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Research report

"He just *has* to like ham" – The centrality of meat in home and consumer studies

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ABSTRACT

This study aimed to describe Discourses on meat in the school subject Home and Consumer Studies in five different northern Swedish schools. Fifty-nine students and five teachers from five different schools were recorded and in some cases video-taped during lessons. Results indicate that meat was seen as *central* to nutritional health, sensory experience, culture and social relationships. This positive view was challenged by an alternative Discourse where meat was *threatening* to health, sensory experience and psychological comfort, but this was not strong enough to affect centrality. Even when participants sought to promote the health advantages of reducing meat consumption, the dominant centrality Discourse was strengthened. This implies that the possible tension between physical and psychosocial/emotional health can make the benefits of a reduction difficult both to convey and accept. A form of critical food literacy may help teachers deconstruct the arbitrary power of the centrality Discourse, but it may also strengthen meat-eater identities because the social norms that guide food choice become salient. A redesign of Discourses might facilitate a reduction in meat consumption, but such a paradigm shift is dependent on the development of society as a whole, and can only be briefly touched upon within the limited time frames and resources of Home and Consumer Studies.

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1. Introduction

Animal flesh is a charged food, frequently found at the centre of debates about health, economy and the environment. In particular, some researchers connect red meat to cancer and cardiovascular diseases (Bernstein & Willett, 2011; McAfee et al., 2010). Others hold that the connection is tenuous, and that lean red meat is a nutritious food that can help maintain what is seen as a healthy body weight without raising dangerous blood lipids (McNeill, 2014). Fish and poultry have been ascribed positive health effects due to their unsaturated fat content (Willett & Stampfer, 2013). However, compared to many plant foods, animal flesh (henceforth meat) is expensive and has a big impact on the environment. For example, the meat industry is energy ineffective and emits high levels of greenhouse gas (Dagevos & Voordouw, 2013).

Based on the possibly negative aspects of red meat, Sweden has a public health goal of reducing consumption to 500 g per person and week (26 kilos per year) (Swedish National Food Agency, 2014). Such a drastic change may face resistance, since meat is an important part of a 'proper meal' (Ekström, 1990; Johansson & Ossiansson, 2012). The average Swede currently consumes approximately 49 kilos of (all kinds of) meat per year, plus 23 kilos of charcuteries and 11 kilos of frozen products that contain meat (Lööv, Lannhard Öberg, Loxbo, Lukkarinen, & Lindow, 2013). One explanation for this is that food choice is not only a rational matter, but also a social and emotional one (Delormier, Frohlich, & Potvin, 2009; Lupton, 1996).

As a symbol of strength, masculinity and power, red meat enjoys high status in many cultures (Newcombe, McCarthy, Cronin, & McCarthy, 2012; Roos, Prättälä, & Koski, 2001; Rothgerber, 2013). Throughout human history, it has been used to construct cultural phenomena such as gender roles, religious practices and social hierarchies (Leroy & Praet, 2015). Since human relationships are manifested through the sharing of food, certainly of meat, any deviance may be seen as a rejection of community values (Fiddes,

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2004). This explains why vegetarians are sometimes dismissed as strange, effeminate, and threatening (Cole & Morgan, 2011).

One area where meat may be especially highly regarded is northern Sweden, with its strong hunting culture and Sami reindeer herding. Paradoxically, one northern town famously has a history of Straight Edge veganism with 16% of fifteen-year-olds identifying as vegetarians (Larsson, 2001). This is a much higher percentage than the national mean, which lies somewhere between 3% and 10% (Djurens Rätt [*Animal Rights*] 2015; Rothgerber, 2013). Reasons cited for becoming vegetarian were animal welfare, personal health, a distaste for meat and a taste for vegetarian food (Larsson, 2001). It is uncertain whether the high prevalence still remains, but there is a steady influx of students into the town, and vegetarianism is most common among 15- to 24-year-olds (Djurens Rätt [*Animal Rights*], 2015).

In a previous study (Bohm, Lindblom, Åbacka & Hörnell, 2015), we showed that societal Discourses about food and health were reflected in student and teacher talk in the mandatory school subject Home and Consumer Studies (HCS). Roughly equivalent to the international subject Home Economics, HCS aims to develop knowledge about how the individual's actions impact health, private economy and the environment (National Agency for Education, 2011a). During lessons, students of all genders and from diverse backgrounds gather to plan, cook, share and reason around meals. Since syllabus goals encourage consideration of both physical and psychosocial health aspects (National Agency for Education, 2011b), diverse issues that influence food and eating may become salient. Therefore, this study aimed to describe extant Discourses on meat in HCS, and to relate them to theories that may further explain the possible contradictions inherent in the societal goal of reducing red meat intake.

2. Theory and definitions

2.1. Big 'D' discourses and critical food literacy

The concept of 'discourse' has been defined in many different ways depending on research objectives and theoretical underpinnings. In this study, we employed Gee's (2013) big 'D' Discourse, which is defined as the 'truths' people produce through speaking and writing (little 'd' discourse), doing, being, valuing and believing. In other words, Discourse is not only language-based, but also involves other forms of social interaction such as gestures and actions. In this article, a big 'D' Discourse is understood as talk about meat (speaking),cooking and eating (doing), the enactment of meat-eater identities (being), the assessment of eating behaviours (valuing), and beliefs about meat (believing). Since this is the definition that informs the whole study, Discourse will be written with a big 'D' throughout the article, even when referencing sources that do not follow this practice.

To enable an analysis of food and health in relation to social norms, a form of *critical food literacy* was used. This is an emergent concept, recently defined as "empowering individuals to make informed choices and to enact those choices" (Pendergast, Garvis, & Kanasa, 2011, p. 420). Because of our focus on the possible contradictions between physical and psychosocial health, we use the term to describe the ability to problematize food and health in relation to both social norms and nutrition. By 'social norm' we mean the expectations on the individual to use and obey a specific Discourse, based on the situation and the various social groups they and their company belong to. So for example, a man in the company of other men might be expected to eat (a lot of) meat, especially if he is working class and lives in a rural area, whereas a middle class woman in a big city would be less pressured to do so.

As a theoretical tool, Hilary Janks's integrated model of critical literacy (2010) was used (Fig. 1). Originally meant to analyse language, the model shows how Discourse is a form of *power* that produces truths and upholds or challenges the dominion of certain groups in society. Since a Discourse is a kind of worldview, it remains powerful by seeming natural and inevitable – simply as 'the way things are' – rather than the ideological construct it really is. Because of the exclusionary nature of *power*, *access* to the privileges of dominant Discourses is restricted, and *diversity* and *design* are needed to transform these structures.

