking even 'worse than Frosties' (Anna, course leader). However, the course leader's conclusion that 'you think it's going to be good for me, but it's not' (Isobel) paid no heed to other benefits of muesli which are missing in rolled corn coated in refined sugar, or that sugar in the form of dried fruits is digested differently and provides one of your '5-a-day' (Oyebode et al., 2014).

Pulling strands out of a complex tapestry of eating and teaching that reducing certain nutrients will make it healthy misses an opportunity for participants to get a qualitative understanding of what healthy foods are, rather than an abstract notion of which nutrients they should contain less of (Cannon, 2003). As Sabeena told me, 'what they teach us still uses unhealthy foods - cheese isn't healthy... but they still teach us dishes with it in - although we put only a little bit in in the class we'll put more in when we make them at home.' Such fragmented nutritionist approaches can be disorienting and shift consumers away from more holistically healthy foods: as Emma learnt, 'I had the idea of healthy just being fruit and veg, but it's not.' This is supported by

Cornish (2012) who found that consumers could not tell the difference between nutritionally poor products making isolated nutrient claims and products rich in a range of nutrients, resulting in substituting fruits and vegetables for products which were nutritionally poor overall. This may be especially likely given the 'nutritional cacophony' (Fischler, 2011) created by conflicting dietary information under nutrient-based views of healthy eating. As one confused participant commented 'it conflicts with what my husband's been advised about sugars being bad and moving towards fats... [but] here it's all about reducing fats' (Xena).

In contrast, using a more practice-based understanding of healthy eating to develop a cooking course would place far less focus on cognitive education and the acquisition of detailed nutrient knowledge about specific foods. Rather than trying to find counterintuitive examples of nutrient 'surprises' it would use simple rules of thumb based on food type differences which people can easily perceive (Cannon, 2003; Jacobs & Orlich 2014) and foods they already know are healthy, such as eating 'more fruit and vegetables' which a recent literature review found to be 'consistently recognised as part of healthy eating' by research participants (Paquette, 2005). Our dietary problems are not primarily due to a *lack of knowledge* about healthy eating but rather due to a series of economic, social, cultural and habitual barriers to *practicing healthy eating*. People are eating fewer vegetables despite knowing they are healthy – and this is particularly true among poorer demographics (Michie et al., 2008). A practice-based healthy cooking course would reassure participants that they already know enough about healthy foods and instead focus on addressing the embodied and contextual elements which underlie the knowledge-action gap at the heart of our healthy eating problem.

Disembodying cooking knowledge

Abstracting knowing from doing is another feature of a nutrient-focused understanding of healthy eating which was prevalent on the cooking programme. Although the course had been designed to include 'hands on' cooking sessions alongside more traditional rationalistic teaching techniques, with the time pressures of running sessions the embodied aspects were often neglected (clearly viewed as the bottom of the hierarchy of educational importance) and little effort was made to connect the cooking skills taught to the types of cooking skill that would be useful in everyday lives.

Despite understanding the importance of learning through doing and engaging the senses when developing an embodied skill such as cooking (Trubek & Belliveau, 2009; Giard, 1998) the embodied aspects of classes quickly dropped away. Grounding teaching in bodily experience has been found to offer greater chances to 'thoroughly comprehend concepts, to transfer the learned content, and to maintain this content longer in their memory' (Ionescu & Vasc, 2014; 278; Cook et al., 2008). This seemed to have been taken on board when class exercises were designed, and many of the instructions for running them showed the effort that had gone into making them both physical and participatory. As one of the design team explained, 'we try to use real things because people remember it then... people say 'it's just numbers so it doesn't mean anything – but when it's *actually there* you get it' (Lucy). However, when delivered the sessions offered far less potential for embodied learning and the facilitators did not even have the kit needed for several of the exercises. A characteristic example of stripping out the body was the exercise about breakfast cereals and sugar. As originally envisaged, this exercise involved an exploration of portion size through asking participants to physically pour their 'normal portion' from a cereal box into a bowl, followed by pouring the portion recommended on the box and comparing the difference. It was also supposed to involve moving actual cereal boxes around and showing/pouring the sugar content of the different cereals into pots so that participants could visualise it. Yet, in practice it involved laminated not to scale pictures instead of packets, no physical engagement at all and instead of showing the sugar content the facts were read out one cereal at a time in grams or sugar cubes. This made it harder to visualise, remember, compare the differences or translate into life, especially for those with language or literacy barriers who are likely to be disproportionately represented in low-income households (Holmes et al., 2008).

