“We’re made of meat, so why should we eat vegetables?”

Food Discourses in the School Subject Home and Consumer Studies

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"Trying to explain why a catalogue is a catalogue does strike me as silly, I won't lie. It makes me wonder what my eulogy will be like. 'She was a valuable contributor to society: her contributions include dozens of piles of paper littered with explanations that any small child would consider redundant.'"

(Dr Kayla Kreuger McKinney)

I can easier teach twenty what were good to do than to be one of the twenty to follow mine own teaching.

(William Shakespeare)

Fett kyligt jobb å ba sitta å lyssna på de dom gör.
[What a chill job, to just sit and listen to what they're doing]

(Participant in study, talking about me)

To Magnus, who kept me sane and fed.

Table of Contents

Preface

The seed to this dissertation was sown in 1980, when a pig-headed five-year-old went to nursery school. Needled by the arbitrary demand that everyone decorate a cushion using cross stitches, she refused point blank. Her shocking behaviour resulted in a compromise: she was allowed to stitch *almost* the way she wanted. Of course that five-year-old was me, and my first clash with the educational system was quickly followed by others. I didn't want to write the number 5 the way they told me to; I wrote in all caps because why not; the look of my maths book was apparently woeful (but so was the lesson during which the defacement took place).

With time, my rebelliousness was suppressed and I started following the rules. I became what is generally known as a 'good girl'. In hindsight, the choice to conform makes me angry, but at the time it made perfect sense. Since I had to survive countless years of schooling, I went for the most effective strategy. After all, that's what education is all about, isn't it? The socialization of children into a specific culture. Imagine my dismay when, as a teacher, I was suddenly in the shoes of the socializer. While not always conscious of why, I had trouble reconciling myself with that role, because my childish rebelliousness never left me. I understood the students too well, and I didn't want to be the one to tell them stupid things like 'Take off your hat'.

Finally, as a PhD student, I became five years old again. I battled everything (secretly, because you know… 'good girl'). I didn't want to learn. I didn't want to think like *them*. I didn't want to adopt the perspective of someone who thought there was just one way of doing science, let alone of viewing the world. Each new idea that I managed to assimilate into my own thinking was a struggle. Every time I gave an inch, I thought, 'And yet it moves'.

So. My project has been one long string of grudging compromises. It's been exhilarating at times, but also distressing. Once again, I've encountered arbitrary rules about (the equivalent of) cross stitching. And once again, I finally caved and started following some of those rules – because if I hadn't, I would never have ended up where I am today: writing the foreword to my finished dissertation. Perhaps it should come as no surprise that my interest always lay in student resistance. In a way, I may have been destined all along to put myself back in the shoes of that little girl who didn't want to cross stitch, and – using one of the most privileged forms of Discourse available, the academic dissertation – finally give her a voice in the world.

Ingela Bohm

Abstract

Background

Food has many different functions. On a physical level, it is needed to survive and to maintain health, but it also has many social, psychological, and emotional meanings. For example, food is used to build relationships, to mark hierarchies, to celebrate holidays, and to influence mood and self-image. Different foods have different cultural meanings, and people are socialized from an early age to recognize and utilize their symbolic value.

One arena where food occupies a central position is the Swedish school subject Home and Consumer Studies (HCS), which focuses on both the physical and the psychosocial dimensions of food-related health. Since these dimensions are not always compatible, the aim of this dissertation was to explore how students and teachers of HCS use big 'D' Discourses to talk about and handle food, with a special focus on vegetables, meat, vegetarian food, and sweet foods.

Methods

Fifty-nine students and five teachers were observed, recorded, and in some cases video-taped. Participants' talk about vegetables, meat, vegetarian food, and sweet foods was transcribed verbatim and analysed for big 'D' Discourses.

Results

Students mostly based their choice of vegetables on sensory and cultural Discourses. Some vegetables were mandatory and others were optional, depending on whether or not they were part of a recipe or a cultural tradition. The health Discourse was only used if a specific assignment demanded it, and was closely tied to the evaluation Discourse.

Contrary to the sometimes optional status of vegetables, meat was seen as central in the sensory, cultural, health, and social Discourses. Therefore the reduction of meat could be problematic. It was regarded as simultaneously healthy and unhealthy, and it could elicit disgust, but whenever participants talked about decreasing meat consumption, its centrality was invoked as a counterargument.

As an extension of this, vegetarian food was seen as 'empty', deviant, and an unattainable ideal. Access to vegetarian food was limited for meat-eaters, and

vegetarians were othered in both positive and negative ways. When vegetarian food was cooked during lessons, it was constructed as something out of the ordinary.

Sweet foods could be viewed as a treasure, as something dangerous and disgusting, or as an unnecessary extra. Home-made varieties were seen as superior. Sweet foods gave social status to both students and teachers, and they could be traded or given away to mark relationships and hierarchies, but also withheld and used to police others.

Conclusion

In summary, two powerful potential opposites met in the HCS classroom: the Discourses of normality (sensory, cultural, and social Discourses), and the Discourses of responsibility (health and evaluation). Normality could make physically healthy food choices difficult because of participants' social identity, the conflicted health Discourse, and too-strict ideals. On the other hand, some people were excluded from normality itself, notably vegetarians, who were seen as deviant eaters, and teachers, who had to balance state-regulated goals in HCS against local norms.

To counteract such problems, teachers can 1) focus on sensory experiences, experimental cooking methods, and already popular foods, 2) challenge normality by the way they speak about and handle different types of food, 3) make cooking and eating more communal and socially inclusive, 4) explore the psychosocial dimension of health on the same level as the physical dimension, and 5) make sure they do not grade students' cultural backgrounds, social identities, or taste preferences. This might go some way towards empowering students to make informed choices about food and health. However, scant resources of things like time, money, and equipment limit what can be achieved in the subject.

List of original papers

Paper I

Bohm, I., Lindblom, C., Åbacka, G., Hörnell, A. (2015). 'Don't give us an assignment where we have to use spinach!' Food choice and discourse in home and consumer studies. *International Journal of Consumer Studies, 40*(1), 57–65.

Paper II

Bohm, I., Lindblom, C., Åbacka, G., Bengs, C., Hörnell, A. (2015). "He just has to like ham"– The centrality of meat in home and consumer studies. *Appetite, 95*, 101–112.

