

‘A holistic approach’: incorporating sustainability into biopedagogies of healthy eating in Sweden’s dietary guidelines

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Abstract Dietary guidelines can be considered a pedagogical tool, designed to promote healthy eating at the population level. In this study, we critically examine the biopedagogies implicated in Sweden’s official dietary guidelines. Published in 2015, these guidelines take a potentially innovative ‘holistic approach’ to food and eating, addressing the challenge of formulating dietary advice that considers both human health and environmental concerns. Applying Bacchi’s ‘What’s the problem represented to be?’ approach, we interrogate how the guidelines frame the interplay of public health concerns and environmental concerns in making food choices. We find that the biopedagogies of sustainable eating, as presented in these guidelines, implicate the subject position of the *ideal eater*. The ideal eater values sustainability, has high cultural capital, and draws on both taste and nutritional knowledge to make good food choices. However, while the ideal eater is expected to be aware of environmental issues, these are incorporated into the ideal eater’s choices only in addition to the primary concern of health. Thus, although the guidelines frame a ‘holistic approach’ as the solution to both health and environmental concerns, in cases where health and environmental priorities conflict, the guidelines’ biopedagogies of sustainable eating align with earlier biopedagogies of healthy eating.

Keywords: dietary guidelines, WPR approach, sustainable eating, healthy eating, biopedagogies, taste

Introduction

National dietary guidelines are used in many countries as a means to guide the population to healthier eating habits and, often, to a more physically active lifestyle. The same goes for Sweden’s dietary guidelines (Mattisson *et al.* 2012), on which the present study focuses. An additional feature of Sweden’s current dietary guidelines, published in 2015, is the inclusion of an environmental perspective, making Sweden one of the first countries to incorporate environmental concerns into healthy eating advice (Brugård Konde *et al.* 2015). As a guide to the

public on what and how to eat, dietary guidelines can be conceptualised as *biopedagogies* – instructions on how to live (Harwood 2009). Biopedagogies relate to the Foucauldian notion of biopower, such that dietary guidelines can be considered technologies of government that shape and regulate body-related practices through discourse (Dean 2010, Foucault 1991). In this paper, we analyse Sweden's dietary guidelines through a biopedagogies lens, focusing on how these guidelines construct idealised modes of eating.

Official dietary guidelines: origins and contemporary principles

The origins of official dietary advice can be traced to the turn of the 20th century, when state interests in population health grew in parallel with developments in biochemical and nutritional science (Qvarsell 2005, Santich 2005). In the early 20th century, workers' energy and protein needs were central to nutritional guidance (Aronson 1982). When vitamins were discovered in the 1930s, dietary advice shifted towards recommending micronutrient-rich 'protective foods' for bodily health (Davis and Saltos 1999, Mudry 2009, Santich 2005). However, during the second half of the 20th century, when overconsumption and 'lifestyle' diseases became key concerns, public health discourses moved towards individualising dietary habits and responsabilising people for their health more generally (Crawford 1980, Qvarsell 2005). Accordingly, dietary advice shifted again, from a focus on 'food as fuel' to a focus on restricting the intake of energy and saturated fats (Davis and Saltos 1999, Santich 2005).

Social scientists have critiqued dietary advice published across the 20th century for being too reductive and quantitatively framed, and specifically for focusing on nutrients and their functional effects on physiological health. These critics have argued that a quantified and nutrient-focused presentation of dietary advice reduces knowledge about healthy eating to the biochemical components of food and thereby ignores diversity in values and reasons to eat (Mudry 2009, Scrinis 2013). As a response to reductive dietary advice, and to foster clearer communication with the public, the World Health Organization has been advocating for official dietary guidelines to be based on food choices and avoid the technical language of nutrition (World Health Organization/Food and Agriculture Organization of the United Nations [FAO/WHO] 1998). Accordingly, food-based dietary guidelines have been published in most European countries and advice is generally presented through referring to five or six food groups (Montagnese *et al.* 2015).

The environmental implications of food production and consumption pose a new challenge to the development of dietary guidelines (Garnett 2014, Nelson *et al.* 2016, Willett *et al.* 2019). Environmentally oriented discussions focus on how to eat sustainably, and researchers are increasingly interested in food waste (Priefer *et al.* 2016, Thyberg and Tonjes 2016). In parallel, sustainability discourses promote ethical consumption, for example, through purchasing organic or locally grown food, as a guiding value in food choice (Rebrovick 2015). Incorporating environmental aspects into dietary advice requires engagement with a new set of sources and rationales, and some countries – of which Sweden is among the first – have recently introduced environmental perspectives into their official dietary guidelines (Fischer and Garnett 2016, Jelsøe 2015, Lang and Barling 2013). Thus, the recent addition of environmental aspects to dietary guidelines may introduce a new conceptual logic to this kind of advice.

Dietary guidelines in Sweden

Sweden's current dietary guidelines were released in 2015. These replace the 2005 guidelines, which did not include an environmental aspect. The current guidelines take a 'holistic approach', framing health and environmental concerns under the umbrella concept 'a healthy whole' (Brugård Konde *et al.* 2015, Fischer and Garnett 2016). They present 10 pieces of

advice, referring to six food groups, plus sugar, salt, energy balance and physical activity. The guidelines are based on the Nordic Nutrition Recommendations, which define which nutrient reference values would contribute to optimal nutritional status and help prevent the most important lifestyle-related diseases (Nordic Council of Ministers 2014). Statistics on population dietary habits and the supply of foods available also guide the formulation of advice (Nordic Council of Ministers 2014). Additionally, the Swedish national environmental objectives (www.sverigesmiljomal.se) and scientific reports on food and environmental impact have guided the addition of environmental aspects to the guidelines (Brugård Konde *et al.* 2015).