To illustrate with an example to do with food and health, one Discourse that has gained *power* in Sweden during the 20th century is the individual's responsibility for their own well-being (Bildtgård, 2002). This is part of a general neoliberal trend, which promotes individual freedom and responsibility over state regulation. Instead of a top-down process where governments or state institutions discipline and punish, people are now encouraged to self-regulate and make responsible choices (Lupton, 1995). In the case of meat, such a choice might be to reduce consumption based on advice from the Swedish National Food Agency (2014).

To continue through the critical literacy model, the *access* dimension illuminates how only some groups can reap the rewards of the powerful individualist Discourse. For example, not everyone

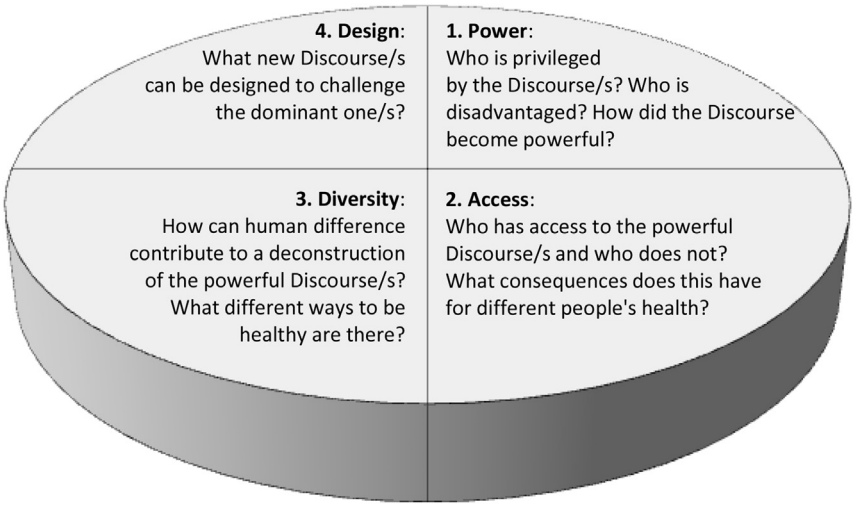


Fig. 1. A visualization of Janks's (2010) model of critical literacy, applied to food and health.

has the necessary skills, economic resources and/or social support to take responsibility for their health. Eating is a social practice where people show group belonging, which means that deviating from a norm can be difficult (Delormier et al., 2009; Fischler, 1988; Lupton, 1996), but the individualistic Discourse is so wide-spread that it may marginalise knowledge about these social aspects. Thus the 'responsible' choice to reduce meat consumption may be made more difficult for people whose culture centres on meat (Dagevos & Voordouw, 2013).

The third dimension, *diversity*, highlights the resources offered by human difference: there are many ways to be healthy, but because of *power*, some are considered superior. For instance, the food habits of the working class are often viewed as unhealthy, a prejudice which is partly confirmed by studies that show the diets of the lower classes to be less nutrient-dense (Darmon & Drewnowski, 2008). However, other researchers have pointed out that the diets of different classes vary more in terms of food products than nutrition (Germov, 2008). To exemplify, a typical working class diet that is based on meat may be perfectly healthy (McNeill, 2014).

In the final dimension of the model, *design*, a new Discourse can be created to challenge the dominant one/s. If this step is overlooked, human agency is removed, with disempowerment as a result. At this stage, it is crucial to have deconstructed *power* so as not to unconsciously reproduce it, to allow people *access* to the new Discourse, and to actively use *diversity* as a resource in the design. It is important to remember that the new Discourse can never be neutral. It will simply serve the interests of a different group. An example of a *redesign* might be a Discourse of societal responsibility, where an individual's health is seen as a result of social norms upheld by many different institutions, such as food marketers, health promoters and the media. From such a viewpoint, the choice to eat meat is not only made by the individual, but is heavily influenced by societal structures and norms (Dagevos & Voordouw, 2013; Fiddes, 2004; Lupton, 1996).

2.2. The contradictory dimensions of meat

In this article, we view eating as a nutritional, practical, and psychosocial/emotional phenomenon. This can be illustrated by Belasco's (2008) triangle of culinary contradictions (Fig. 2). The model shows that what is considered good for the body and/or the environment does not necessarily coincide with practical concerns, taste or culture.

To begin at the apex of the triangle, the *responsibility* aspect involves nutritional, ethical and environmental consequences of food choice. For instance, if a high intake of red meat is connected to cancer and cardiovascular diseases (Bernstein & Willett, 2011; McAfee et al., 2010), and the meat industry has a negative impact on animal welfare and the climate (Dagevos & Voordouw, 2013), reducing consumption could be regarded as a responsible choice. From another viewpoint, lean meat can be part of a healthy diet, and therefore also responsible (McNeill, 2014).

The *convenience* aspect (in the lower right corner of Fig. 2) involves things like time, resources, skills and availability. This can be illustrated by meat products that are cheap, easy to cook and

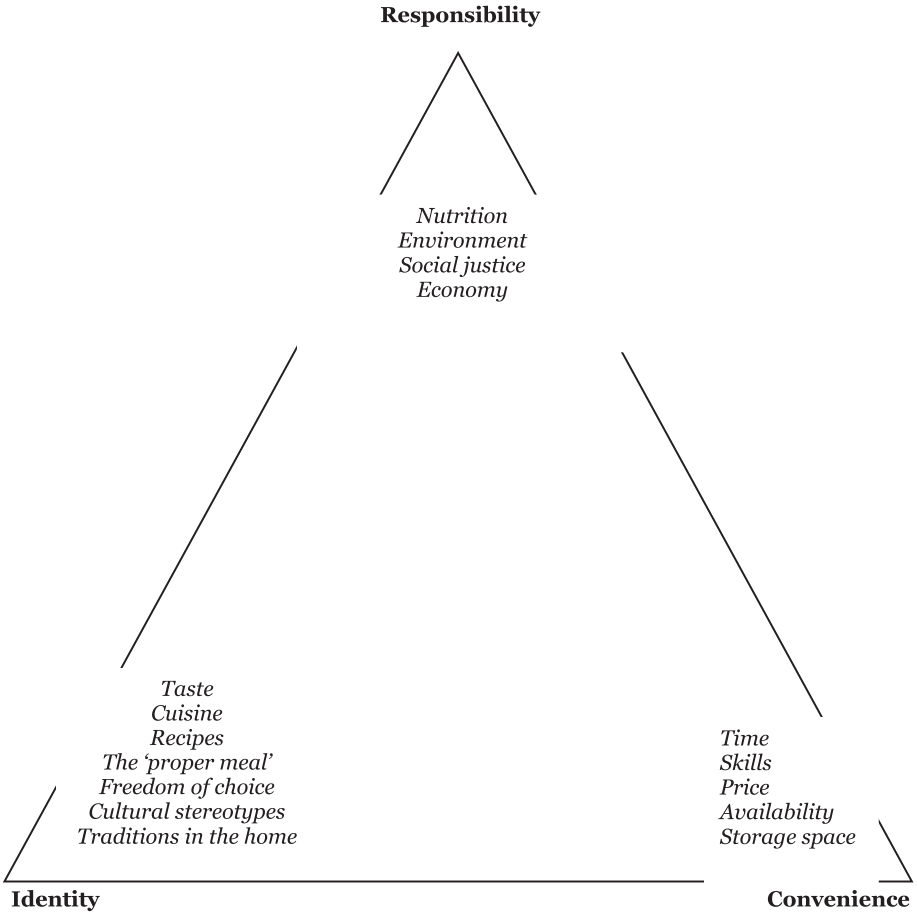


Fig. 2. Belasco's culinary triangle of contradictions (2008, reprinted with permission from the author), with examples pertinent to the Swedish school subject Home and Consumer Studies (taken from Bohm et al., 2015, Höijer, Hjälmeskog, & Fjellström, 2014 and National Agency for Education, 2011).

accessible (Belasco, 2008). Many products are also easy to consume, and have a long shelf life due to preparation methods such as salting and smoking (Leroy & Degreef, 2015).