Paper III

Bohm, I., Lindblom, C., Åbacka, G., Bengs, C., Hörnell, A. (2015). Absence, deviance and unattainable ideals–Discourses on vegetarianism in the Swedish school subject Home and Consumer Studies. *Health Education Journal*, *75*(6), 676–688.

Paper IV

Bohm, I., Åbacka, G., Bengs, C., Hörnell, A. (Manuscript). "You're a sugar addict!" – Sweetness and Health in Home and Consumer Studies.

Abbreviations

HCS Home and Consumer Studies

WHO World Health Organisation

Enkel sammanfattning på svenska

Mat har många olika funktioner. Rent fysiskt behöver vi den för att överleva och behålla hälsan, men den har också en rad sociala, psykologiska och känslomässiga betydelser. Exempelvis används mat för att bygga relationer, för att markera hierarkier eller tider på dagen och för att påverka humöret och självbilden. Olika livsmedel har olika symboliskt innehåll, och barn socialiseras tidigt in i ett visst sätt att äta och tänka kring mat.

Ett område där mat har en central plats är det svenska skolämnet hem- och konsumentkunskap (HKK). I kursplanen finns ett starkt fokus på både fysisk och psykosocial hälsa, men för en del människor kan dessa dimensioner ibland vara mer eller mindre inkompatibla. Därför ville jag i denna avhandling undersöka hur lärare och elever pratar om och hanterar olika sorters mat i HKK och vad detta kan få för konsekvenser för lärandet om hälsa.

Jag observerade och spelade in fem lärare och 59 elever med mp3-spelare under 26 HKK-lektioner på fem olika skolor. I vissa fall där jag fick tillåtelse filmade jag också det som hände. Därefter transkriberade jag allt tal om grönsaker, kött, vegetarisk mat och sötsaker och analyserade detta tal med hjälp av diskursanalys för att få reda på vad deltagarna i studien sade ”mellan raderna”, det vill säga hur deras världsbild kring olika livsmedel såg ut.

Resultatet visade att elever i de flesta fall var fria att välja grönsaker utifrån den egna smaken, förutom när receptet gjorde en viss grönsak obligatorisk eller när en skoluppgift krävde att man skulle ta hänsyn till hälsa. När läraren ansåg att en grönsak var obligatorisk var det mycket svårt för eleven att undvika den, medan däremot grönsaker som bara sågs som tillbehör i många fall blev ignorerade. Vad gällde hälsa kunde grönsaker vara ”allmänt nyttiga”, men oftare var de bärare av ett specifikt näringsämne som behövdes för att lösa en skoluppgift. I några fall sågs de som tomma och värdelösa.

Kött var centralt och svårt att avstå ifrån, inte bara på grund av smaken utan även för att det ”hörde till” de flesta rätter och gav livsviktiga näringsämnen. Samtidigt som det sågs som hälsosamt kunde det också vara farligt, eftersom man kunde äta för mycket protein eller mättat fett. Kött kunde användas som relationsbyggare mellan elever och för att markera status i klassen, så att de som riskerade att hamna utanför var rädda att inte få lika mycket kött som andra. Protein sågs som viktigt och var kopplat till manlighet, muskler och styrka.

I motsats till kött sågs vegetarisk mat som ”tom”, annorlunda och ett ouppnåeligt ideal. Det var svårt för icke-vegetarianer att få tillgång till vegetarisk mat, förutom när det utgjorde ett särskilt lektionstema. Maten sågs som bristfällig eftersom den inte innehöll kött, och den krävde extra planering för att se till att man fick i sig alla aminosyror. Det kunde vara socialt krångligt att vara vegetarian eftersom det krävde extra jobb av kompisar och skolkökspersonal, men många respekterade vegetarianens val och ansträngde sig för att göra en särskild portion åt dem.

Sötsaker var åtråvärda, men också farliga, äckliga eller onödiga. Hemgjorda bakverk hade högre status. Sötsaker kunde användas för att markera vem man var kompis med och inte, men gav även upphov till konflikter när elever hade olika åsikt om det ”perfekta resultatet” eller när de var rädda att inte få rättvisa mängder. På grund av sötsakernas koppling till sjukdom och viktuppgång kunde de också användas för att peka ut och nedvärdera dem som åt för mycket eller vid fel tillfälle.

Sammanfattningsvis förekom två huvudgrupper av diskurser: normalitet och ansvar. Å ena sidan sågs smak, kultur och sociala ritualer som viktigt när man talade om och valde matvaror, men å andra sidan krävde ämnet att man såg på mat ur ett mer vetenskapligt hälsoperspektiv. Synen på normalitet gjorde det svårt att välja fysiskt hälsosam mat eftersom social identitet, den motsägelsefulla synen på hälsa och alltför strikta ideal stod i vägen. Å andra sidan fanns det personer som inte hade tillgång till normalitet, såsom vegetarianer och även lärare, som tvingades balansera statligt uppställda mål inom ämnet mot en lokalkultur med delvis andra värderingar.

För att motverka dessa problem kan lärare 1) fokusera på sensorisk träning, experimentell matlagning och måltider som bygger på redan populära rätter, 2) utmana synen på normalitet genom sitt sätt att prata om och hantera olika sorters mat, 3) jobba för att göra matlagningen och måltiderna mer socialt inkluderande, 4) utforska den psykosociala dimensionen av hälsa på samma nivå som den fysiska för att elever ska kunna resonera kring sina matval utifrån smak, kultur och sociala relationer, och 5) undvika fällan att betygsätta elevers smak och kulturella bakgrund. Denna typ av undervisning skulle kunna ge elever fler verktyg för att kunna göra självständiga hälsoval, men det förutsätter att läraren får tillräckligt med resurser i form av lektionstid, förvaringsutrymme och en budget som möjliggör ett brett sortiment av livsmedel.

1. Introduction

It is a truth universally acknowledged that food is an important topic of conversation, second only to the weather. Every day, all over the world, people discuss recipes and restaurants, prices and cooking methods, what to eat for dinner, likes and dislikes, healthy and unhealthy food, what their children should learn to eat, and what they should avoid. They talk about other people's food habits – perhaps with admiration, or perhaps with disgust. And through all this talk, they create a worldview together – an image of how 'people like us' are supposed to eat, and how 'others' eat. Who gets the first portion? The last one? The leftovers? What is 'real' food, and when do we eat it? What do we cook during celebrations, when the ordinary rules can be broken?