In the Swedish process of publishing dietary guidelines, a draft is produced by the Swedish Food Agency to be sent out for open consultation. In previous research, we have analysed stakeholder responses to a consultation on the 2015 guidelines draft, focusing on the stakeholders' understandings of what dietary advice is and on what it should be based. The responses (most of which were provided by industrial actors) reinforced reductive advice that frames food as a carrier of nutrients and responsabilises individuals (Bergman *et al.* 2018). In our analysis of written communication between lay people and the Swedish Food Agency, we found that lay people also understand official dietary advice through nutrient centred discourses, framing food in a functional way related to risks and benefits, and focusing on individual responsibility for health (Bergman *et al.* 2019). Looking back at Sweden's nutritional health strategies in the 1990s, a combination of structural and educative approaches was advocated. Compared to other Nordic countries, these strategies had a lower emphasis on individual responsibility (Vallgård 2001). However, since then, scholars have noted that medico-political debates in Sweden have increasingly shifted towards individual responsibility (Michailakis and Schirmer 2010).

Dietary guidelines as cultural products and biopedagogical tools

Dietary guidelines are not only collections of advice about nutrition, but are also cultural products, produced as part of broader policies that govern individual possibilities for action in most areas of life (Shore and Wright 2003). Food itself is a cultural product. It carries taste – both literal and metaphorical – that, in Bourdieu's (1984) terms, can confer social distinction. According to Bourdieu, taste in cultural products, including food, is socially classified as high or low, and highly regarded tastes both reflect and reproduce cultural capital (Bourdieu 1984). It follows, then, that dietary guidelines, in prescribing particular modes of eating, engage with food as a bearer of cultural value.

As cultural products, dietary guidelines are discursively shaped within particular sociocultural and policy contexts. Grounded in Habermas' and Foucault's theorisations of language as key to producing knowledge and power (Durnova and Zittoun 2013), discursive approaches to policy texts have demonstrated how policy language produces particular meanings and realities, shedding light on the normative aspects of knowledge production through policy (Bacchi 2000, Durnova and Zittoun 2013). Following these discursive approaches, we define dietary guidelines as *pedagogical*, that is, engaging 'an individual's capacity to learn' (Burdick and Sandlin 2013, p. 142). Previous research has identified public policy discourses as pedagogies, through which particular ways of performing 'good' citizenship are taught and reinforced (Sandlin *et al.* 2011). As such, scholars have theorised policy discourses as *public pedagogies*. Unconfined to traditional spaces of learning (e.g. schools), public pedagogies produce knowledge, values and meanings that circulate in diverse spaces and are enacted both at the macro-level (e.g. in policy) and in people's everyday practices and interactions (Sandlin *et al.* 2011).

With public pedagogy approaches in mind, we conceptualise dietary guidelines as *biopedagogical* tools, following Wright and Harwood's (2012) definition of biopedagogies as educative messages and practices that target the body. Their concept of biopedagogies brings

together pedagogy and the Foucauldian concept of *biopower*, a form of government that regulates conduct to produce certain bodies (Foucault 1978). Biopedagogies thereby refer to policy strategies that urge people to work on their own bodies for the sake of risk avoidance, health and life (Harwood 2009), placing responsibility for wellbeing, via self-regulation, on the individual (Coveney 2006, Lindsay 2010, Petersen *et al.* 2010).

The aim of this study is to examine how the Swedish Food Agency's official dietary guidelines construct a problem for which 'a healthy whole' is the solution. Published in 2015, these guidelines take a 'holistic approach' to food and eating, addressing the challenge of formulating dietary advice that considers both human health and environmental concerns. As Sweden is one of the first countries to incorporate an environmental perspective into official dietary advice, this study is among the first to investigate the discursive entanglements of health and the environment in dietary guidelines. By analysing the discourses employed in the guidelines and interrogating the basic assumptions behind the guidelines' advice, we critically explore how the guidelines frame the interplay of public health concerns and environmental concerns in making food choices (Bacchi 2009, Harwood 2009). Through this, we advance critical sociological understandings of biopedagogies in an era where individual, societal and planetary health are increasingly interlinked in discourse and practice.

Methodology

'What's the problem represented to be?' (WPR) analysis

To examine the Swedish Food Agency's dietary guidelines discursively, we have chosen Bacchi's (2009) 'What's the problem represented to be?' (WPR) approach as an analytic and theoretical guide (Bacchi and Goodwin 2016). In contrast to assuming that there are *real* problems out there waiting to be solved, the WPR approach aims to illuminate how issues are problematised. Governance relies on how problems are constituted by official and other discourses. As this study focuses on critically exploring the biopedagogies implicated in Sweden's dietary guidelines, the WPR approach allows us to interrogate how practices and lifestyles are problematised, such that the dietary guidelines' 'healthy whole' emerges as a solution to the problem. From a poststructural perspective, policies are discursive practices that shape what we do by making certain actions possible. Policy practices produce *subjects* and *objects* whose identities are not solid but always in formation, constituted by discourse (Bacchi and Goodwin 2016). The WPR approach enables the analysis of objects (e.g. food and health) and subjects (people) produced by the guidelines, with attention to how this discursive production might affect those targeted by the policy (the subjects). According to the WPR approach, by eliciting and promoting certain behaviours, capacities or qualities, policy discourses make specific *subject positions* possible (Bacchi and Goodwin 2016, Dean 2010). For example, in dietary guidelines, discourses may define a 'moral eater' as a possible subject position (Coveney 2006).

This approach also enables us to imagine how problems could be conceptualised differently, thereby highlighting silences in the construction of problems and challenging underlying assumptions. The analysis is based on a set of questions (Bacchi 2009), of which we applied four to Sweden's dietary guidelines.

- Q1. What's the problem represented to be?
- Q2. What deep-seated presuppositions or assumptions underlie this representation of the problem (problem representation)?
- Q4. What is left unproblematic in this problem representation? Where are the silences?
- Q5. What effects are produced by this representation of the problem?