Finally, *identity* (in the lower left corner) sees food as a psychosocial and emotional phenomenon. Eating habits are used to enact identities and show group belonging (Fischler, 1988), and food has symbolic meanings, such as meat being connected to masculinity and power (Nath, 2011). Consonant with this, 72,5% of Swedish and Norwegian low-meat consumers are female (Larsson, 2001). Meat can also be connected to a general human identity as apart from and superior to the rest of nature (Fiddes, 2004), but its connection to blood, suffering and death frequently makes it taboo (Ashley, Hollows, Jones, & Taylor, 2004; Lupton, 1996). Disgust for meat is quite common, and is often connected to the perceived intelligence and potential for bonding with the animal in question (Ruby & Heine, 2012).

Since the culinary triangle is meant to show contradictory influences on eating, an example might be a person who prepares a meat dish for their family because they find it easy (*convenience*) and because it symbolizes social bonding (*identity*), but they also feel guilty because of associations to animal cruelty (*responsibility*).

In conclusion, while we believe that a reduction of meat consumption might have positive consequences for public health and the environment, we acknowledge that applying such knowledge may be difficult due to social/emotional aspects and practical constraints. This led us to design a study where we could observe naturally occurring talk during cooking and eating among HCS students, who are expected to reason around food, health and the environment (National Agency for Education, 2011). By using the HCS context, we hoped to find out how the different aspects of the culinary triangle emerged as participants spontaneously discussed food choice and its possible consequences.

3. Materials and methods

3.1. Participants

The study was conducted between 2010 and 2012 in five villages and towns of between 1 000 and 120 000 inhabitants (Table 1). The chosen schools represented a convenience sample based on personal contacts and geography. Of the 59 students and five teachers that participated, all the teachers were female, 38 of the students were girls, and 21 were boys. The age group (10- to 16-year-olds) represented all the grades where HCS was taught in the area. The headmasters of ten more schools in the same municipalities were contacted by email in an effort to create interest in the study, but there were no positive responses. Since the sample was large and diverse enough for a detailed discourse analysis, no further efforts were made.

Both students and teachers were predominantly of Swedish ethnicity, and none of the catchment areas were especially disadvantaged. This was deemed acceptable since HCS is underresearched and the study exploratory.

The schools represented a range from the very rural to the urban. In the most rural area, people mostly worked in sectors like forestry, transport and healthcare, and there was a strong hunting tradition. On the other end of the spectrum was an academically oriented urban area with a history of veganism and a slightly less pronounced hunting culture.

3.2. Ethical considerations

Written, informed consent for audio recording, observations and video-taping was obtained from the teachers, the students and, for students under fifteen, also from legal guardians. The information letter explicitly stated that participants could drop out at any time without giving a reason, and stated that the aim of the research was to explore student perceptions of food and health in HCS. The study was approved by the regional ethical board (Dnr: 2010-255-31M). To ensure anonymity, a few inconsequential details about the schools and the participants were changed, and all participants were given pseudonyms. Teachers were given first names instead of surnames to emulate Swedish practice.

3.3. Procedure

The students belonged to ten different teaching groups, which were observed during one to five lessons each. Seven groups (grades 5, 7 and 8) were observed by the first author, and the remaining three groups (grade 9) by the second author. Speech was recorded with individual mp3 recorders, and the six groups where permission was obtained were also video-taped. The audio recordings were the main source of data, and the video footage was only used to clarify what participants were talking about and what they were doing. The observations were unstructured, but brief notes were taken about food products, student activity and times for main events, like meals and washing-up.

While most participants seemed fine with being observed and recorded, others were bothered, especially in grades 5 and 7. Two students opted to switch off the mp3 recorders for long periods of time. These students later declined further participation, but the recordings to date were allowed to be used. Most participants got

Table 1
Details about participants, schools and data collection in an observation study on Swedish Home and Consumer Studies lessons.

Type of place	Type of school	Observation groups (grade:group)	Age (years)	Number of lessons observed	Number of participants per lesson	Data collection methods
Village	Small, with a rural catchment area	5:1	10–11	3	5–7 students 1 teacher	Video, mp3, observation
		5:2		3	5–9 students 1 teacher	Video, mp3, observation
		8:1	14–15	1	5 students 1 teacher	mp3, observation
		8:2		1	7 students 1 teacher	Video, mp3, observation
		8:3		3	5–6 students 1 teacher	Video (one lesson), mp3, observation
		8:4		5	3–5 students 1 teacher	mp3, observation
Small town	Medium size, with a local urban catchment area	7	13–14	4	2–4 students 1 teacher	mp3, observation
Village	Large, with a large rural catchment area	9:1	15–16	2	4 students	Video, mp3, observation
Medium-sized town	Medium size, with a rural catchment area	9:2		2	6 students 2 teachers	Video, mp3, observation
	Large, with a local urban catchment area	9:3		2	4–12 students 1 teacher	Video, mp3, observation

used to their microphones after a while. The problems that did occur had no serious effect on the analysis, since it focused on routine food discussions that the students made no apparent effort to conceal.

3.4. Analysis

The data collection resulted in 165 h of student and teacher talk, spread out over 34 h of lesson time. All utterances about meat consumption and its reduction or absence were transcribed verbatim, resulting in approximately 10 500 words. We did not use any software apart from Word, as Discourse analysis is very context dependent, and each utterance needs to be interpreted on its own instead of assigning generalizing codes. The transcript was analysed with the help of the 27 tools described by Gee (2010). Beginning on a little 'd' discourse level, details like word choice, word order, intonation and grammar were interpreted for what participants meant and sought to achieve with what they said. The same utterance was then analysed on higher and higher levels of abstraction, until finally the results were summarised and theorised to create a big 'D' Discourse on meat.