Food is a cultural phenomenon that permeates everyday life and language. Many of our metaphors are based on food, such as 'the apple of my eye' and 'he's so sweet'. At long last, it has even infiltrated academia. From being considered too banal for something as lofty as research, it has become a staple in sociology, psychology, and other disciplines. Nowadays, it is recognized as a prime site for socialization into a culture (Lupton, 1996), and scholars use it to explain the structures that govern, among other things, family and friendship relations, societal power distribution, and health behaviours (Connors, Bisogni, Sobal, & Devine, 2001; Douglas, 1972; Fletcher, Bonell, & Sorhaindo, 2011; Potts & Parry, 2010). It is all connected, and it can all be studied through the lens of food.

So how do we, as researchers, 'get at' this lens? One way is language. The spoken and written word is our ticket to understanding the meanings people attach to food. Not what actually goes on inside their minds, but the *social constructions* of food, which are the shared understandings that shape our personal beliefs and which we reproduce or transform every time we speak or act. This is not to say that there is a simple, linear cause and effect, where if someone says a food is disgusting, others avoid it. Nor is it at all certain that the person who dismisses a food as disgusting really thinks so, or avoids it themselves. Rather there is a multitude of opinions, 'facts' and emotional relations that are more or less salient every time a person chooses what to eat – a web of ideas about food and health, woven by millions of people across generations and geographical boundaries, that creates a reality where the individual must navigate according to their specific needs and goals. For example, if vegetarian food is seen as effeminate in a certain place and time, the young feminist man might choose to adopt a vegetarian diet to reflect his political views (Browarnik, 2012); he might also choose to eat meat, perhaps because his taste for it is too ingrained, or because he wants to confound

societal expectations. In either case, even though the individual has some freedom of choice (or at least the illusion of it), they make it in relation to social norms.

As a trained and registered dietitian and teacher of Home and Consumer Studies (HCS), my interest in food and health as a research area is based on the contradictions I've encountered through my work. In the medical paradigm of dietetics, food is largely viewed as a container for nutrients, while the syllabus in HCS also emphasizes culture and commensality (National Agency for Education, 2011a). My meetings with patients and students have shown that these aspects of food and health are not always compatible. Simply put, even if you know what you 'should' eat to maintain a healthy body, other factors can make that choice difficult (Gough & Conner, 2006; Hammarström, Wiklund, Lindahl, Larsson, & Ahlgren, 2014; Kearney & McElhone, 1999; O'Neill, Rebane, & Lester, 2004). This may be even more difficult for young people, who are at a stage in life where they search for belonging and identity. Many studies have explored how young people reason around food and health (Shepherd et al., 2006; Stead, McDermott, MacKintosh, & Adamson, 2011; Stevenson, Doherty, Barnett, Muldoon, & Trew, 2007), but fewer focus on authentic social food situations. Since I was interested in how students talked about and behaved in relation to food, the Swedish HCS classroom was a good location for my studies. During an HCS lesson, students and teachers discuss food while actually cooking and eating, and the syllabus requires them to connect these discussions to physical and psychosocial health (National Agency for Education, 2011a, 2011b).

The aim of this dissertation, therefore, was to explore how students and teachers of HCS use big 'D' Discourses (see chapter 2, Background and theoretical framework) to talk about and handle food during the planning, cooking, eating, and evaluation of meals or snacks in HCS. I concentrated on four types of food: vegetables, meat, vegetarian food, and sweet foods. After analysing naturally occurring talk for Discourses, I related my findings to a model of critical food literacy based on Janks (2010) in order to explore possible alternative Discourses. Since the context of HCS may not be widely known, and the research area involves several complex concepts such as *learning*, *food*, *health*, *Discourse*, and *literacy*, I will devote the next chapter to discussing and defining these concepts in relation to my studies.

2. Background and theoretical framework

The relationship between eating habits and well-being is a prominent feature of HCS, although not the only one (National Agency for Education, 2011a). Food and meals make up a rough third of the central contents, and health is one of three perspectives that pervade the subject, the other two being private economy and sustainable development. On the surface, the goal may seem fairly straightforward: students are expected to learn about health consequences to food choice and eating behaviour. However, none of these terms – *learning*, *food*, and *health* – have a fixed meaning. In this chapter, therefore, I will provide a research overview that I deem relevant for understanding the area of learning about food and health in HCS. I will also explain the three theories that underpin the whole dissertation. To set the scene, I will begin by describing HCS as a school subject.

But first a few clarifications. You will notice that to some extent, I avoid the traditional passive voice of many scientific texts. This is intentionally done. My chosen theory and method of analysis are based on an understanding that language communicates in itself and is not only a container for information. Therefore I strive to let my personal voice shine through in my own Discourse to emphasize the subjectivity of my interpretations. (As a side note, I view all research as subjective, since all research is done by human beings. In the constructionist tradition, however, the idea that the researcher themself (sic) must influence interpretations is more explicit.)

I would also like to point out that while this dissertation is founded on a desire to understand the conditions for learning about food and health that are unique to HCS, I also believe that my results can be extrapolated to the world outside the classroom. In the home, in the media, among friends, in healthcare institutions, online, and at work, people learn about food and health, and although the contexts are different, some aspects are similar across the board. These aspects are what I call big 'D' Discourses, and I will explain them under *Discourse and critical literacy* below.

Last but not least, a note on gender. In this dissertation, I will talk about girls/women and boys/men as if gender and sex were clear-cut binary phenomena. I do not believe they are. Instead I support the view that they are a spectrum, and traditional notions of 'femininity' and 'masculinity' are socially constructed categories that tend to erase the existence of transgender and intersex people, fluid genders, and queerness. By using such language in my dissertation, I run the risk of reproducing this oppression instead of

transforming it. However, within my chosen field the binary categories of femininity and masculinity are relevant. The norms that govern how 'girls' and 'boys' should eat are based on such oversimplifications. They form the social reality that my participants have to navigate. This means that when I discuss, say, 'feminine' diets, I mean the kind of food that is traditionally connected to women as a binary, biologically determined sex. Likewise, when I say 'girls' and 'boys', I mean people with biologically female and male bodies, since all my sources follow this practice.