Cooking on the course also had few links to the skills participants might need to develop to make cooking at home easier. For instance, Linda was chopping garlic with the skin still on it when the facilitator intervened and showed her how to prepare garlic with a garlic crusher. However, she had previously told me she didn't have a garlic crusher at home and would never buy one as they were too much bother to wash up. Preparing garlic in this way as part of the course made her no more able to prepare garlic as part of cooking at home. Similarly,

while half of the course time was spent cooking, an undoubtedly embodied activity and an improvement on cooking demonstrations (Levy & Auld, 2004), little attention was given to how this might encourage replication in everyday life. As every dish was cooked only once and each participant performed only half of it (as participants were paired) cooking on the course involved none of the repetition which is so important in habituating new behaviours which typically 'emerge from repeated actions in stable contexts' (Wood et al., 2002; 1282).

Skilled practices like cooking require apprenticeship and repetition - the more they are repeated the more easily they are conducted and the more effective they are (Sutton, 2006; Mauss, 1973). Shedding the embodied aspects of the healthy eating exercises and cooking in a fragmented way in unfamiliar contexts ignores how 'thoroughly performative' skills like cooking develop (Parsons & Cappelini, 2013; 17). Learning through disembodied exercises and a small amount of decontextualized doing presents a slim bridge of increased competence which will struggle to find ground in cooking habits without support from other elements. Without repetition, as Dora said, 'You learn all these things and then you forget!'

In contrast to the approach outlined above, a more practice-based cooking course would focus more on developing embodied skills and ensuring new habits. While there may be doubts as to what extent skills can be usefully habituated within the confines of a cooking course, translation into daily healthy eating practices might be promoted in various ways. As Jane noted, being taught in 'more of a kitchen environment like at home instead of the middle of the library' would help. A practice-based cooking course taking concerns over transferable embodied learning seriously could also involve using the same materials and competences participants would use at home, surveying what equipment people use and focusing on those, having a list of basic cooking techniques which people will repeat on different dishes throughout the course or talking about how new skills might translate into making existing food preparations healthier. For example, cooking courses developed by the University of Vermont focus on repeating hands-on activities such as knife skills, so that participants improve over the classes and researchers found that these provided 'a powerful means of gaining embodied knowledge about all aspects of meal preparation' (Wolfson et al., 2017; 153).

Abstracting eating from everyday life

Finally, and most strikingly, the abstraction of what is consumed from the context of how certain foods come to be consumed means that nutrient-focused courses cannot address some of the major obstacles to healthy eating. The main barriers to habituating healthy cooking are not rational knowledge about what we should be eating, nor techniques of food preparation (though both play a part) but how healthy cooking practices fit with the rest of our lives (Short, 2006; Butland et al., 2007). The importance of this fit with existing practices was noted when considering how to reduce barriers to course attendance, with classes planned to fit in with the schedules and locations of existing practices such as collecting children from school. Yet the fit with established patterns of life fell away in teaching practice, when food preparation was considered in isolation. Most of the elements of the cooking course experience were quite different from how participants would cook in daily life, such as the environment, the equipment, the demands on their time and the family needs their cooking had to meet. During classes the engagement with challenging daily lives was limited to the (reasonable) assumption that most people feel busy so the dishes should be quick. We believe that this was a missed opportunity and that marginalising context in this way reduced the overall effectiveness of the course, since the likelihood of fostering long-term healthy eating habits depends on the fit between what participants learn in the classroom and their established patterns of living.

This was highlighted in the participant interviews. When asked about barriers to healthy eating most responses fell outside the remit of a course focused on more abstract understandings of healthy eating. The concerns of participants often focused on the food environment, particularly the perceived expense of healthier foods and the omnipresence of processed foods. Priah complained that 'in McDonalds you can get a whole meal for not much more than a bag of salad in a supermarket. Veg is expensive... compared to bad quality meat and frozen foods' and Leanne noted that 'unhealthy food is everywhere – the adverts make it look really yummy and they don't mention health.' Chris, a relative of one of the participants and a resident of one of the low IMD areas laughed heartily when asked if he was interested in the course, saying 'I don't cook! why would I want to? Just give me the number of a good takeaway!' These responses chime with the findings of recent studies about

the growing price gap between 'healthy' and 'unhealthy' foods (Jones et al., 2014; Darmon & Drewnowski, 2015), the dominance of processed foods in shelf space and promotions (Monteiro et al., 2013; House of Commons Health Committee, 2017) and the ready availability of fast foods (Maguire et al., 2015; Fraser & Edwards 2010).