For example (Table 2), the student utterance "Don't you fry bacon with potato pancakes? That's what you usually do" stressed two foods that went together ("bacon" and "potato pancakes") and the cultural practice ("usually do") that should guide behaviour. On the next level, the student was interpreted as using the authority of tradition to question the teacher's failure to supply bacon. On an identity level, the student thus placed herself in the cultural 'know' and the teacher as a breaker of rules, urging her to explain her behaviour. On the final, most theoretical level, we took the utterance to illustrate the 'proper meal' concept which sees meat as central.

In quotations, empty brackets ( ) denote unintelligible speech, double brackets (( )) contain descriptions and square brackets [ ] contain additional information. Brackets surrounding three dots (…) are used to show that data has been removed from the quotations, either because non-participants are speaking, or because participants speak about things irrelevant to the subject. All quotations are identified by a group number (Table 1).

4. Results

There were two major Discourses about meat that were in conflict with each other and made meat an ambiguous food. However, the two were not equally powerful. *The centrality of meat* dominated classroom talk, while *the threat of meat* only appeared

Table 2
Example of an analysis done on a student utterance about meat in the Swedish school subject Home and Consumer Studies, using Gee's 27 tools (2010).

Edith [Teacher], don't you fry bacon with potato pancakes? That's what you usually do. (Dina, grade 9)

Language and context

- **The Deixis Tool:** Dina uses the word 'you' to denote 'people in general'.
- **The Fill In Tool:** Dina infers a tradition where some foods go together.
- **The Making Strange Tool:** Why would specific culinary traditions be important in a classroom, which signals the learning of new things?
- **The Subject Tool:** Dina uses the general 'you' as a subject and the predicate 'do', thereby expressing normal behaviour.
- **The Intonation Tool:** Dina stresses the two foods that go together and the cultural practice ("usually do") that should guide behaviour. The second sentence is said in a lower voice, which makes it less directed at the teacher and more to herself and/or fellow students.
- **The Frame Problem Tool:** The group has been given a very specific assignment, where they need to modify a recipe to fit different dietary requirements, in Dina's case gluten free. Since she addresses the teacher in training, who is more directly responsible for the lesson than the group's ordinary teacher, this could be a reference to how the group is usually allowed things like bacon in their meals.

Saying, doing and designing

- **The Doing and Not Just Saying Tool:** Dina might be trying to change the teacher's mind about allowing bacon, or barring that, about future allowances. If she does not believe that she can change the teacher's mind, the utterance might just be an expression of disapproval, perhaps even to lower the status of the teacher or to mark herself as culturally 'in the know'.
- **The Vocabulary Tool:** Informal word choice. Just before this, when she talks to a fellow student, she uses 'should' instead of 'usually do', thus softening the wording for the teacher.
- **The Why This Way and Not That Way Tool:** Dina could, for example, ask directly if there is any bacon they can use, or urge the teacher to explain herself. This is a more underhand way of wording it, perhaps meant to elicit guilt. The repetition in the second sentence might be a way to further emphasize the authority of tradition, since the theme of the first sentence was the general 'you' instead of the act of frying bacon (See Topics and themes).
- **The Integration Tool:** Both sentences are independent main clauses. The second one supports the first by way of repetition, and no new information is presented.
- **The Topics and Themes Tool:** The theme of the first sentence is 'don't', the function of which is to construct something as obvious by wording it as a negative question. In the second sentence, the theme is changed to 'that' ('the act of frying bacon').
- **The Stanza Tool**: N/A

Building things in the world

- **The Context is Reflexive Tool:** Dina is trying to change the context by introducing cultural traditions that she constructs as relevant for cooking in HCS.
- **The Significance Building Tool:** She promotes the significance of cultural traditions and ignores the possible educational purpose of the meal.
- **The Activities Building Tool:** Dina is building a 'cooking' activity tied to (local) culture, maybe informed by habits in the home. In the process, she pits the school against the rest of society.
- **The Identities Building Tool:** Dina positions herself as a representative of a culture and the teacher as someone who breaks the rules.
- **The Relationships Building Tool:** Dina marks her relationship to (absent) carriers of tradition as stronger than her relationship to the school and the teacher. She explicitly questions the teacher's authority on culture, which would be unthinkable in some countries.
- **The Politics Building Tool:** Dina reserves the privilege to define what is 'the done thing'.
- **The Connections Building Tool:** She connects potato pancakes to bacon, and these together to common food habits.
- **The Cohesion Tool:** Dina strengthens the first sentence with a second one, and connects the new idea (bacon) to the old one (potato pancakes). Then she connects all of this to cultural traditions.
- **The Sign Systems and Knowledge Building Tool:** Knowledge is constructed as cultural 'common sense'.
- **The Topic Flow or Topic Chaining Tool:** The topic is the general 'you' throughout.

Theoretical tools

- **The Situated Meaning Tool:** The general 'you' can denote both people outside and inside the classroom, and thereby functions as a connector that brings the outside world into the HCS lesson.
- **The Social Languages Tool:** Dina's style level is informal.
- **The Intertextuality Tool:** Recipes and unwritten culinary traditions.
- **The Figured Worlds Tool:** Some foods go together, and deviating from these 'collocations' is strange even in an HCS classroom.
- **The Big 'D' Discourse Tool:** Meat is integral to certain dishes.

occasionally. *Centrality* was built on health, sensory aspects, culture and social relationships, while *threat* shared the focus on health and sensory aspects, but had the added dimension of psychological discomfort.

4.1. The centrality of meat

Meat was seen as the nutritional, sensory and cultural centrepiece of a meal, and could also play a central role in student relationships. Meat-eating was strengthening, irresistible and necessary. Consequentially, any reduction could lead to nutritional deficiencies, loss of pleasure and social deviance.

4.1.1. Nutritional health

In a nutrition context, the word 'meat' was always mentioned first when protein-rich foods were listed. It was needed for the body to survive, build muscle and perform:

> Teacher Olivia: You still have to have a certain, um … like, even if you don't want really big muscles, you must get it so that you still have a tension in the musculature of the body. So you can stand upright. (...) If you're to be strong you need to eat protein.
>
> Inez: What's, what's …
>
> Teacher Olivia: You don't get strong from this. [margarine] (7)

Here and elsewhere, the importance of protein was emphasised, and was directly or indirectly connected to meat through a chain of associations that went from non-human animal muscle via protein to muscle-building in the human body. Vegetarian sources were sometimes mentioned, but were seen as lacking and requiring compensatory behaviour:

> Teacher Edith: We need to get … I don't remember how many different [amino acids] there are, but it's maybe fifty different ones, or something like that. Um, it's a number of … we need to get, um, and um, most of them, it's no problem, we get them. Um, but in beans there are perhaps forty-five of these fifty, and to get the fifty we have to eat them together with pasta or rice or bread. (9:2)

Thus non-animal protein sources were constructed as problematic even when they were promoted as healthy alternatives. Because of the centrality of meat, one teacher said that "we usually don't have to even think about eating [certain nutrients]" because they were found in meat. The nutrition focus was largely limited to teachers and mirrored the educational context of HCS, but student utterances occurred too, especially among older students (grades 8 and 9). Among younger students, the reference to nutrients was less explicit:

> Ingrid: ((annoyed)) Nice if we'd been allowed to cook something real, instead of just like fruit compote, just ((ironic expression of pleasure)) mmm … but before sports practice, are you more likely to make like pasta and a minced meat sauce, or fruit compote? (7)

Here, Ingrid expressed the nutritional value of a meat-containing dish by calling it 'real' food, and by tying it to physical exercise.