An unfortunate side effect is that I will refer to participants in terms of their outward gender expression and attach expectations on them based on this categorization. I am aware of the possibility that some of them were transgender, and that misgendering them would be disrespectful. However, I did not gather information about gender identities while I conducted the studies, so that information is lost. Still, I argue that this oversight has no major impact on the analysis or the discussion, since gender norms can apply to transgender people too. For example, if there is a boy in the data who I mistook for a girl and who is not out, he may be subject to the same societal expectations as girls and expected to eat in a feminine way. The same applies to non-binary transgender people, who may be expected to adhere to the norms that govern the sex they were assigned at birth, depending on their gender expression. That said, future research will probably be more sensitive to the fluidity of gender and sex, and the approach in this dissertation may soon be regarded as outdated.

With these clarifications made, let us start with the school subject that supplies the context for my studies.

Home and Consumer Studies

The school subject which is currently known in Sweden as Home and Consumer Studies (HCS) dates back to the nineteenth century, and has had a few different names along the way. Internationally, it is known as Home economics, but the contents differ somewhat from country to country. To ground the reader in what the subject entails, here follows a sketch of its theoretical roots, a short history of HCS in Sweden, an exploration of how the knowledge area of food and health in the Swedish syllabus can be understood, and a look at the recent development of the term *food literacy*, which will inform the rest of this dissertation.

Roots and current conditions

Home economics generally has a core content of food, cooking and health. In some countries, the subject includes sewing and childcare (Darling & Turkki, 2009), while in others, there is a stronger focus on food technology and marketing (Stitt, 1996). It has ties to many different disciplines, including medicine, sociology, psychology, and economics (Darling & Turkki, 2009). Although the subject is diverse, it is generally "concerned with enhancing the quality of life by focusing on the interrelationships among individuals, families and communities and the multifaceted environments in which they function" (Darling & Turkki, 2009, pp 377–378). It is based on the human ecology theory (Bubolz & Sontag, 2008), which views each act in the home as having consequences both locally and globally. The theory focuses on "interaction and interdependence of humans (as individuals, groups and societies) with the environment" (Ibid, p 421), thus giving it a social focus. A central concept is that of adaptation: in order to improve quality of life, strengthen chances of survival, and conserve one's environment, human beings have to adapt to that environment, but also adapt the environment to suit them.

The Swedish equivalent of Home economics was introduced as a school subject for girls towards the end of the nineteenth century (Hjälmeskog, 2006). Just like in other countries, the Swedish government hoped to counteract the poverty and squalor that industrialization had wrought by educating young working class women in how to properly care for a home and family. They also wished to disseminate new findings from the nutrition sciences. During the 1950's, the government gradually introduced a new education system with nine years of compulsory schooling, and in 1962 Home economics (*Hemkunskap*, literally 'home knowledge') became mandatory for all students, regardless of gender (Hjälmeskog, 2000; Skolöverstyrelsen, 1963). Since then four national curricula have replaced the original one (National Agency for Education, 1994, 2011a; Skolöverstyrelsen, 1969, 1980), and an extra, revised syllabus for all school subjects was implemented in 2000 (National Agency for Education, 2000). At this time, the name was changed to Home and Consumer Studies (*Hem- och konsumentkunskap*) in order to highlight the focus on private economy (Hjälmeskog, 2006). In 2010, lesson duration varied between 60 and 120 minutes, 72 % of teachers were certified, and HCS was mostly taught in grades 5, 8, and 9 (Lindblom, Arreman, & Hörnell, 2013). This may have changed since then to reflect the new grading system, which was introduced in 2011 to apply not only to grades 8 and 9, but to grades 6 and 7 as well (National Agency for Education, 2011a).

While this dissertation focuses on food and health, it should be emphasized that students are also expected to achieve complex goals within areas such as consumer rights, methods for cleaning, private economy, and sustainable development (National Agency for Education, 2000, 2011a). To accomplish all these objectives, HCS is currently allotted 118 hours, distributed over nine years of compulsory schooling (National Agency for Education, 2016). This equals three weeks of full time education and makes HCS the smallest subject in Sweden. To compare, the second smallest subject – music – is allotted 230 hours. For a discussion of how time and other frame factors impact learning, see Lindblom (2016). For our purposes, suffice it to say that there are limits to what is possible to achieve in HCS, and this should be seen as a sobering background to the lofty ideals of the researcher.

It is also pertinent to mention the peculiar nature of food as an area for learning. A study from 2003 (National Agency for Education, 2004) shows that HCS is popular among students, and one explanation for this is that the fuzzy boundaries between cooking as a school subject and as a potentially pleasurable activity in the home makes learning and leisure blend. However, this blending can also create dissonance and confusion. For example, while teachers see food in HCS as having a pedagogical purpose, the students can find it to be 'fake' compared to the food they consume in the home, because important parts of the cooking process are missing (Höijer, 2013). According to a Danish study (Benn, as cited in Höijer, 2013), students equate the subject with cooking, and find the more theoretical parts boring. By functioning as a pedagogical tool in a school subject, food thus takes on traits not normally associated with it, and can lose something in the eyes of the students.

The knowledge content of food and health in HCS

In the Swedish national curriculum, health is included in several subjects, including Physical education and Biology. However, HCS is the most concretely food-oriented subject. Cooking methods, food hygiene, and commensality all form part of the central contents of the current syllabus (National Agency for Education, 2011a). But the scope of the area can also be seen historically: during the time that Home economics/HCS has been a mandatory subject, food and health has gone through a series of reimaginings. From a rational, normative approach that emphasized choosing nutritionally correct foods for the individual, the focus has gradually widened to include a social and even global view of health (National Agency for Education, 1994, 2000, 2011a; Höijer, 2013; Skolöverstyrelsen, 1969, 1980; Skolöverstyrelsen, 1963). This change is partly reflected in HCS textbooks through the decades, but what can be viewed as the normative tone of the earlier syllabi still remains

in one of the most widely used textbooks today (Eriksson & Hjälmeskog, manuscript; Sjöholm, Hjalmarsson, Arvidsson, Hedelin, & Olofsson, 2012).