Participants also talked about food and eating as being deeply embroiled with the social context of their lives. The omelette was Leela's favourite dish, even though she is allergic to eggs and had never actually eaten an omelette, because her 'guests and kids really like when I make them!' As Whittington concluded, 'however solitary it may be in itself, family cooking draws on shared technologies, shared expectations of the appropriate, and aims to please a social group' (2001; 8). These social and material contexts will have a huge impact on the uptake of course learnings. Gemma said she hadn't made anything from the course because her kids didn't like the sound of them and 'I don't want to make something I eat on my own!' On the other hand Gladys, an older woman, said that she wasn't going to act on any learnings from the course because it wasn't worth it cooking for just herself: 'being on my own I don't cook - I get ready meals and don't even read the traffic light labels!' As Giard writes, 'doing-cooking is the medium for a basic, humble and persistent practice that is repeated in time and space, rooted in the fabric of relationships to others and to one's self' (1998;157).

By limiting themselves to educating choice in a vacuum, decontextualized nutritional health interventions create inequitable self-blame for those whose contexts mitigate against healthy eating habits – just the people the course was designed to help. As Graham et al. found, 'the primary focus... on the nutritional qualities of food has little salience for people experiencing food insecurity' concluding that we must shift to an emphasis on 'structural causes of food poverty in order to avoid stigmatising people living with food insecurity through no fault of their own' (2016, p.6). Without engaging with the elements of eating practice beyond individual knowledge an increased awareness could just increase the gap between awareness and action. As Chinua reported, since starting the course 'I'm more conscious of what to eat... though I'm still being careless with what I eat... it's of my own doing'. Other determinants of action disappear leaving only self-blame for inaction.

Successfully incorporating new learnings into established routines of life is going to be hard for any course to

achieve but a shift towards addressing healthy eating as a practice could help. Accepting that cooking and eating practices change not through exposure to knowledge per se but 'through individuals making connections between forms of knowledge that link their own, everyday and experiential environments' (Hobson, 2003; 107) puts the emphasis on courses helping participants make these links. This could involve talking about existing practices which healthy cooking might be compatible with, such as entertaining children during the school holidays. Or the course could start by surveying elements of participant's eating practices, such as: what equipment do they have, who do they cook for regularly, which basic food preparation competences they use regularly and what they perceive to be the main barriers to healthy eating/cooking. Instead of ignoring these complicating elements classes could build on them: ensuring the compatibility of the equipment used in cooking demonstrations with the equipment that participants already own or are likely to use, talking about the (potential) links between course learnings and what participants are already doing, discussing the practical barriers people face and working on ways they might be overcome during the course. Classes could also try to enhance what Korthals refers to as the capabilities to connect meal preparations with their life plans (2016; 415) or work with participants to develop specific plans for when and how they intend to act differently (Verplanken & Faes, 1999).

Conclusion:

Situated doing over abstract knowing

We have argued that healthy cooking courses should focus on integrating their teachings with the existing non-cognitive aspects of participants' lives rather than cognitive education to stand the best chance of (re) forming ingrained habits and achieving long term health impacts. Furthermore, we have argued that healthy cooking courses that adopt a decontextualised, nutrient-focused approach run the risk not just of failing to foster new habits but also of alienating those very groups that they would seek to help by stigmatising them as either ignorant or lacking in willpower rather than engaging with the grossly unequal socio-material contexts in which cooking and eating occurs.

The paper focused on an in-depth case study of a publicly funded healthy cooking programme with over 1,400 participants and found that, despite attempts to engage with cooking as a situated practice in course recruitment

and design, in the classes themselves teaching was dominated by a decontextualised, nutrient-focused understanding of healthy eating. This understanding was liable to create confusion from the false segmentation of nutrients from foods, from hampering embodied learning of skills and from ultimately failing to address how learnings might be integrated into the everyday lives of participants. Taken together these factors limited the potential of the course to foster long term behaviour change. As focusing on nutrients 'does not address inequities regarding access to healthy foods or the time and knowledge required to prepare food from scratch... [or] the powerful impact of food environments... or other sociocultural influences on eating practices' (Traverso-Yepez & Hunter, 2016, p.1) courses with a nutrient-focused orientation are hamstrung to even engage with most of the barriers to healthy eating faced by their target participants.