4.1.2. Sensory experience

Meat was also constructed as central to taste, for example minced meat in a lasagne:

> Hugo: D'you think … There's no (unintelligible ingredient) that's as … as good as this. You need meat to make this good.
>
> Martin: I wonder if quorn is good.
>
> Hugo: What?
>
> Martin: Quorn.
>
> (…)
>
> Martin: But it's, like, it's sort of as healthy as meat or something, or so they say. (9:1)

When Hugo wondered if anything could rival the taste of meat, Martin brought up quorn as a possible alternative, but neither of the boys had tried it. Martin also referred to the health aspect of meat, making it the reference point for the vegetarian alternative.

The ubiquitous taste for meat was sometimes questioned, but it was always re-established:

> ((While making a pizza for a temporarily absent boy))
>
> Elmer: Let's make his [pizza].
>
> Tomas: Yeah, let's just put the things on. A bit of ham an' …
>
> Elmer: Or wait, wait To[mas] … we don't know what he wants on it. Maybe he wants something else.
>
> Tomas: I know he wants ham. He just has to like ham. (5:2)

Here, even though Elmer stopped to consider his friend's taste preferences, Tomas immediately dismissed any misgivings about the ham.

4.1.3. Culture

In addition to nutrition and taste, meat was culturally central, evidenced by recipes and traditions. Red meat was the prototypical centrepiece of a meal, but it could be replaced by fish or poultry without there being a 'hole' on the plate. Even when the meat was a side dish, it was still essential:

> Dina: Edith? Don't you fry bacon with potato pancakes? That's what you usually do.
>
> Teacher Edith: Yeah, but today we're going to …
>
> Dina: Ah, that's so good. (9:2)

In this exchange, the teacher responded to the student's complaint by constructing the exclusion of meat as something unique for that particular lesson. Later, Dina's fellow student brought up the absence again:

> Ylva: Aren't you supposed to have something with it? I usually have like bacon and jam.
>
> Dina: I know. We didn't make any bacon with it. (9:2)

Here, the cultural tradition of having bacon with potato pancakes was explicitly related to its sensory appeal. Jam was mentioned too, but was not repeated later during the meal, when the girls complained once again about the absence of bacon.

Perhaps because meat was so central, it was important to use a

certain amount. For example, while a teacher provided too little pineapple for everyone to use as a pizza topping, there was more than enough ham. On a few occasions, 'vegetarian' was even used as a joking term for students who ate less meat or more vegetables than others:

Sanna: ((ironically)) What a lot of ham you took! ((laughs))

Lisa: Yes, I know.

Mattias: ((ironically)) Are you having that much ham?

Lisa: Yeah.

Ove: Are you a vegetarian? ((laughs))

Lisa: ((indignantly)) No! (5:1)

Here, Lisa became conspicuous for using one slice of ham on her toast instead of two, and the epithet 'vegetarian' was taken as mocking.

4.1.4. Social relationships

As evidenced by the 'vegetarian' exchange, the cultural centrality of meat made it important for social relationships. Students who did not like or had not tasted certain kinds of meat were open to questioning and ridicule.

Being such an attractive commodity, meat could also be used to mark the nature of relationships. For example, a group of girls distributed leftover bits from a grilled chicken to the boys in a neighbouring kitchen unit:

Cecilia: Offer that to Per.

Per: What?

Anders: I want some skin too! ((laughs))

Lars: I want it … put … You get all the leftover chicken if I get the skin.

Per: Sure.

Lars: Thanks. Oh, it's so good. (8:4)

The eagerness and gratitude of the boys can be compared to the joking way in which they tried to give away their own leftover vegetables from a chicken soup during another lesson:

Per: Let's go sell it in the canteen. ((laughs))

Anders: ((laughs, pretends to advertise the soup)) Soup anyone? Reduced price, only free! (…) Buy soup? Soup, soup … ((sighs, clicks his tongue)) We'll have to, like, pay someone ((laughs)) to eat this crap. (…) ((Trying to convince a fellow student)) Look, what have you got to lose? ((Jokingly)) Like, twenty-eight years of stomach flu, but… (8:4)

The boys continued trying to give away their soup for eight minutes, but it finally ended up in the rubbish bin. Contrary to the valued gift of chicken skin, the vegetables were universally rejected, almost becoming a common 'enemy' to joke about and bond over instead.

The importance of meat to relationships could also be seen in situations where students who tended to be marginalised by their friends expressed fear of not getting their share:

Adele: Are all of you having ham?

Nina: Yeah.

Beatrice: Yeah.

Nina: I *really* want some. If I can have it. (5:2)

Even though Adele addressed both Nina and Beatrice, assuming that they both wanted ham, Nina emphasised her eagerness, presumably in order not to be left out.

In another case, the relationship took centre-stage instead of the meat:

Lilian: Are you having ham?

Liv: Are you having ham?

Lilian: Are *you* having ham?

Liv: But I don't know … yeah, not too much and not too little. (5:1)

Here the meat was not an inevitable ingredient, but it still played an important role. Liv seemed unwilling to decide, as if she prioritized emulating Lilian. This did not happen with any other ingredients.

4.2. The threat of meat

A negative Discourse on meat emerged as well, touching on danger, disgust and guilt, but it was not strong enough to challenge centrality, and did not noticeably affect consumption among meat-eaters.

4.2.1. Danger to health

The health aspect of the threat Discourse deviated from the centrality one, by focussing on dangers to health rather than the nutritiousness of meat. The bacterial threat required eaters to take certain precautions, such as making sure that the meat was cooked through. Students frequently joked about the possibility of contamination, mainly from chicken, and the teacher Olivia was very adamant about frying the minced meat until it was completely brown.

Meat was also constructed as dangerous because of its high fat and protein content. Even there, some students used extreme examples to defend a high consumption:

Elina: But if you lift weights for like three hours a day ( ) …

Amy: But we still eat too much meat.

Paula: But … um … if you sort of, if you do extreme sports ( ) then it's obvious, (like) in special cases. But sort of generally …

Amy: (Yeah but) like, we eat way too much meat.

Paula: Yeah, but like, if we talk proportions, how you're supposed to eat according to the plate model … if you do extreme sports, for example, and (it), I mean that you …

Elina: If you're a bodybuilder.