During the first phase of the analysis, each of the questions was answered separately. Then, problems – which we report as themes in the findings section – were identified in the answer to Q1. We then used the answer to Q2 to contextualise these themes within the underlying assumptions in the guidelines, paying particular attention to binaries (e.g. varied versus unbalanced), concepts (e.g. whole, health, real food) and categories (e.g. demographic risk groups), and to their content and construction in the material. The answers to Q4 and Q5 were then used in the interpretation of these findings. We did not address two of Bacchi's six questions in this paper (Q3 'How has this representation come about?', and Q6 'How and where has this representation of the problem been produced, disseminated and defended?'), because this would have required a Foucauldian genealogy of the problem representation, which is beyond the scope of this paper.

Material

We examined two booklets produced by the Swedish Food Agency to guide the population to better food habits. The first booklet, called 'Find your way – to eat greener, not too much and be active' (24 pages), presents the official Swedish dietary guidelines and was released in 2015 (Livsmedelsverket 2015). According to the information provided on the booklet's first page, the guidelines 'suit most people'. The second booklet, called 'A healthy whole' (34 pages), accompanies the official guidelines and was produced in 2016 (Livsmedelsverket 2016). Both booklets give advice and rationales for dietary changes and for physical activity, with the goal of encouraging the population to live healthier, more environmentally considerate lives. These booklets offer prescriptive advice, and can thus be examined through a WPR approach (Bacchi and Goodwin 2016). At the time of this study (October 2019), the booklets were available on the official Swedish Food Agency webpage (www.livsmedelsverket.se) together with similar texts. The booklets represent Sweden's main public messages on sustainable eating for health and the environment, and these are the key messages we aim to examine. The official guidelines ('Find your way') offer 10 main pieces of advice, illustrated with colourful photographs. Each piece of advice contains a key message, worded to recommend that people eat more or less of a certain food group or component, or switch between these. In each spread in the booklet, one page presents the message followed by tips on 'how to make it work' and a box with arguments on why people should eat as recommended. The first part of the box is dedicated to health-related arguments, and the second to environmentally related arguments (Brugård Konde *et al.* 2015). The other page is filled by an illustrative photograph. The second booklet, 'A healthy whole', is more extensive and gives information on 'good food habits, energy balance, and vitamins and minerals that might be difficult to get enough of' (p.3). The booklet also exemplifies how to make healthy eating work through four fictional characters: David, Olof, Karin, and Kerstin (two young men, one young woman and one older woman). Each example features a short story about the character, which introduces a nutritional challenge (high energy expenditure, vegetarianism, a sedentary lifestyle and poor appetite). This short story is then followed by a box which details what the character eats in a day or a week, indicating the number of portions and the weight or volume of each portion. The same page features a table that quantifies the character's daily macronutrient, fibre and whole grain consumption. 'A healthy whole' also includes sections on aspects of the environmental impact of food production and consumption, Swedish food consumption statistics and scientific rationales and references for dietary advice.

All materials were analysed in the original Swedish. The booklet 'Find your way' (the official guidelines) is available in English as well; in this paper, passages from this booklet are quoted directly from the English version, while quotes from 'A healthy whole' are translated from the Swedish booklet.

Findings

Naming the problems

Dietary guidelines are a proposal to guide conduct: the population's diet is targeted for change and the recommended change indicates the implied problem (Bacchi and Goodwin 2016). Hence, a diet that features certain qualities and components as the proposed solution represents the problem. In the case of the two booklets we analysed, this problem can be named 'the unsustainable diet'. The booklets represent the unsustainable diet as problematic in relation to bodily health and environmental impact. The unsustainable diet is linked to a second problem, which can be named 'food choice'. The booklets focus on encouraging individuals to find their unique way of changing activities related to food choice and physical activity, through advice that focuses on 'how to make it work'. The implied problem represented by this suggestion is that while individuals have knowledge about healthy (and by extension, sustainable) eating, they need additional guidance on how to make this knowledge work in everyday practice. In the rest of this section, we will detail the constitutive components of these two problems, and how they are constructed discursively in the guidelines. The problem of the unsustainable diet will be presented under two headings: 'Sustainable food is constructed as primarily of good nutritional quality' and 'A varied diet is a good diet'. Following this, the problem of food choice will be presented under the headings of "Finding your way" to making good diets work' and 'Taste as a guide to nutritious food'.

The problem of the unsustainable diet

Sustainable food is constructed as primarily of good nutritional quality. Nutrient content is framed as the main rationale for making particular food choices. The main message about food consumption in the guidelines is that it needs to be modified by increasing or decreasing certain components and exchanging some components for others. Components can be certain foods or food groups, but those of most importance are micro- and macronutrients:

Cooking fats aren't our only source of "good" fat – nuts and seeds are full of healthy fats too. These are great in a pesto sauce, in salads or as snacks.

(Find your way, p.11)

The modification of food also aims to ensure that vitamins and minerals and fat, protein and carbohydrates are all included, in appropriate proportions and amounts.

It is possible to combine food in many different ways to get enough of all the vitamins and minerals we need and just the right amount [Swedish expression: "lagom mycket"] of protein, fat and carbohydrates.

(A healthy whole p. 4)

As part of ensuring a balance of micro- and macronutrients, nutritional criteria are used to characterise foods as benefit bearing or risk reducing. While benefits are discursively constructed through relating a particular nutrient to a particular aspect of physical health, risks are discursively constructed with less precision, linking food groups to lifestyle diseases and environmental impacts.

LOTS OF IMPORTANT NUTRIENTS: Dairy products contain lots of calcium which we need for our bones and teeth. Depending on what else you eat – cheese, for example – 2–5 deciliters of milk or fermented milk a day is all you need to make sure you get enough calcium. Dairy products often contain lots of other important vitamins and minerals, as well

as protein. Low-fat dairy products also help reduce the risk of several different diseases, including high blood pressure, stroke and type 2-diabetes.