The two most recent syllabi, which are both relevant to this dissertation, include the relationship between food and culture, commensality, and health (National Agency for Education, 2000, 2011a, 2011b). They focus on cooking methods and have a both nutritional and psychosocial understanding of the role of food for individual and collective well-being. The syllabus from 2000 required that students in grade 9 be able to

> *plan, cook, arrange and evaluate meals with respect to private economy, health, the environment and aesthetic values.*
> *(National Agency for Education, 2000, pp 20–21)*

In the current syllabus, basic requirements for a passing grade within the area of food, meals, and health in grade 9 are as follows:

> *Pupils can plan and prepare meals and carry out other tasks which occur in the home, and do this with some adaptation to the requirements of the activity. In their work, pupils can use methods, food and equipment in a safe and basically functional way. Pupils choose approaches and give simple reasons for their choice with reference to aspects covering health, finance and the environment. Pupils can also make simple assessments of work processes and results. In addition, pupils can apply simple and to some extent informed reasoning about how varied and balanced meals can be composed and adapted to individual needs.*
> *(National Agency for Education, 2011a, p 46)*

The syllabus emphasizes the ability to reason around the consequences of different choices in relation to health, and to compose varied and balanced meals (National Agency for Education, 2011a). It does not specify what the phrase 'varied and balanced meals' entails, but it does encourage the use of pedagogical tools to talk about food. One such tool is the 'plate model', which shows an ideal plate with 20 % of the area taken up by a protein source such as fish or poultry, and 40 % devoted to vegetables and starches respectively (Camelon et al., 1998; Swedish National Food Agency, 2013). Other tools include the food circle and the food pyramid, which both have a similar message.

To make the connection between food and health accessible and applicable, the syllabi also promote the concept of knowledge-in-practice. The syllabus from 2011, for example, describes "a process where thinking, sensory experiences and action are all interlinked" (National Agency for Education,

2011, p 43). The connection between theory and practice has been a goal from the start (Skolöverstyrelsen, 1963), but how to achieve it is not always clear. Anecdotal evidence and three dissertations on HCS (Höijer, 2013; Lindblom, 2016; Petersson, 2007) indicate that a common structure for lessons that involve cooking is a theoretical introduction by the teacher, followed by a group assignment to be carried out by the students in kitchen units. During this assignment, the teacher goes around asking pedagogical questions, and the lesson is finished with a collective meal and a summary and/or evaluation of the process. Thus theoretical information is linked to the cooking assignment by discussing activities and foods throughout the lesson. This linking of theory and practice can be concretized with the help of the emerging term *food literacy*.

Food literacy

Literacy is an 'in' term whose use has transcended the original definition of written language skills to encompass other human semiotic systems as well. It denotes a way of 'reading' and 'writing' the world in a symbolic sense, and has been adapted to areas as diverse as the media (Austin & Pinkleton, 2016), finance (Gaudecker & Von, 2015), and recipe use (Brunosson, Brante, Sepp, & Mattsson Sydner, 2014). Since food can be understood as another such semiotic system, tied both to verbal communication and other social practices, the term food literacy has gained some traction within the international field of Home economics. It has been defined in various ways, including "a collection of inter-related knowledge, skills and behaviours required to plan, manage, select, prepare and eat foods to meet needs and determine food intake" (Vidgen & Gallegos, 2012, p vii). The point of food literacy is to link facts and understanding to concrete action.

One suggested model of food literacy (Pendergast & Dewhurst, 2012; Pendergast, Garvis, & Kanasa, 2011) corresponds to Nutbeam's (2000, 2008) model of health literacy. Nutbeam identified three progressive levels of health literacy: *basic/functional*, *communicative/interactive*, and *critical*. The first level, functional health literacy, involves the use of basic literacy skills to successfully navigate everyday situations. The second level, interactive health literacy, means using social and personal skills to apply the basic skills to new and more complex situations. The third level, critical health literacy, is the development of further cognitive skills for critical analysis, leading to self-efficacy and empowerment. Adapted to food, the three levels of literacy have been defined as *cognitive* (understanding food, getting information about it and analysing it), *practical/interactional* (processing and acting on information, having the skills to apply information), and *critical*

(empowerment and self-efficacy) (Pendergast & Dewhurst, 2012; Pendergast et al., 2011).

Just like literacy, the term empowerment is a buzzword within education, but it can appear quite abstract and difficult to understand. Pendergast et al. (2011, p 420) describe it as the ability to "make informed choices and to enact those choices". Another way of explaining empowerment, put forward by Cullbrand (2003), is that teachers use students' prior knowledge and cultural backgrounds as a starting point for activities. This is compatible with the current national curriculum, which focuses on developing students' democratic citizenship and on meeting the individual differences of every student (National Agency for Education, 2011a). Based on ideals of empowerment and student democracy, then, students should be allowed to partake in the planning of lesson content. For example, they may be encouraged to choose their own recipes and/or ingredients. However, this takes some control away from teachers and their pedagogical visions (Höijer et al., 2011; Höijer, Hjälmeskog, & Fjellström, 2014). Cullbrand (2003) herself acknowledges that teachers may experience a loss of power over lesson content, and this can become quite the dilemma when coupled with the advanced goals for learning in the syllabus.

Of course, this dilemma is not limited to HCS. As Côté (2006) argues, western culture promotes freedom of choice, but also places responsibility for those choices on the individual. However, the ability to make wise choices is not innate but must be learnt, and the very process of teaching someone to make wise choices paradoxically takes power away from the learner. Consonant with Côté's freedom-and-responsibility of choice, the current national curriculum and HCS syllabus emphasize both the student's power over their own actions, and the requirement that they reflect on the consequences of their choices (National Agency for Education, 2011a). If, with Cullbrand (2003) and Pendergast et al. (2011, 2012), we subscribe to the ideal of empowerment in HCS, we therefore prompt students to exercise a freedom of choice which is not really free from constraints, since they are to be evaluated on the basis of those choices and any reasoning around them (National Agency for Education, 2011a). Students may be free to choose 'unhealthy' or 'improper' foods in HCS, but unless they argue for and against it based on health, private economy, or environmental concerns, their grades may suffer. Add to this that cooking and eating in HCS is typically done in groups (Lindblom, 2016; Petersson, 2007), which means that students' taste preferences and levels of educational ambition may not be compatible.

All this renders HCS a complex social context for learning about food and health. The rest of this chapter will therefore be devoted to addressing each

level of food literacy in detail and relating them to an appropriate theory. The *cognitive level* will be explained with the help of a model of learning created by Illeris (2007), the *practical level* with a model of food choice based on Belasco (2008), and the *critical level* with an adapted model of critical (language) literacy created by Janks (2010). It should be noted that these levels are an oversimplification, since real life is not so easily compartmentalized. However, it will hopefully aid us in bringing order into the complexities of food literacy and, further on, provide a basis for discussing the results of my studies.