Paula: Yeah, sort of. Then … then … then of course you need to … sort of … compensate. (9:2)

The teacher pointed out that not even body-builders needed additional protein. A few minutes later when discussing the dangers of fat, she suggested eating leaner meat. Her students pointed out that bacon was tasty, and she retracted by recommending that they remove surplus fat from the pan. Thus the centrality of meat-eating – even fatty meat – was re-established in the middle of a discussion about fat, protein and physical health.

4.2.2. Sensory experience

The sensory aspect of the threat Discourse could refer to taste, but was mainly tied to the other senses. Uncooked meat, leftovers, non-meat components such as fat or cartilage, and certain kinds of sausage could be seen as disgusting. Students wanted to avoid touching smelly or slimy products, but expressed no trouble eating the cooked product. Meat that resembled the original animal could also elicit disgust, as could uncertainty of which parts were edible:

> Cecilia: ((While deboning a whole chicken)) This is disgusting, I'm removing his rib!
>
> Josefine: Oh! ((laughs)) Oh damn …
>
> Cecilia: Can you eat that? Wah, you can't eat that … You can eat this, right? ((Ironically)) God, I feel clean! (8:4)

In addition to her ongoing monologue, Cecilia's disgust was visually evident from her trying to handle the chicken with only her fingertips. The way she stressed the pronoun 'his' emphasised the origin of the meat, and this may also have been an allusion to ethical concerns.

4.2.3. Psychological discomfort

Citing reasons to do with health, ethics, and the environment, a few female students expressed guilt about eating meat, but also an inability to stop:

> Isabelle: ((About a lamb dish)) I think it's kind of horrible, but it is kind of good. (9:3)

Here and elsewhere, students used 'I' formulations to admit that eating meat was questionable, and more objective phrases to explain why they still did it. This directed attention away from the individual towards external conditions such as the tastiness of the meat, and may have been a way to minimise the threat to psychological comfort.

To sum up, the threat of danger, disgust and guilt sometimes challenged the centrality of meat, but the Discourse was not strong enough to visibly affect consumption. Instead, these aspects were minor hurdles that could be overcome for the sake of getting a share of the universally attractive meat.

4.3. Gender and meat

Contrary to expectation, there was no clear gender trend. In a few cases, meat was indirectly connected to masculinity, but the tendency was weak. For example, one boy quoted Regular Ordinary Swedish Mealtime (2011a; 2011b), a YouTube video made by young men that shows exaggeratedly masculine, very physical cooking. Emulating the video, the boys characterised the bacon as a living opponent to beat down:

> Per: Slice the bacon ((solemnly, quoting the video, in English)) Swedish style. ((laughs))
>
> Lars: ((Quoting the video)) Use your body! No … [just kidding] ((laughs))
>
> Teacher Birgitta: How's it going?
>
> Lars: ((laughs)) Yeah, no, we … tenderized it. No, ((laughs)) it moved! (8:4)

Girls, on the other hand, sometimes expressed feelings of guilt in relation to meat. Other instances of possible gender work was when male students dismissed female students as vegetarians because they liked vegetables, which tended to link vegetarianism more to females and meat-eating to masculinity. The only vegetarian in the data was female and the only boy who overtly contemplated becoming a vegetarian rejected aspects of traditional masculinity and local culture through the way he spoke and moved. Although eating meat could indirectly be seen as something masculine (for example in the reference to the YouTube clip), there were examples of both girls and boys wanting more meat than they got, and of both girls and boys being content with a small amount. Thus while there were some allusions to gender in participant utterances, actual consumption and expressions of meat enjoyment did not differ between boys and girls. It is possible that female participants ate less meat than their male counterparts, but such differences were not detectable in the video footage.

All in all, the centrality of meat pervaded the whole data set, and was evident both among male and female participants, including teachers. There was no obvious difference between schools, although there was a slight tendency for the older girls in the largest town to be more concerned with the threat Discourse. However, this could also have to do with the fact that older students cooked more food as opposed to making desserts or snacks.

5. Discussion

The most important finding was that the centrality of meat was so dominant that even conscious questioning ended up strengthening it. Fig. 3 shows how centrality influenced all the aspects of Belasco's culinary triangle of contradictions (2008). The order of the aspects have been changed to reflect the *power* (Janks, 2010) of *identity*, which is placed at the apex.

The sensory experience of meat could be both positive and negative, mainly depending on type of meat and the senses involved. For example, cooked pieces of chicken in a soup were tasty, while a raw chicken carcass was disgusting to touch. This might also illustrate that the more the meat resembles the original animal, the more it elicits disgust (Lupton, 1996). However, such disgust was overcome for the sake of culture and taste.

The model also illustrates that *responsibility* was ambiguous, with meat constructed as both central and threatening to health. This paradox restricted *access* to health by reducing consumption, since this was potentially dangerous. It may be that the *power* of *identity* influenced views on health to make meat more positive.

Likewise, the *power* of *identity* influenced *convenience* such that recipes, skills and availability were a function of culture, sensory preferences and social relationships. Both recipes and participants' skills in composing a meal were based on the centrality of meat. This meant that the absence of it could make cooking more difficult (less convenient), and showed a lack of *diversity* and *design*. These problems might be solved by *access* to recipes and cooking methods based on other ingredients than meat.

Given its relatively high price (*convenience*), meat was made available to a large extent compared to other ingredients. Thus the meat-centred 'proper meal' pattern (Ekström, 1990) was constantly reproduced by both students and teachers, and attempts at *responsibility*, for example by making health and environmental claims about the advantages of reducing intake, were thwarted by the centrality of meat to *identity* aspects like culture and taste. Such reproduction of dominant Discourses is largely subconscious, and should not be understood as anyone's 'fault', but rather as evidence for *power* (Janks, 2010).