If healthy eating interventions are serious about disproportionately benefiting the health of those living in the most deprived circumstances, they cannot proceed by passing down information and showcasing dishes in isolation. We cannot begin to foster the long term (re)formation of cooking habits and to achieve lasting health benefits unless we also attend to the embodied and context-dependent nature of cooking and eating. Interventions which seek to understand the non-cognitive factors involved in the cooking and eating practices of participants and prioritise engaging with these deeply embedded habits offer more promising and equitable routes to healthier eating. That being said, perhaps the main contribution of a practice-based understanding of healthy eating is to underline that cooking classes will never be able to make up for the inequalities and unhealthy infrastructures which pervade the non-cognitive aspects of our eating habits. If the world around us continues to be shaped in the support of consuming empty calories (Jones et al., 2014; Monteiro et al., 2018; Swinburn et al., 2011; Darmon & Drewnowski, 2015) healthy cooking interventions will struggle to effectively change behaviours - no matter how practice-based their orientation.

References

- BMA (2016) *Obesity and diet-related illness in the UK*. London: British Medical Association. <https://www.bma.org.uk/-/media/files/pdfs/news%20views%20analysis/press%20briefings/obesity%20and%20dietary%20related%20illness%20in%20the%20uk.pdf> [accessed 06.02.2020]
- Bofill, S. (2004). Aging and loneliness in Catalonia: The social dimension of food behavior. *Ageing International*, 29(4), 385-398. (Newton et al., 2015)
- Butland, B., Jebb, S., Kopelman, P., McPherson, K., Thomas, S., Mardell, J., & Parry, V. (2007). *Foresight. Tackling obesity: future choices. Project report*. London: Government Office for Science. Retrieved 31 August 2017 from: <https://www.gov.uk/government/collections/tackling-obesities-future-choices>
- Cannon, G. (2003). *The fate of nations: Food and nutrition policy in the new world*. Caroline Walker Trust.
- Clapp, J., & Scrinis, G. (2017). Big food, nutritionism, and corporate power. *Globalizations*, 14(4), 578-595.
- Cohen, D. A., & Farley, T. A. (2008). Eating as an automatic behavior. *Preventing Chronic Disease*, 5, 1.
- Contento, I. R., & Koch, P. A. (2020). *Nutrition Education: Linking Research, Theory, and Practice*. Jones & Bartlett Learning.
- Cook, S. W., Mitchell, Z., & Goldin-Meadow, S. (2008). Gesturing makes learning last. *Cognition*, 106(2), 1047-1058.
- Crotty, P. (1993). The value of qualitative research in nutrition. *Annual Review of Health and Social Sciences*, 3, 109-118.
- Dallman, M. F., Pecoraro, N. C., & la Fleur, S. E. (2005). Chronic stress and comfort foods: self-medication and abdominal obesity. *Brain, behavior, and immunity*, 19(4), 275-280.
- Darmon, N., & Drewnowski, A. (2015). Contribution of food prices and diet cost to socioeconomic disparities in diet quality and health: a systematic review and analysis. *Nutrition Reviews*, 73(10), 643-660.
- Delormier, T., Frohlich, K. L., & Potvin, L. (2009). Food and eating as social practice—understanding eating patterns as social phenomena and implications for public health. *Sociology of health & illness*, 31(2), 215-228.
- Engler-Stringer, R. (2010). The domestic foodscapes of young low-income women in montreal: cooking practices in the context of an increasingly processed food supply. *Health education & behavior*, 37(2), 211-226.
- Fischler, C. (2011). The nutritional cacophony may be detrimental to your health. *Progress in Nutrition*, 13, 217-221.