Learning about food and health in HCS

Learning is a multifaceted phenomenon that can be defined in many ways. It is often described as involving a change – in how a person perceives phenomena (Marton, 1997), in capacity (Illeris, 2009), or of identity (Wenger, 1998). These terms – perception, capacity, and identity – are loosely reflective of the three levels of food literacy, which shows how my choice to discuss learning merely at the cognitive level of food literacy is an example of the oversimplification mentioned above. However, I want to focus on how things like social environment and earlier experiences can impact the cognitive part of learning, so I hope my division still makes sense.

With Danish professor Knud Illeris (2003b), I view learning as something that happens both within an individual and in interaction with their physical and social environment (Figure 1). In the following, I will briefly summarize these dimensions and give examples that illustrate how they can be understood in relation to HCS.

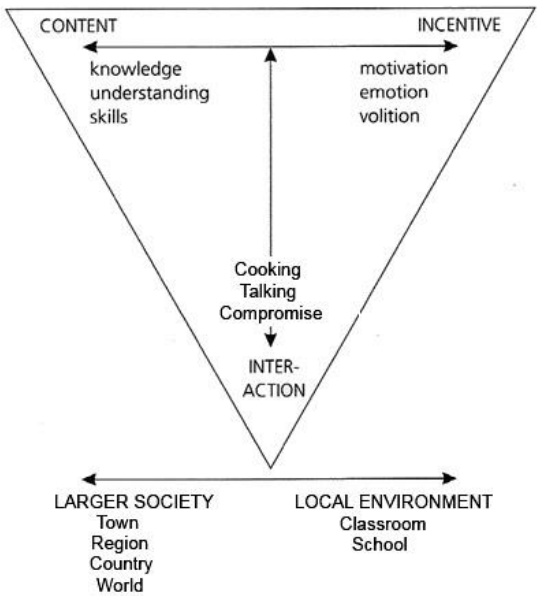

Figure 1. An adapted version of Illeris's (2007) model of learning (reprinted with the author's permission), with an internal dimension of content and incentive, and an external dimension of interaction with the local environment and larger society.

The internal process: content and incentive

Based on a broad range of research on learning, Illeris (2007) divides the internal learning process into *content*, which has to do with what is learnt, and *incentive,* the forces that combine to make learning happen (Figure 1). Content has traditionally been defined as knowledge, skills, and attitudes, but Illeris promotes an expanded definition which includes understanding, insight, meaning, coherence, and overview. He also emphasizes the need for content to include reflection – meaning afterthought and revision – and reflexiveness, which is knowledge about oneself. In HCS, content translates into, for example, the ability to "apply simple and to some extent informed reasoning about how varied and balanced meals can be composed and adapted to individual needs" (National Agency for Education, 2011a, p 46). In this context, reflexiveness can be taken to mean that learning about food and health must have some connection to the student's image of themselves: everything the student learns must feel relevant to their 'me project' (Illeris, 2003a). This feeling of relevance is connected to the other dimension of the internal process of learning, namely incentive. Incentive is defined as the drive to learn about the content – in this case, food and health – and involves people's emotional patterns and motivations. These patterns are normally

subconscious, but can become salient if the individual is opposed to learning something.

According to Illeris (2007), all learning brings with it some degree of stress. When a new piece of information or way of viewing the world is introduced to an individual, they have the choice to reject or adopt it. Using two concepts first created by Piaget (as cited in Illeris, 2007), he explains that the individual must either modify the information to suit their existing structures of meaning – *assimilation* – or change their structures to accommodate the new information – *accommodation*. These processes are reminiscent of the human ecology theory's concept of adaptation: either the individual adapts to the environment, or they adapt the environment to suit them (Bubolz & Sontag, 2008). Illeris (2007) argues that in most learning situations, both assimilative and accommodative learning are activated, but there is an emphasis on one of them. For assimilative learning to happen, a student's pre-existing structures of understanding, competence, and practice (mental schemata) have to harmonize with the new information. Every person's pre-existing schemata are unique, and when the information is assimilated, the resulting knowledge is also unique to the individual.

If the opposite is true, and a student has mental schemata that contradict the new information, they have to accommodate their schemata to make room for the new in order to learn. This requires more energy than assimilation, and means that learning in HCS is more demanding when a student's preconceived notions about food and health do not harmonize with the offered content. If the individual does not want to expend the energy inherent in accommodative learning, they can reject the new information or distort it to suit their schemata. Indeed, in our day and age with its constant flow of information, people are practically forced to resist new concepts, and even to employ defence mechanisms to protect themselves from too much change (Illeris, 2009). Using a few basic beliefs to reject information that challenges our schemata, we thus defend our foreknowledge and, in the long run, our identity. Since food habits are very much a part of a person's identity (see *Food choice* below), we can expect this to happen in HCS as well.

In connection with this, I just want to mention that Illeris (2007) also talks about two additional types of learning. The first is *cumulative*, which is unconnected to any earlier knowledge and mostly happens in infancy. The groundwork of food culture, taste preferences, and eating behaviour would fit this description. The other type is *transformative* learning, which is tied to identity work and life crises, and mostly applies to adults. An example of this would be life-changing events such as getting diagnosed with diabetes or a

loved one dying from coronary disease, which can make a person re-evaluate their earlier beliefs and recreate themselves as eaters.

The external process: social and physical interaction

As mentioned above, students' cultural backgrounds are an essential component of HCS (Cullbrand, 2003). Since learning always happens in a context, these backgrounds also form part of the social environment for learning in the subject. Vygotsky (1980) famously promoted the importance of the environment to learning, and in Illeris's (2007) model, the process of interaction with the environment is divided into the immediate context and the larger world outside (Figure 1). For HCS, the immediate context would be the teacher, fellow students, the textbook, any other pedagogic tools and sources, and the classroom, including for example kitchen utensils and foodstuffs. According to earlier research in HCS, interaction with these can encourage or dissuade from learning depending on gender (Petersson, 2007), offer the possibility of viewing one's own identity as lacking (Eriksson & Hjälmeskog, manuscript), or confirm the subjugation of children to adults (Höijer, 2013). The larger world outside that influences learning in HCS is local, regional, and national culture, and indeed the entire world. Every region, every town and village has their particular customs and traditions, and they influence both students and teachers. They can manifest explicitly through discussions of news articles or advertisements, or they can be implicit. I will discuss how such worldviews can manifest 'between the lines' under *Discourse* below.