(Find your way, p. 12)

Criteria for how food choices should be made are framed as based primarily on scientific evidence. At times, the nutritional and environmental arguments concerning a particular food present an ambivalent and even conflicting choice, whereby a food may be a preferred choice from one perspective and a non-ideal choice from another perspective. For example, the guidelines state that meat and fish have the greatest environmental impact, highlighting climate change as a particular concern, and meat should therefore be chosen 'with care'. The conflict between nutritional and environmental logics is more evident in the guidelines' advice on fish: while the guidelines acknowledge fish as endangered, they still advise to eat fish, albeit eco-labelled, two to three times a week, referring to nutritional benefits.

To be able to eat fish two to three times a week in accordance with the dietary guidelines, it is important to choose eco-label, that is fish that come from sustainably managed stocks and are fished in a sustainable way.

(A healthy whole p. 26)

As seen through the example of fish consumption, the guidelines construct environmental concerns as secondary to physical health. While the guidelines contain arguments relating to environmental impacts, these are never used as the primary rationale for how to choose foods. In fact, the guidelines first present nutritional concerns in relation to health, and then add that the food we consume has environmental implications as well. After specifying health risks related to 'bad food habits', the booklet 'A healthy whole' states:

Food also has a great impact on the environment.

(A healthy whole p. 3)

In 'A healthy whole', nutrient and energy concerns related to health outcomes are presented throughout, and only two pages out of 36 are dedicated to environmental concerns. Here, climate gas emissions are emphasised as the main consequence of food consumption and emissions are compared for some foods on a numerical scale. Other environmental implications are mentioned generally, but not specifically. Notably, food waste is not mentioned in either 'Find your way' or 'A healthy whole'. Environmental concerns are also motivated by nutritional logics:

Studies show... that climate-smarter eating habits also meet nutritional recommendations and dietary advice better compared to a less climate-smart diet.

(A healthy whole p. 26).

The guidelines construct responsible choices as those contributing to a healthy diet, with the assumption that if such a diet is attained it will also be good enough from an environmental perspective. The concept of a 'whole' is repeated in the guidelines, but information about environmental impacts is added as an extra concern to keep in mind, to be considered only after the subject has fulfilled nutritional recommendations.

A varied diet is a good diet. Key to the guidelines' framing of healthy eating is the idea of a varied diet that includes a balance of nutrients. 'A healthy whole' illustrates this underlying assumption through the story of a fictional person's food habits:

David

David prefers to eat white bread, but occasionally eats hard rye bread. Along with cereals, whole grain bulgur, vegetables and fruit, he has a good intake of fiber and whole grain. Except for soft bread David chooses Keyhole products¹. It means that he has a higher intake of fiber and whole grain, less salt and sugar, and more healthy as well as less fats compared to what he would have had otherwise.

... Since David eats a varied and versatile diet, there is also occasional space for crisps, soda and ice-cream.

(A healthy whole p. 19)

Food is framed as being those provisions that contribute to a healthy combination of nutrients in contrast to other eatables that have no health-promoting functionality.

There are 13 vitamins and approximately 20 minerals we need to ingest. It might sound a lot, but it's a fact that we ingest most of them without problem, given that we mainly eat food and not such things that mostly provide "empty calories", such as soda, snacks and candy.

(A healthy whole, p. 9)

The guidelines suggest that a person who achieves an overall 'good' composition of foods and nutrients, might have 'space' left for some foods otherwise excluded from 'good food habits' (A healthy whole p.3). Achieving this composition, however, requires increasing diversity and variety in every aspect of one's diet. While 'Find your way' gives suggestions on how to vary methods of food preparation, how to choose different kinds of foodstuffs, and how to serve certain foods to improve their palatability, 'A healthy whole' quantifies these suggestions in terms of recommended macro- and micronutrient intake. A good diet is a varied diet, and the implicit problem with unsustainable eating is that it is non-diversified.

The problem of food choice

'Finding your way' to making good diets work. The problem of food choice is represented as a problem of everyday practice, with the underlying assumption that subjects have knowledge about healthy (and by extension, sustainable) eating, but need additional guidance on how to enact changes. For example, on the back cover of the Swedish version of 'Find your way', the guidelines explain:

Most people in fact know pretty well what they should eat. It is not news that the body is doing well from vegetables and worse from sugar. But to know and to act is not always the same thing. Here you find advice and everyday tips to make it easier to succeed with food habits that are sustainable both for your health and the environment.

(Find your way, back cover; this passage is not included in the English version)

The subject is assumed to have 'working' or 'non-working' practices in relation to food, which can be highly individual. Advice emphasises each individual's responsibility to identify which practices work for them.

...work out what works for you

(Find your way, p. 19)

Start with yourself

(Find your way, p. 20)

To provide practical guidance on how to make dietary changes, each page centrally features suggestions on 'how to make it work'. These suggestions include how to choose among products in the same food category, how to vary dishes or cooking methods to have more of

certain foods, or how to identify possible alternatives for foods associated with negative health or environmental impacts. This advice is premised on the assumption that subjects share particular values related to food preparation and consumption. In the following example, these values are ease, simplicity and quickness of preparation, deliciousness and excitement about trying new foods.

EASY TO SWITCH: Soups, pies and stirfries can easily be made without meat. The freezer section in your supermarket offers lots of exciting “veggie burgers”, and you’ll find ready-to-eat beans, lentils and chickpeas among the tinned products. Quick, simple and delicious. (Find your way, p.15)

Whereas ‘Find your way’ offers advice on engaging with food joyfully, ‘A healthy whole’ takes a quantified approach, where the subject is encouraged to place themselves within a demographic risk category. ‘A healthy whole’ constructs several categories of subjects ‘at risk’ for non-optimal eating, dietary deficiencies, and overweight and obesity. As framed by the booklet, these categories are roughly divided along socio-demographic lines. In addition to subjects categorised as overweight, the guidelines specifically mention women, teenagers, young adults, men and low-income earners as constituting risk groups.