- Forouzanfar, M. H., Alexander, L., Anderson, H. R., Bachman, V. F., Biryukov, S., Brauer, M., & Delwiche, K. (2015). Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 386(10010), 2287-2323.
- Fraser, L. K., & Edwards, K. L. (2010). The association between the geography of fast food outlets and childhood obesity rates in Leeds, UK. *Health & place*, 16(6), 1124-1128.
- Giard, L. (1998). Doing cooking. In De Certeau, M., Giard, L., & Mayol, P. (eds) *The Practice of Everyday Life Volume 2: Living and Cooking*. University of Minnesota Press.
- Graham, R., Stolte, O., Hodgetts, D., & Chamberlain, K. (2016). Nutritionism and the construction of 'poor choices' in families facing food insecurity. *Journal of health psychology*, 1359105316669879.
- Halkier, B. (2009). Suitable cooking? Performances and positionings in cooking practices among Danish women. *Food, Culture & Society*, 12(3), 357-377.
- Health Canada (2019, January). Canada's Dietary Guidelines: for Health Professionals and Policy Makers. Retrieved from <https://food-guide.canada.ca/en/guidelines/>
- Hobson, K. (2003). Thinking habits into action: the role of knowledge and process in questioning household consumption practices. *Local environment*, 8(1), 95-112.
- Holmes, B., Dick, K., & Nelson, M. (2008). A comparison of four dietary assessment methods in materially deprived households in England. *Public health nutrition*, 11(5), 444-456.
- House of Commons Health Committee (2017). *Childhood obesity: follow-up*. House of Commons, London. <http://www.parliament.uk/healthcom>.
- Ionescu, T., & Vasc, D. (2014). Embodied cognition: challenges for psychology and education. *Procedia-Social and Behavioral Sciences*, 128, 275-280.
- Jacobs, D. R., & Orlich, M. J. (2014). Diet pattern and longevity: do simple rules suffice? A commentary. *The American journal of clinical nutrition*, 100(Supplement 1), 313S-319S.
- Japanese Dietetic Association (n.d.). *Japanese Health and Nutrition information*. <https://www.dietitian.or.jp/english/health/>
- Jones, N. R., Conklin, A. I., Suhrcke, M., & Monsivais, P. (2014). The growing price gap between more and less healthy foods: analysis of a novel longitudinal UK dataset. *PLoS One*, 9(10), e109343
- Korthals, M. (2016). Ethics of dietary guidelines: nutrients, processes and meals. In Olson, I., , Sofia M. Araújo, S. M. & Fátima Vieira, M. (eds) *Food futures: ethics, science and culture*. Conference proceedings. Wageningen Academic Publishers. 21 - 28
- Lake, A. A., & Midgley, J. L. (2010). Food policy and food governance: Changing behaviours. In Lake, A.A., Townshend, T.G. & Albanides, S. (Eds.), *Obesogenic environments*. Chichester, West Sussex: Blackwell Publishing. 165-182
- Levy, J., & Auld, G. (2004). Cooking classes outperform cooking demonstrations for college sophomores. *Journal of nutrition education and behavior*, 36(4), 197-203.
- Maguire, E. R., Burgoine, T., & Monsivais, P. (2015). Area deprivation and the food environment over time: A repeated cross-sectional study on takeaway outlet density and supermarket presence in Norfolk, UK, 1990–2008. *Health & place*, 33, 142-147.
- Maguire, E. R., & Monsivais, P. (2015). Socio-economic dietary inequalities in UK adults: an updated picture of key food groups and nutrients from national surveillance data. *British Journal of Nutrition*, 113(1), 181-189.
- Maller, C. J. (2015). Understanding health through social practices: performance and materiality in everyday life. *Sociology of health & illness*, 37(1), 52-66.
- Marmot, M., & Bell, R. (2012). Fair society, healthy lives. *Public health*, 126, S4-S10.
- Martikainen, P., Brunner, E., & Marmot, M. (2003). Socioeconomic differences in dietary patterns among middle-aged men and women. *Social science & medicine*, 56(7), 1397-1410.
- Mauss, M. (1973). Techniques of the body. *Economy and society*, 2(1), 70-88.
- Mayes, C. (2014). Governing through choice: Food labels and the confluence of food industry and public health discourse to create 'healthy consumers'. *Social Theory & Health*, 12(4), 376-395.
- McCabe, M., & de Waal Malefyt, T. (2015). Creativity and cooking: Motherhood, agency and social change in everyday life. *Journal of Consumer Culture*, 15(1), 48-65.
- Michie, S., Jochelson, K., Markham, W. A., & Bridle, C. (2008). *Low-income Groups and Behaviour Change Interventions*. London: The Kings Fund.
- Mills, S., White, M., Brown, H., Wrieden, W., Kwasnicka, D., Halligan, J., & Adams, J. (2017). Health and social determinants and outcomes of home cooking: a systematic review of observational studies. *Appetite*, 111, 116-134.
- Ministry of Health of Brazil (2014). *Dietary Guidelines for the Brazilian Population*. http://189.28.128.100/dab/docs/portaldab/publicacoes/guia_alimentar_populacao_ingles.pdf
- Mishra, G. D., Prynne, C. J., Paul, A. A., Greenberg, D. C., & Bolton-Smith, C. (2004). The impact of inter-generational social and regional circumstances on dietary intake patterns of British adults: results from the 1946 British Birth Cohort. *Public health nutrition*, 7(6), 737-744.