5.1. If meat is nutritious, how can a reduction be regarded as healthy?

Nutritionally, meat was viewed as almost indispensable, and its

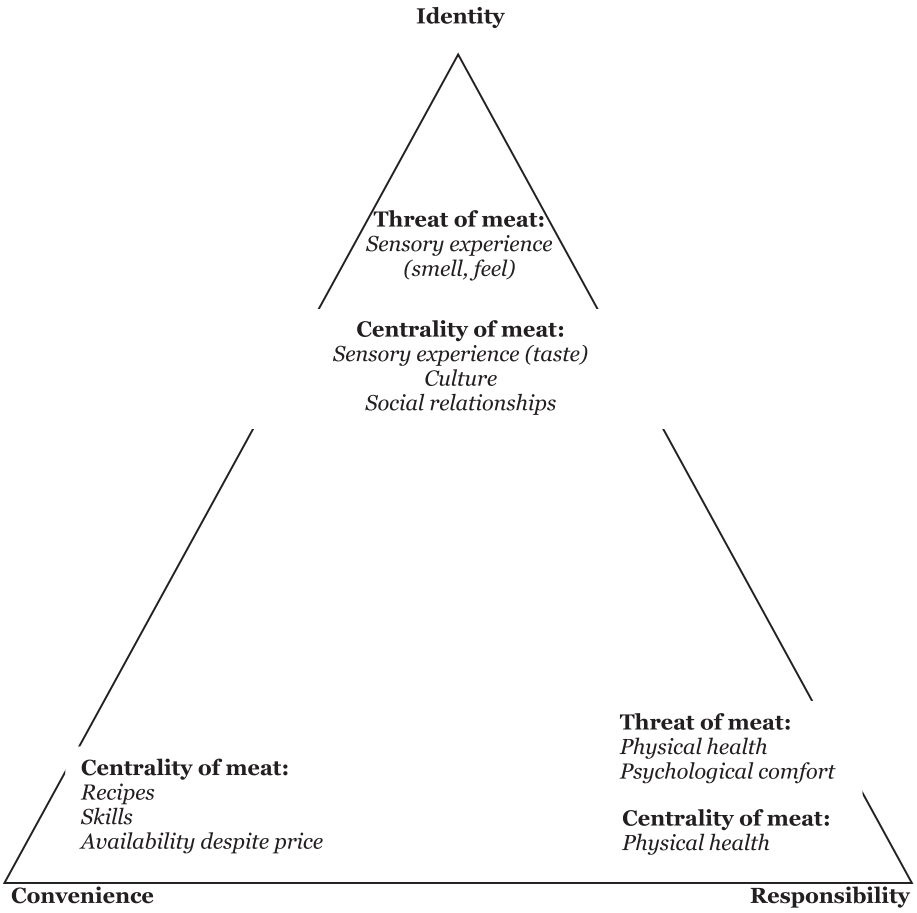


Fig. 3. Belasco's culinary triangle of contradictions (2008), reprinted with permission from the author), with examples from Discourses on meat in the Swedish school subject Home and Consumer Studies.

absence was associated with increased risk for nutritional deficiencies. The focus on protein was exaggerated, since deficiency is rare in Sweden, even for vegetarians, and the complementing of amino acids is often unconsciously done (Hörnell, Lagström, Lande, & Thorsdottir, 2013; Larsson, 2001; Sanders, 1999). A fully vegan diet may be lacking in some micronutrients (Craig, 2009), but such a focus again supports the centrality Discourse, since meat likewise needs to be complemented with plant foods in order to be complete (Swedish National Food Agency, 2001). For example, eating only animal products would lead to vitamin C deficiency.

The emphasis on protein in an affluent society like Sweden may be connected to issues of beauty and fitness. In the data, nobody mentioned appearance explicitly, but a side effect of building muscle is a tauter body, which is a positive sign of self-control in the West (Counihan, 1992; Taylor, 2011). Further support for this explanation is offered by the common view among young people that health is intrinsically tied to weight (Taylor, 2011). Another explanation for the focus on protein may be the recent upsurge of weight loss diets rich in protein and fat, and this in turn may have strengthened the status of meat (Johansson et al., 2012).

Whatever the mechanisms behind it, the *power* of the centrality Discourse restricted student *access* to a lower meat consumption. Since the *diversity* of human diets shows that a reduction is not inevitably connected to physical danger (Sanders, 1999), a *redesign* of the meat-centred 'proper meal' is theoretically possible. For example, when listing protein-rich foods, teachers can mention non-animal foods first. They can also concentrate on nutrients that young people often ingest too little of, like iron (Enghardt Barbieri, Pearson, & Becker, 2006).

The deconstruction of centrality involves advanced cognitive processes and can be viewed as too difficult for young people to master during the mere 118 h of HCS instruction that they get in Swedish compulsory school. On the other hand, much of food's relation to health is already widely known, if not practiced, by students and others (Jenkins & Horner, 2005; Kearney & McElhone, 1999). Teachers could build on such awareness to develop students' critical thinking. This is neither advocated nor discouraged here. Critical food literacy is primarily seen as a goal for teachers and teacher educators, but also as possibly applicable in the classroom. After all, the Swedish curriculum includes the ability to reason and analyse (National Agency for Education, 2011), and through critical food literacy, the HCS teacher has a chance to show how this can be done. However, other aspects of centrality complicate the issue.

5.2. If meat is important to students, how can it be criticised?

Meat was also central from a sensory, cultural and social viewpoint. Students objected to a reduction on account of taste, which is tied to the emotions (Evers, Adriaanse, de Ridder, & de Witt Huberts, 2013). Culturally, even using slightly less meat than the expected amount could elicit questioning or teasing. From a social viewpoint, meat was a stronger marker for friendship than vegetables and a more valued gift (cf Counihan & Kaplan, 1998; Fiddes, 2004; Leroy & Praet, 2015). All this applied to both girls and boys, and may reflect the regional importance of meat.

Since the reduction of meat was socially deviant, and deviance

in food habits may be seen as a rejection of community values (Fiddes, 2004), participants' ability to make decisions based on health and environmental concerns was limited. To borrow concepts from both Janks (2010) and Belasco (2008), we may say that *access* to *responsibility* was restricted by the *power* of the meat-eater *identity*. This means that the reasoning around food, health and environment required by the HCS syllabus (National Agency for Education, 2011) may implicitly question some students' backgrounds, while others' are instead validated.

To take an example from the data, bacon was viewed as an essential side dish for potato pancakes, but the teacher did not provide any. The reason was not specified, but it might have had to do with health, since the same teacher argued for the reduction of bacon during an earlier lesson. Thus the culture that constructed bacon as important was ignored for the purposes of pedagogy, and any student in the same group who may have agreed with the goal of reducing meat consumption was validated.

It may even be that the centrality of meat is increasingly challenged nowadays, judging from the rising number of vegetarians found in a telephone survey (Djurens Rätt [Animal Rights], 2015), and that meat-eaters therefore need to reaffirm and defend their identities. Many school canteens and restaurants serve vegetarian alternatives nowadays, but our findings indicate that vegetarianism is not strong enough to challenge the centrality of meat at the moment. In a forthcoming paper (Bohm, Lindblom, Åbacka, Bengs & Hörnell, in review), we will deal more in depth with how vegetarianism relates to the centrality of meat.

Of course, if teachers always let students talk about and use food based on the *identity* aspect of the culinary triangle of contradictions (Belasco, 2008), learning about food, health and the environment at all may prove very difficult indeed. It could also be argued that the end goal of giving students better tools for making responsible choices justifies questioning their current practices, especially since some young people's food intake may be nutritionally deficient (Enghardt Barbieri et al., 2006). However, there is a risk of 'victim-blaming': a too-strong focus on personal responsibility can obscure inequalities in student backgrounds that influence their ability to make food choices. It also ignores the social norms that help create food behaviours in the first place (Oyserman, Smith, & Elmore, 2014), and may therefore give rise to the kind of guilt about eating meat that was seen among the female students in the data. This seems counterproductive when the goal is to empower them. Added to this, adolescence is typically a period of non-conformity and a search for social belonging, which means that the very act of obeying nutritional advice can clash with student identity (Lupton, 1996; Stevenson, Doherty, Barnett, Muldoon, & Trew, 2007).