Although the consumption of vegetables and fruits has increased, still few eat 500 grams a day, especially among men. Only half of the men eat fruit or berries every day. Many men do not eat vegetables, fruits and berries more than once a week.

... Most people get enough vitamins and minerals, but some groups, especially young women, ingest less than what is recommended by vitamin D, iron and folate. . . The reason for the low nutritional intake was that the young women had a lot of soda, snacks and sweets instead of nutritious food. . .

(A healthy whole, p. 25)

While the booklet does not offer advice tailored to the presumed needs of each of these groups, ‘A healthy whole’ illustrates how these needs might be addressed on an individual level through the stories of the four characters. For example, Karin, whom the booklet portrays as a young woman of childbearing age, consciously chooses highly nutritious foods to fulfill the additional micronutrient needs associated with her gender and age. Notably, none of the character stories refers to sustainability. The guidelines suggest that by following a healthy diet, the subject will consequently contribute to environmental sustainability. However, the absence of environmental concerns in the character stories implies that placing oneself into a demographic risk category and quantifying one’s diet accordingly leaves little room for a conscious consideration of sustainable eating.

Taste as a guide to nutritious food. The guidelines encourage the subject to cultivate good taste. While the guidelines frame personal experiences of taste as important to food choice, they focus on a taste for freshly seasoned, micronutrient-rich foods – a taste for foods labelled ‘healthy’. As such, the guidelines indicate what to think (and feel) about certain foods and seasonings. The recommended foods are described through appetising wordings such as ‘Quick, simple and delicious’ (Find your way, p. 15) or ‘Use garlic, lime, chilli, curry or herbs to add flavour’ (Find your way, p. 3).

GREAT ALTERNATIVES: Cut back on salt but not on the flavour! Use fresh and dried herbs, lemon, garlic, fresh ginger, chilli, curry and other spices. You can add lots of fabulous flavor to your food even if you use less salt.

(Find your way, p. 16)

In the guidelines, arguments and instructions with culinary connotations are used to present recommended foods in an attractive way. This is the case both when advice focuses on reducing palatable ingredients (like fat and salt) in the name of health, and when advice focuses on switching from meat to vegetable-based products in the name of environmental sustainability. The underlying assumption is that taste is key to dietary change. Furthermore, it is assumed that people perceive the food recommended by the guidelines as less tasty than their ordinary food, and that people view eating according to the guidelines as effortful, complicated and not in line with what people would voluntarily or habitually do. Advice therefore focuses on convincing people about the possible tastiness of recommended foods.

In addition, the guidelines encourage people to practice mindful eating. Underlying this is the assumption that, to enjoy food and appreciate its taste, subjects should be attentive to what they consume.

ENJOY YOUR FOOD: Eat slowly, pay attention to what you are doing and experience all the flavours! If you eat too quickly, you won't have time to enjoy your food and it'll be easier for you to eat too much.

(Find your way, p.20)

As part of mindful eating, the guidelines encourage attending to hunger cues, suggesting that hunger and satiety can provide an individual measure of how much food is 'enough'. However, while the guidelines' emphasis on hunger cues may share similarities with the 'health at every size' (HAES) approach's focus on intuitive eating, their pedagogical aim is different, as the guidelines do not share HAES's aim of encouraging size acceptance (see Bacon *et al.* 2005). Indeed, although the guidelines frame attention to flavour as central to mindful eating, in 'Find your way', this attention to flavour is contextualised within wider knowledge about foods that may help people maintain their current weight and foods that increase the risk of gaining weight.

Naturally fibre-rich foods such as vegetables, fruit, wholegrain products, nuts and seeds will help you to maintain your weight, while lots of fizzy drinks and sweets, white varieties of bread, rice and pasta, red and processed meat increase the risk of putting on weight.

(Find your way, p. 20)

While the guidelines encourage cultivating taste and practicing mindful eating, built into this advice are assumptions about the features and lifestyles that characterise the recipients. Advice on how to season and prepare foods at home reveals an underlying assumption that subjects have the time and resources to dedicate to food preparation, and that they highly value and prioritise the daily preparation of fresh food (Coveney *et al.* 2012). Likewise, in encouraging readers to follow their taste, the guidelines assume that readers would prefer fresh, spicy, unfamiliar and exciting foods. This type of taste, which is closely associated with middle classness, carries higher social value and connotations of distinction (Gronow 1993). For example, 'Find your way' recommends introducing mussels into one's home cooking as an easy way of increasing environmentally friendly seafood consumption; however, mussels are far from being a staple food in the Swedish context, and are associated with upscale French restaurant dining. This links with the guidelines' advice on environmental concerns more broadly. The guidelines premise sustainable eating advice on the underlying assumption that subjects are ready and willing to care about environmental issues, and that they can incorporate these additional concerns into their everyday reasoning and practice. Through this advice, the guidelines invoke an implied eco-habitus (Carfagna *et al.* 2014), whereby ethical concerns are incorporated into the body through conscious consumption, conferring on the eater high cultural capital and social

distinction (Bourdieu 1984). Although the eco-habitus is associated with middle class lifestyles, the guidelines imply that everyone should pursue it as an ideal.

Concluding discussion

As biopedagogical tools, the Swedish dietary guidelines analysed in this article instruct individuals on how to think and act in relation to food and to their bodies. Our analysis has shown how these instructions are discursively constructed in the guidelines. The instructions are premised on assumptions about readers' tastes and values, as they implicate cultural capital – both attained and aspirational (Bourdieu 1984, Gronow 1993). In the case of Sweden's dietary guidelines, they construct the subject position of an 'ideal eater' through biopedagogies that encourage a taste for fresh, diverse and healthy foods and the valuing of sustainable eating. The 'ideal eater' has knowledge about nutrition and the environment, prioritises physical health above other values, and takes continuous, conscious action for optimal food choices. This 'ideal eater' is attentive, aware of her/his own individual path to sustainable eating, exercises control over food choice, and knows how to combine foods and make sustainable eating work.