A possible risk inherent in the complex social context of learning is misinformation. For example, a lesson may be meant to promote learning about the different functions and characteristics of carbohydrates – the physical effects of carbohydrates in the body, the carbohydrate content of different foods, its sensory qualities, and so on. However, depending on the social context, the student may instead learn that you should not eat carbohydrates at all because they make you gain weight, or that you can replace all food with sweets and still survive as long as they give the right amount of calories. This phenomenon is strikingly illustrated by a study that shows how a student misinterpreted a fellow student's explanation of the physics term refraction to the point where it hindered the student from learning correctly for several weeks (Alton-Lee, Nuthall & Patrick, 1993).

But even more importantly, the social process of learning means that the individual *takes part* in something instead of just taking over something external. For example, learning about health means becoming a member of a community, living according to its norms, and communicating in the way of

the community (Quennerstedt, Burrows, & Maivorsdotter, 2010). However, as we will see under *Food choice* below, the community that the student is invited to join may not be their chosen one. Individuals tend to follow the norms of the group they identify with (Louis, Davies, Smith, & Terry, 2007), which means that in any given situation, each student may emulate different constellations of fellow students, the world of the teacher or the textbook, or even absent groups such as family or celebrities. For example, if the in-group norms of a class reject health behaviour, some students may distance themselves from health messages in HCS – indeed their very ability to recall information on food and health may be compromised (Oyserman et al., 2007).

Why social identity and belonging are so important will be explained as we now move from the cognitive level of food literacy to the practical level of food choice.

Food choice: a compromise between identity, responsibility and convenience

A culinary Venn diagram of competing influences

According to Belasco's (2008) culinary triangle of contradictions (Figure 2), food choice is influenced by many different factors which can be summarized by the terms *identity*, *responsibility*, and *convenience*. In the model, identity entails personal and cultural factors such as taste, family traditions, and ethnic background. Responsibility is about consequences to food choice, such as health effects and environmental impact. The convenience aspect has to do with ease of access and/or application based on issues like price, availability, and time. While all three aspects are very complex and make up whole research areas of their own, the model is useful for holistically discussing food choice in and outside of HCS. It shows that what is considered good for the body does not necessarily coincide with the individual's resources and skills, or with personal preferences and group norms.

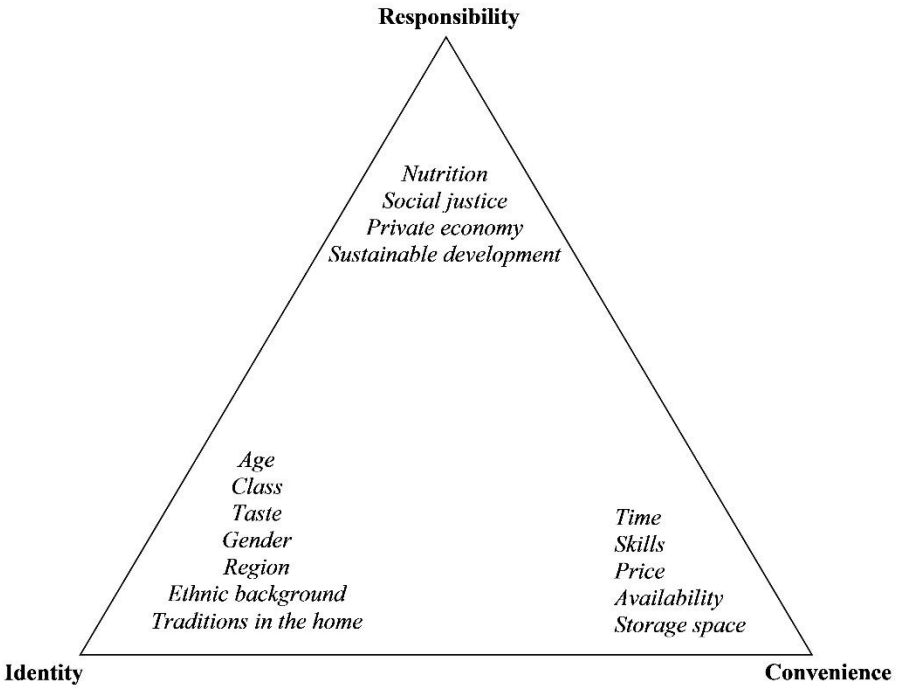

Figure 2. Belasco's (2008) culinary triangle of contradictions (reprinted with permission from the author), with examples pertinent to the Swedish school subject Home and Consumer Studies.

However, I think the matter is less clear-cut and more overlapping than the triangle shows. For example, being responsible may be a part of someone's identity, since cultural norms can influence an individual's tendency to follow rules or to break them. Likewise, aspects of convenience can also be cultural, such that cooking skills depend on how much the individual has learnt in the home, and can be influenced by things like gender and ethnicity. To suit my purposes, therefore, I have adapted the triangle to form a culinary Venn diagram of competing influences instead (Figure 3). Here the three aspects of the triangle are seen as overlapping concepts that do not necessarily contradict each other, but may harmonize for some people and in certain situations.

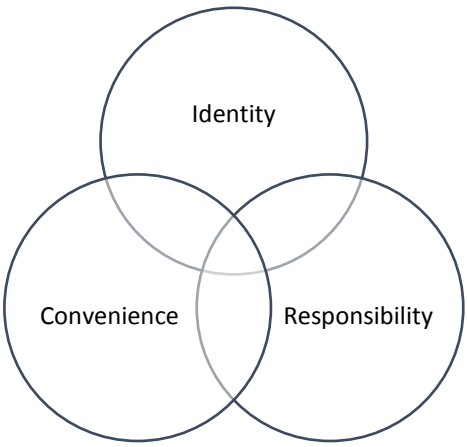

Figure 3. A culinary Venn diagram of competing influences (based on Belasco, 2008).

I will now describe each of the three aspects in detail. For reasons of scope, identity will only comprise the social norms, cultures, emotions, and relationships that I deem most relevant for my participants. This means that I will concentrate on how region, class, gender, and age impact consumption of vegetables, meat, vegetarian food, and sweet foods. The next aspect, responsibility, will be limited to health, even though food choice also has consequences for things like social justice, animal welfare, the economy, climate change, and land use, which can all be discussed in HCS. Finally, convenience will focus on the context of HCS.