If, then, a student whose food culture centres on meat is urged to problematize meat-eating, we may ask together with Evans, Evans, and Rich (2003) whether it is right to erode the joy of eating 'bad' foods, when the student's social environment leaves little room for change. Even though they are perhaps evaluated by the teacher according to a threat/health Discourse (cf Bohm et al., 2015), their peers may evaluate them according to the centrality Discourse, especially if the lesson includes a shared meal (cf Fletcher, Bonell, & Sorhaindo, 2011; Stead, McDermott, MacKintosh, & Adamson, 2011). Such tendencies were seen in this study when students violated the centrality Discourse and were put in their place by peers. In a worst case scenario, this conflict could lead them to sacrifice *responsibility* (including their grades) for the sake of *identity* (Belasco, 2008).

The problem of *access* is thus a two-edged sword: if the centrality of meat is not challenged, students are denied an alternative Discourse that might enhance physical health and lessen environmental impact; on the other hand, if students' performance of identity such as regional belonging, class, gender and/or age is tied to meat because of the centrality Discourse, a reduction may have a negative impact on their psychosocial health.

5.3. Making identity salient strengthens identity

To complicate matters further, studies have shown that when group norms are made salient, people identify with them even more (Oyserman, Fryberg, & Yoder, 2007). In other words, if the reduction of meat does not harmonize with a student's identity, an explicit deconstruction of the centrality Discourse which makes social norms salient may strengthen their resistance. This was illustrated by the grade 9 girls who, even as they acknowledged eating too much meat, brought up exceptions to the rule that re-established the nutritional centrality of meat. Of course, teachers can avoid the topics of nutrition and social norms altogether, but the Discourses are inescapable, since the meanings they express are embedded in the food itself (Lupton, 1996). Therefore, if we choose not to make the arbitrary nature of the meat Discourse explicit, its power is allowed to endure (Janks, 2010).

In the end, perhaps a reduction in meat consumption is only acceptable to those who already reject mainstream identities/dominant Discourses, like the would-be male vegetarian in the data. For others to follow, a *redesign* of Discourses on things like gender, region and class might be needed – a daunting task indeed. Any attempt would need to use both local and global *diversity* to show that, for example, male athletes can be vegetarians, and a 'northern inland identity' can be based on locally grown crops. Role models may even be found within the local HCS group, although individual student food behaviour is a sensitive issue and must be handled with care.

5.4. The problem of replacing power with power

Unfortunately, even a successful deconstruction of the centrality Discourse cannot be neutral, since any new *design* inevitably serves the interests of a particular group (Janks, 2010). Thus the threat Discourse has its own *power*, not least because of its ties to nutrition science. HCS teachers have access to this privileged form of scientific Discourse, and can use it to wield power over their students, even though they are predominantly female (Lindblom, Arreman, & Hörnell, 2013) and therefore in some ways socially marginalised. In contrast, the groups that most need better physical health are marginalised in class and regional terms but privileged as males (Lindroth, Lundqvist, Lilja, & Eliasson, 2014). This means that boys and working class students may be less receptive to the 'feminine' area of health behaviour (Courtenay, 2000; Gough & Conner, 2006; Holm, 2003; Rothgerber, 2013), even though they may be more in need of it than students who share the teacher's background and (possibly) healthier habits. This is especially relevant when it comes to the reduction of 'masculine' meat (Rothgerber, 2013; Ruby & Heine, 2011).

We can also speculate that nutrition science is seen as a part of the dominant culture, and that this may foster resistance in students from other groups. Such resistance might for instance be based on class and/or region (cf O'Neill, Rebane, & Lester, 2004; Oyserman et al., 2007), but further research is needed to confirm this, perhaps in the form of observations in areas of Sweden not covered in this study. In the end, it could even be questioned whether the rational scrutiny of an emotional issue like food and health should be a part of the curriculum at all. Then again, if it is not, precisely the people who need critical food literacy might be left in the dark.

6. Limitations of the study

The study focused on a small sample in a limited geographical area, which may lower transferability. The schools in the study were located in areas with a more or less pronounced hunter culture, but also (in some cases) with a high historical prevalence of veganism, both of which may have influenced participant beliefs and opinions. However, the Discourses found reflect the results of earlier research, and their interplay illustrates the age-old dilemma of food choice based on identity, responsibility or convenience. To enhance transferability, we described the materials and methods in great detail.

There was an over-representation of female participants, because two of the studied classes were divided into gender homogenous groups, with all-female groups having HCS during the studied semester. Since meat is so connected to masculinity, the over-representation of girls may have reduced the focus on things like strength. Despite this, the centrality Discourse was extremely dominant, which shows that even among people who are less compelled to value meat, its power remains strong.

There was next to no talk about animal welfare or environmental concerns. One explanation for this absence may be that the chosen lessons focused on personal health issues. Moreover, the local emphasis on hunting in the studied area may have lessened concerns about climate impact, transportation and animal welfare.

7. Conclusion

There is a possible contradiction between physical and social/emotional health that makes application of nutrition advice difficult for people whose identities harmonize with the *centrality of meat* Discourse. Critical food literacy can help teachers of Home and Consumer Studies challenge the Discourse and give students access to responsible food decisions. However, such challenging risks 1) obscuring structural health inequalities, 2) validating some students and 'victim-blaming' others, and 3) strengthening student identification with social norms. If the end result is just guilt over 'bad' choices, or a rejection of physical health and environmental concerns in an effort to defend identity, students are not empowered. Therefore the issue should be handled sensitively.

A societal redesign of dominant Discourses on things like gender, region and class may be needed to really affect views on meat consumption, but individual HCS teachers can make a small contribution by helping students deconstruct the arbitrary centrality of meat. The threat Discourse should also be subject to scrutiny where it occurs, so that students are given tools for the reasoning around health and environment required by the syllabus. Since time is short, concrete strategies for applying critical food literacy in the classroom are needed, some of which have been mentioned in this article. The development of such strategies can also be made a part of teacher education.

By relating our results to earlier research on norms surrounding the consumption of meat, we have shown that the Discourses in the current study reflect broader societal ones, and that the aspects of *identity*, *responsibility* and *convenience* may clash for some people where meat is concerned. Food habits are established early and are often difficult to change. We conclude that as long as meat is constructed as central, individuals who try to decrease their consumption may be questioned. Further research may clarify whether the centrality of meat is less pronounced in other contexts than HCS in the north of Sweden. Also, an intervention study might explore whether a deconstruction of meat Discourses can facilitate change.

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