The guidelines' focus on individual paths to healthy eating is linked to their focus on the functionality of nutrients, physical health and energy balance. In focusing on the nutritional value of food (and its environmental impact) as key to health, the guidelines maintain a discourse that emphasises individual risk reduction. For example, 'A healthy whole' invites readers to identify with either David, Karin, Olof or Kerstin. The character stories illustrate how each protagonist mitigates risk through healthy eating choices, presented in inspiring tones. Although the guidelines deliver advice in positive language, this advice is directly informed by a categorisation of nutritional risk, as each character represents a specific demographic risk group. The guidelines' focus on risk is embedded in a long discursive tradition. Historically, dietary guidelines have employed a discourse which puts the entire population at risk (Covey 2006, Lindsay 2010, Lupton 2018, Petersen *et al.* 2010), and thereby makes people 'a site for intervention' (Kristensen *et al.* 2013, p. 244).

The guidelines position taste as the means to connect healthy food choices and environmental sustainability. While the 'ideal eater' is expected to be aware of environmental issues, these are incorporated into the 'ideal eater's' choices only in addition to the primary concern of health, and via embodied experiences of taste. Indeed, the guidelines note that individuals do not have to choose between health and environmental concerns: taste, according to 'Find your way', will lead the way to better choices. Where health and environmental priorities conflict, however, the guidelines prioritise dietary choices that support individual health, implying that while both health and the environment are to be considered, human health takes precedence over the state of the earth. Even from a visual perspective, sustainability concerns take a lower priority: in 'Find your way', sustainability is placed below healthy eating on every page of text. Why is sustainability positioned in second place? Dietary guidelines are cultural products developed within a particular historical context (Crotty 1995, Mudry 2009, Nestle 2013). Their primary purpose is to promote public health, and they may not lend themselves easily to discourses that challenge the existing template (Bechthold *et al.* 2018, Carlisle and Hanlon 2014). Using the same biopedagogical discourses to bring together two, sometimes conflicting, imperatives is a complex task, and the approach taken in 'Find your way', whereby the sense of taste will bridge between health and environmental concerns, leaves a discursive and practical gap.

While the guidelines attempt to put the individual in an environmental context, they do not place the individual within a social context. As constructed by the guidelines, the 'ideal eater' practices sustainable eating in isolation. Food choices are presented outside the context of social norms, habits, tradition, convenience, meaning making, household resources and possibilities. Key to the guidelines is the instruction to 'find your way', with each individual charting a path to a 'healthy whole' with no social and familial context. In the four character stories presented in 'A healthy whole', David, Karin, Olof and Kerstin exemplify healthy eating choices, with no relatives or friends mentioned in any of their stories. Similarly, in 'Find your way', the mindful 'ideal eater' selects, prepares and consumes food in isolation. The individualising approach in both booklets silences everyday food-related practices. On a practical level, people often take unconscious action where food is involved (Delormier *et al.* 2009), with familial dynamics and social interactions influencing food choice, food preparation and eating practices (Beagan *et al.* 2014, Wright *et al.* 2015, Zivkovic *et al.* 2015). These practices are also premised on the cultural capital carried by individuals and families (See e.g. Beagan *et al.* 2014, Woolhouse *et al.* 2019).

An additional silence in the guidelines surrounds socio-demographic variables that may affect food and eating. In constructing a vision of 'ideal eating' that requires time and social resources, the guidelines do not account for how social class or the gendered division of labour within the home might impact on people's capacity to follow the advice (Johansson and Ossiansson 2012, Mehta *et al.* 2019, Oncini and Guetto 2017, Woolhouse *et al.* 2019). Indeed, as Woolhouse *et al.* (2019) found in their UK-based study of mothers' food practices, discourses that position practices like growing vegetables and cooking from scratch as imperative to healthy eating and feeding may end up alienating mothers, particularly from lower socioeconomic backgrounds, who do not have the time and the resources to enact these idealised practices. This mismatch between ideal practice and capacity for action was recently highlighted by Mehta *et al.* (2019), whose study of Australian mothers' food provisioning experiences found that while mothers have nutritional knowledge, ideals of nutritional practice may lead to feelings of stress and guilt. Lupton (2018) provides a closer view on how this mismatch affects dietary advice followers, examining the experiences of women who attempt to use food-tracking apps. Like dietary guidelines, food-tracking apps are biopedagogical tools that aim at reaching the entire population. However, as Lupton (2018) shows, the apps are designed according to particular social scripts which link the actions they promote to certain types of users. As such, when users' social conditions and lived experiences do not match these scripts, attempts to follow these biopedagogies result in discomfort, frustration and disengagement.

The Swedish Food Agency is among the first to integrate environmental concerns into dietary guidelines. Nevertheless, an individually focused, nutrient-focused discourse is not the only way to frame dietary guidelines that bring together health and environmental concerns. A notable example is Brazil's dietary guidelines (Monteiro *et al.* 2015), which also address the intersection of human health and the environment, where sustainable eating is framed in relational contexts, and where the main focus is on increasing the consumption of non-processed or minimally processed foods. This contrast conveys that multiple social scripts and normative constructions can be written into dietary advice. Still, it is important to note that both Sweden's and Brazil's dietary guidelines ultimately frame sustainable eating as an individual project. However, sustainable eating is actually premised on systemic changes. As argued in a recent report by the EAT-Lancet Commission, promoting sustainable diets at the individual level would require national and global transformations in food production and distribution systems (Willett *et al.* 2019). This highlights that in current attempts to bridge between health and the

environment, dietary guidelines do not address the key issues underlying unsustainable eating, thereby decentring the importance of collective action.

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Data Availability

The data analysed in this study are openly available from the Swedish Food Agency at www.livsmedelsverket.se

Note

- 1 The Keyhole symbol – the Swedish Food Agency's food label to help consumers identify healthier options. The Keyhole symbol guides consumers in finding foods higher in whole grains and fibre, and lower in fat, salt and sugar.