- Moldovan, A. R., & David, D. (2012). Features of automaticity in eating behavior. *Eating behaviors*, 13(1), 46-48.
- Monteiro, C. A., Cannon, G., Moubarac, J. C., Levy, R. B., Louzada, M. L. C., & Jaime, P. C. (2018a). The UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing. *Public Health Nutrition*, 21(1), 5-17
- Monteiro, C. A., Cannon, G., Moubarac, J. C., Martins, A. P. B., Martins, C. A., Garzillo, J., & Levy, R. B. (2015). Dietary guidelines to nourish humanity and the planet in the twenty-first century. A blueprint from Brazil. *Public health nutrition*, 18(13), 2311-2322.
- Nestle, M. (2013). *Food politics: How the food industry influences nutrition and health*. University of California Press.
- Newton, J. N., Briggs, A. D., Murray, C. J., Dicker, D., Foreman, K. J., Wang, H. & Vos, T. (2015). Changes in health in England, with analysis by English regions and areas of deprivation, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*, 386(10010), 2257-2274.
- Nicolini, D. (2012). *Practice theory, work, and organization: An introduction*. Oxford university press.
- Oyebode, O., Gordon-Dseagu, V., Walker, A., & Mindell, J. S. (2014). Fruit and vegetable consumption and all-cause, cancer and CVD mortality: analysis of Health Survey for England data. *J Epidemiol of Community Health*, 1.
- Parsons, E., & Cappellini, B. (2013). Competent Cooking? Applying Practice Theory in the Kitchen. *European Advances in Consumer Research*, 10, 16-18
- Paquette, M. C. (2005). Perceptions of healthy eating: state of knowledge and research gaps. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, S15-S19
- PHE (2017). Chapter 2: major causes of death now and how they have changed. In *PHE, Health Profile for England 2017*. <https://www.gov.uk/government/publications/health-profile-for-england/chapter-2-major-causes-of-death-and-how-they-have-changed>
- PHE (2018). Chapter 5: Inequalities in Health. In *PHE, Health Profile for England 2018*. Public Health England. <https://www.gov.uk/government/publications/health-profile-for-england-2018/chapter-5-inequalities-in-health>
- Polivy, J., & Herman, C. P. (2005). Mental health and eating behaviours: a bi-directional relation. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, S43-S46.
- Rayner, M., & Scarborough, P. (2005). The burden of food related ill health in the UK. *Journal of Epidemiology and Community Health*, 59(12), 1054-1057.
- Reckwitz, A. (2002). Toward a theory of social practices: a development in culturalist theorizing. *European journal of social theory*, 5(2), 243-263.
- Rees, R., Hinds, K., Dickson, K., O'Mara-Eves, A., & Thomas, J. (2012). Communities that cook: a systematic review of the effectiveness and appropriateness of interventions to introduce adults to home cooking. In *Database of Abstracts of Reviews of Effects (DARE): Quality-assessed Reviews*. Centre for Reviews and Dissemination (UK). <http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=3322> [accessed: 29.01.2020]
- Ros, E. (2017). Eat Nuts, Live Longer. *Journal of the American College of Cardiology*, 70(20), 2533-2535.
- Short, F. (2006). *Kitchen secrets: The meaning of cooking in everyday life*. Berg.
- Shove, E., Pantzar, M., & Watson, M. (2012). *The dynamics of social practice: Everyday life and how it changes*. Sage.
- SNEB (2020) *Nutrition Educator Competencies*. Society for Nutrition Education and Behaviour. [online] <https://www.sneb.org/nutrition-educator-competencies/> [accessed: 17.12. 2020]
- Sobal, J., & Wansink, B. (2007). Kitchenscapes, tablescape, and foodscapes influences of microscale built environments on food intake. *Environment and Behavior*, 39(1), 124-142.
- Sutton, D. (2006). *Cooking skill, the senses, and memory: the fate of practical knowledge*. *Sensible Objects: Colonialism, Museums and Material Culture*, 5, 87-102
- Steinberg, S. (1998). Bubbie's Challah. In Scapp, R. & Seitz, B. (eds) *Eating Culture*. SUNY Press. Suchman, 295-297.
- Swinburn BA, Sacks G, Hall KD, McPherson K, Finegood DT, et al. (2011) The global obesity pandemic: shaped by global drivers and local environments. *Lancet* 378: 804–814.
- Townshend, T. G., Ells, L., Alvanides, S., & Lake, A. A. (2010). Towards transdisciplinary approaches to tackle obesity. In Lake, A.A., Townshend, T.G. & Alvanides, S. (Eds.), *Obesogenic environments*. Wiley-Blackwell. 11-20.
- Tremmel, M., Gerdtham, U. G., Nilsson, P. M., & Saha, S. (2017). Economic burden of obesity: a systematic literature review. *International journal of environmental research and public health*, 14(4), 435.
- Trubek, A. B., & Belliveau, C. (2009). Cooking as pedagogy: engaging the senses through experiential learning. *Anthropology News*, 50(4), 16-16.
- Truninger, M. (2011). Cooking with Bimby in a moment of recruitment: Exploring conventions and practice perspectives. *Journal of Consumer Culture*, 11(1), 37-59.
- van Kesteren, R., & Evans, A. (2020). Cooking without thinking: How understanding cooking as a practice can shed new light on inequalities in healthy eating. *Appetite*, 147, 104503.