References

- Aronson, N. (1982) Nutrition as a social problem: a case study of entrepreneurial strategy in science, *Social Problems*, 29, 5, 474–87.
- Bacchi, C. (2000) Policy as discourse: what does it mean? Where does it get us?, *Discourse: Studies in the Cultural Politics of Education*, 21, 1, 45–57.
- Bacchi, C. (2009) *Analysing Policy: What's the Problem Represented to Be?* Frenchs Forest: Pearson.
- Bacchi, C. and Goodwin, S. (2016) *Poststructural Policy Analysis: A Guide to Practice*. New York: Springer.
- Bacon, L., Stern, J.S., Van Loan, M.D. and Keim, N.L. (2005) Size acceptance and intuitive eating improve health for obese, female chronic dieters, *Journal of the American Dietetic Association*, 105, 6, 929–36.

- Beagan, B.L., Chapman, G.E., Johnston, J., Mcphail, D., et al. (2014) *Acquired Tastes: Why Families Eat the Way They Do*. Vancouver: UBC Press.
- Bechthold, A., Boeing, H., Tetens, I., Schwingshackl, L., et al. (2018) Perspective: food-based dietary guidelines in Europe—scientific concepts, current status, and perspectives, *Advances in Nutrition*, 9, 5, 544–60.
- Bergman, K., Eli, K., Persson-Osowski, C.P., Lövestam, E., et al. (2019) Public expressions of trust and distrust in governmental dietary advice in Sweden, *Qualitative Health Research*, 29, 8, 1161–73.
- Bergman, K., Persson-Osowski, C.P., Eli, K., Lövestam, E., et al. (2018) Stakeholder responses to governmental dietary guidelines: challenging the status quo, or reinforcing it?, *British Food Journal*, 120, 3, 613–24.
- Bourdieu, P. (1984) *Distinction: A Social Critique of the Judgement of Taste*. Cambridge: Harvard University Press and Routledge.
- Brugård Konde, Å., Bjerselius, R., Haglund, L., Jansson, A., et al. (2015) *Råd om Bra Matvanor-Risk-Och Nyttohanteringsrapport [Advice on Healthy Food Habits – A Risks and Benefits Management Report]*. Uppsala: Livsmedelsverket.
- Burdick, J. and Sandlin, J.A. (2013) Learning, becoming and the unknowable: conceptualizations, mechanisms, and process in public pedagogy literature, *Curriculum Inquiry*, 43, 1, 142–77.
- Carfagna, L.B., Dubois, E.A., Fitzmaurice, C., Ouimette, M.Y., et al. (2014) An emerging eco-habitus: the reconfiguration of high cultural capital practices among ethical consumers, *Journal of Consumer Culture*, 14, 2, 158–78.
- Carlisle, S. and Hanlon, P. (2014) Connecting food, well-being and environmental sustainability: towards an integrative public health nutrition, *Critical Public Health*, 24, 4, 405–17.
- Coveney, J. (2006) *Food, Morals and Meaning: The Pleasure and Anxiety of Eating*. Abingdon: Routledge.
- Coveney, J., Begley, A. and Gallegos, D. (2012) "Savoir Fare": are cooking skills a new morality?, *Australian Journal of Adult Learning*, 52, 3, 617–42.
- Crawford, R. (1980) Healthism and the medicalization of everyday life, *International Journal of Health Services*, 10, 3, 365–88.
- Crotty, P.A. (1995) *Good Nutrition?: Fact and Fashion in Dietary Advice*. St. Leonards: Allen & Unwin.
- Davis, C. and Saltos, E. (1999) Dietary recommendations and how they have changed over time. In Frazao, E. (ed.) *America's Eating Habits: Changes and Consequences*. United States Department of Agriculture, Economic Research Service, Food and Rural Economics Division.
- Dean, M. (2010) *Governmentality: Power and Rule in Modern Society*. London: Sage Publications.
- Delormier, T., Frohlich, K.L. and 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, 215–28.
- Durnova, A. and Zittoun, P. (2013) Les approches discursives des politiques publiques (English version), *Revue Francaise de Science Politique*, 3, 63, 569–77.
- Fischer, C.G. and Garnett, T. (2016) Plates, pyramids, and planets: developments in national healthy and sustainable dietary guidelines: a state of play assessment. Food and Agriculture Organization of the United Nations.
- Foucault, M. (1978) *The History of Sexuality, An Introduction*. New York: Pantheon.
- Foucault, M. (1991) *The Foucault Effect: Studies in Governmentality*. Chicago: University of Chicago Press.
- Garnett, T. (2014) Changing what we eat: a call for research & action on widespread adoption of sustainable healthy eating (Report of FCRN-Food Climate Research Network) Food Climate Research Network (FCRN).
- Gronow, J. (1993) What is "good taste"?, *Social Science Information*, 32, 2, 279–301.
- Harwood, V. (2009) Theorizing biopedagogies. In Wright, J. and Harwood, V. (eds) *Biopolitics and the 'Obesity Epidemic'*. New York: Routledge.
- Jelsøe, E. (2015) Dietary guidelines: nutritional health communication versus sustainable food policy, *Journal of Transdisciplinary Environmental Studies*, 14, 2, 36–51.

- Johansson, B. and Ossiansson, E. (2012) Managing the everyday health puzzle in Swedish families with children, *Food and Foodways*, 20, 2, 123–45.
- Kristensen D. B., Askegaard S. and Jeppesen L. H. (2013) 'If it makes you feel good it must be right': Embodiment strategies for healthy eating and risk management. *Journal of Consumer Behaviour*, 12, 4, 243–52.
- Lang, T. and Barling, D. (2013) Nutrition and sustainability: an emerging food policy discourse, *Proceedings of the Nutrition Society*, 72, 1, 1–12.
- Lindsay, J. (2010) Healthy living guidelines and the disconnect with everyday life, *Critical Public Health*, 20, 4, 475–87.
- Livsmedelsverket. (2015) *Hitta ditt sätt att äta grönare, lagom mycket och röra på dig [Find Your Way to Eat Greener, Not Too Much and Be Active]*. Uppsala: Livsmedelsverket.
- Livsmedelsverket. (2016) *Hälsosam Helhet [A Healthy Whole]*. Uppsala: Livsmedelsverket.
- Lupton, D. (2018) 'I just want it to be done, done, done!' food tracking apps, affects, and agential capacities, *Multimodal Technologies and Interaction*, 2, 2, 29.
- Mattisson, I., Eneroth, H. and Becker, W. (2012) *Från nutritionsforskning till kostråd-så arbetar Livsmedelsverket [From Nutrition Research to Dietary Advice -This is How the Swedish Food Agency Works]*. Uppsala: Livsmedelsverket.
- Mehta, K., Booth, S., Coveney, J. and Strazdins, L. (2019) *Feeding the Australian Family: Challenges for Mothers, Nutrition and Equity*. Health Promotion International, 1–8.
- Michailakis, D. and Schirmer, W. (2010) Agents of their health? How the Swedish welfare state introduces expectations of individual responsibility, *Sociology of Health & Illness*, 32, 6, 930–47.
- Montagnese, C., Santarpia, L., Buonifacio, M., Nardelli, A., et al. (2015) European food-based dietary guidelines: a comparison and update, *Nutrition*, 31, 7–8, 908–15.
- Monteiro, C.A., Cannon, G., Moubarac, J.-C., Martins, A.P.B., et al. (2015) Dietary guidelines to nourish humanity and the planet in the twenty-first century. A blueprint from Brazil, *Public Health Nutrition*, 18, 13, 2311–22.
- Mudry, J. (2009) *Measured Meals: Nutrition in America*. Albany: State University of New York.
- Nelson, M.E., Hamm, M.W., Hu, F.B., Abrams, S.A., et al. (2016) Alignment of healthy dietary patterns and environmental sustainability: a systematic review, *Advances in Nutrition*, 7, 6, 1005–25.
- Nestle, M. (2013) *Food Politics: How the Food Industry Influences Nutrition and Health*. Berkeley: University of California Press.
- Nordic Council of Ministers. (2014) *Nordic Nutrition Recommendations 2012: Integrating Nutrition and Physical Activity*. Copenhagen: Nordic Council of Ministers.
- Oncini, F. and Guetto, R. (2017) Determinants of dietary compliance among Italian children: disentangling the effect of social origins using Bourdieu's cultural capital theory, *Sociology of Health & Illness*, 39, 1, 47–62.
- Petersen, A., Davis, M., Fraser, S. and Lindsay, J. (2010) Healthy living and citizenship: an overview, *Critical Public Health*, 20, 4, 391–400.
- Priefer, C., Jörissen, J. and Bräutigam, K.-R. (2016) Food waste prevention in Europe—a cause-driven approach to identify the most relevant leverage points for action, *Resources, Conservation and Recycling*, 109, 155–65.
- Qvarsell, R. (2005) Maten och vetenskapen. Näringslära, kostvanestudier och socialpolitik ca 1880–1960 [Food and science. Nutrition, food pattern studies and social politics from the 1880s to the 1960s]. In Widmalm, S. and Qvarsell, R., (eds) *Lychnos: årsbok för idé- och lärdomshistoria: Tema: Mat*. Linköping: Linköping University Electronic Press.
- Rebrovick, T. (2015) The politics of diet: "Eco-dietetics", neoliberalism, and the history of dietetic discourses, *Political Research Quarterly*, 68, 4, 678–89.
- Sandlin, J.A., O'Malley, M.P. and Burdick, J. (2011) Mapping the complexity of public pedagogy scholarship: 1894–2010, *Review of Educational Research*, 81, 3, 338–75.
- Santich, B. (2005) Paradigm shifts in the history of dietary advice in Australia, *Nutrition & Dietetics*, 62, 4, 152–7.
- Scrini, G. (2013) *Nutritionism: The Science and Politics of Dietary Advice*. New York: Columbia University Press.

- Shore, C. and Wright, S. (2003) *Anthropology of Policy: Perspectives on Governance and Power*. London, UK: Routledge.
- Thyberg, K.L. and Tonjes, D.J. (2016) Drivers of food waste and their implications for sustainable policy development, *Resources, Conservation and Recycling*, 106, 110–23.
- Vallgård, S. (2001) Governing people's lives: strategies for improving the health of the nations in England, Denmark, Norway and Sweden, *The European Journal of Public Health*, 11, 4, 386–92.
- Willett, W., Rockström, J., Loken, B., Springmann, M., et al. (2019) Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems, *The Lancet*, 393, 10170, 447–92.
- Woolhouse, M., Day, K. and Rickett, B. (2019) “Growing your own herbs” and “cooking from scratch”: contemporary discourses around good mothering, food, and class-related identities, *Journal of Community & Applied Social Psychology*, 29, 285–96.
- World Health Organization/Food and Agriculture Organization of the United Nations [FAO/WHO]. (1998) *Preparation and Use of Food-Based Dietary Guidelines, Report of a Joint FAO/WHO Consultation*. Geneva: World Health Organization.
- Wright, J. and Harwood, V. (2012) *Biopolitics and the 'Obesity Epidemic'. Governing Bodies*. New York: Routledge.
- Wright, J., Maher, J. and Tanner, C. (2015) Social class, anxieties and mothers' foodwork, *Sociology of Health & Illness*, 37, 3, 422–36.
- Zivkovic, T., Warin, M., Moore, V., Ward, P., et al. (2015) The sweetness of care: biographies, bodies and place. In Abbots, E.-J., Lavis, A. and Attala, L. (eds) *Careful Eating: Bodies, Food and Care*. Farnham, Surrey: Ashgate Publishing Limited.