- van't Riet, J., Sijtsema, S. J., Dagevos, H., & De Bruijn, G. J. (2011). The importance of habits in eating behaviour. An overview and recommendations for future research. *Appetite*, 57(3), 585-596.
- Verplanken, B., & Faes, S. (1999). Good intentions, bad habits, and effects of forming implementation intentions on healthy eating. *European Journal of Social Psychology*, 29(56), 591-604.
- Verplanken, B., & Wood, W. (2006). Interventions to break and create consumer habits. *Journal of Public Policy & Marketing*, 25(1), 90-103.
- Warde, A. (2005). Consumption and theories of practice. *Journal of consumer culture*, 5(2), 131-153.
- Warde, A. (2013). What sort of a practice is eating? In (33-46). Shove, E. and Spurling, N. (eds.) *Sustainable practices: Social theory and climate change*. Routledge. 33-46.
- Warde, A. (2014). After taste: Culture, consumption and theories of practice. *Journal of Consumer Culture*, 14(3), 279-303.
- Whittington, R. (2001). *Learning to strategise: problems of practice*. SKOPE Research Paper 20.
- Whybrow, S., Hollis, J. L., & Macdiarmid, J. I. (2017). Social deprivation is associated with poorer adherence to healthy eating dietary goals: analysis of household food purchases. *Journal of Public Health*, 40(1), e8- e15.
- Wolfson, J. A., Wolfson, J. A., Bostic, S., Bostic, S., Lahne, J., Lahne, J. & Harvey, J. (2017). A comprehensive approach to understanding cooking behavior: Implications for research and practice. *British Food Journal*, 119(5), 1147-1158.
- Wood, W., Quinn, J. M., & Kashy, D. A. (2002). Habits in everyday life: thought, emotion, and action. *Journal of personality and social psychology*, 83(6), 1281-1298.

Author Bios

Dr Rosa van Kesteren is a postdoctoral researcher at Coventry University (UK). Her research explores ways that a practice-based approach to food provision, preparation and consumption can be used to strengthen healthy eating interventions towards more socially and environmentally just outcomes. She lives in a community of 7 people built in part around shared cooking and meals.

Dr Adrian Evans is an associate professor at The Centre for Agroecology Water and Resilience (CAWR) at Coventry University. His current research seeks to understand food and drink consumption practices, especially in relation to exploring the ethics, sustainability and resilience of different types of food consumption. He has a particular interest in understanding the embodied nature of food consumption practices. He also researches the cultural and political embeddedness of different markets for food and drink and he explores the interconnections between food consumption and systems of provision, distribution and ownership.

Declaration of Interest

No potential conflict of interest