Identity: social norms, cultures, emotions, and relationships

The *identity* category sees food as a social, cultural, and emotional phenomenon. People eat what they like – but even taste preferences are at least partly cultural (Shepherd & Raats, 2006). Through food habits, people enact social identities and show group belonging, and what is acceptable and normal to eat is learned early in life (Fischler, 1988). Food is an expression of social cohesion, culture, friendship, and family relations (de Garine, 2001; Lupton, 1996), and people typically adapt their eating behaviour to fit in with a certain group in a specific situation (Fischler, 1988). Individual foods have individual symbolic meanings, such that meat is connected to masculinity and power, and vegetables to femininity and weakness (Lupton, 1996; Nath, 2011). Food choice partly depends on immediate social context and partly on background, which means that food habits may change both from situation to situation and over the course of a lifetime (Bisogni, Connors, Devine, & Sobal, 2002; Sobal & Nelson, 2003). Of course, as a social constructionist, I believe that people can either reproduce or challenge and transform any meanings

embedded in different foods, but judging from the wealth of sociological research done over the years, many of these constructions are very resistant to change.

Fischler (1988) explains the importance of cultural rules about food by arguing that because humans are omnivores, any meal is potentially traumatic due to the ever-present threat of poisoning. Each time we ingest something, we incorporate a portion of the outside world, and cultural norms provide much needed support in this constant decision-making process. By learning from our in-group what is edible, we do not need to mull over it each time we eat. The norms that govern food habits differ substantially across the world and are strongly related to cultural identity. Thus eating becomes a ritual where the individual acts out certain fixed behaviours in order to uphold cultural traditions and feel safe in their eating. Unfortunately, many norms and rules are incompatible, which again gives rise to anxiety. For example, there may be pressure to eat fast food and still be thin (Gondoli, Corning, Blodgett Salafia, Bucchianeri, & Fitzsimmons, 2011; Stead et al., 2011). Similarly, national nutritional recommendations do not take account of people's real life circumstances, so that well-meaning advice can elicit guilt rather than encourage change if social norms work against the adoption of health behaviours.

Since HCS students typically collaborate in kitchen units and eat together, the norms that surround food will become salient during lessons. In addition to the cultures that students bring with them from home, food behaviours tend to be similar among school friends (Fletcher et al., 2011), which creates a separate culture among peers (more on this under *Age* below). There is even evidence for a specific HCS cuisine which centres on minced meat, chicken, and Quorn[1] (Höijer, 2013) and echoes the Swedish proper meal concept (Ekström, 1990) with meat at the centre and other foods added on in a falling order of importance.

I will now take a closer look at the four aspects of food-related identity that are especially relevant for the participants in my studies, namely region, class, gender, and age. As with all the terms used in this dissertation, these are somewhat arbitrary and misleading, since real life is not made up of such careful delineations, but they do form a useful structure for discussing norms. My chosen categories obscure other factors like ethnicity and religion, not because they are not important, but because the sample in my studies was ethnically homogenous and relatively secularized. It should also be noted that I view identity as having both an internal, largely unchanging core and a more

[1] A meat substitute made from fermented mycoprotein.

malleable, socially contingent outer manifestation (for a discussion of different ways to view identity, see Côté, 2006). This loosely mirrors the internal and external dimensions of learning sketched above.

I will begin my overview with region and class since they form the local culture of the schools, then continue with gender, and finally zoom in on the specific age group of HCS students.

Region and class

According to de Garine (2001), ethnic and social groups literally categorize themselves and others by what they do and do not eat. Out-groups are often seen as aberrant eaters compared to the in-group. There is a tendency towards both positive and negative self-evaluation, where negative views of the in-group are based on comparison with the culturally dominant group. For example, if working class people self-define as 'hearty' eaters rather than 'healthy' ones, this may be a source of shame – but it may also be a source of pride and defiance. In the northern Swedish context of my studies, with its history of political and economic marginalization and resistance (Eriksson, 2010; Hansen, 1998), local food habits may be used to enact an independent identity vis-à-vis the dominant culture. Such tendencies were found in a Welsh study where healthy diets were seen as something 'other people' ate, and as long as such views prevailed, change was more or less impossible (O'Neill et al., 2004). Other researchers have argued that dominant social groups (white middle class in the US) have more power to choose which behavioural markers should be in-group defining, while minorities are more or less forced to adopt contrasting habits (Oyserman, Smith, & Elmore, 2014). On the other hand, global influences can counteract local norms even in very rural areas, especially for young people (Waara, 1996).

So what are the local norms in the studied area? In traditional Swedish culture, meat is an important part of the diet. Traditionally, it has been invested with magical properties, such as the animal's strength being transferred to the person killing and/or eating it, and it is typically seen as the centre of a 'proper meal' (Charles & Kerr, 1986; Ekström, 1990; Holm, 2003; Johansson & Ossiansson, 2012; Mennell, Murcott, van Otterloo, & Association, 1992). In the north of Sweden with its strong hunting culture, Sami reindeer herding, and livestock farming, meat consumption is high and may therefore be valued highly (Ljung, Riley, Heberlein, & Ericsson, 2012). Meat-eating can convey a sense of self-reliance, and the dictate to eat less meat and more vegetarian options (which could mean buying from someone else, maybe even non-local farmers) may be seen as an attempt at social control. Indeed, throughout history, the ruling classes have often restricted the

consumption of meat in the lower classes (Ervynck, Van Neer, Hüster-Plogmann, & Schibler, 2003). Considering the western penchant for freedom of choice (Côté, 2006), it is no wonder that state-sanctioned attempts to influence people's consumption of meat are met with resistance.

Thus meat is symbolically powerful on many levels and has a history of being used as a means of controlling the populace. Since meat is so important in the Swedish diet, avoiding it may even be seen as a rejection of community values and a defiance of one's culture (Counihan & Kaplan, 1998; Fiddes, 2004). Because of this, the question of whether or not to consume meat tends to polarize opinion (Cole and Morgan, 2011), and vegetarianism can be quite controversial. For example, all Swedish schools are required to serve a free of charge, nutritionally calculated lunch for all students, but some of them also offer a vegetarian alternative in addition to any meat-based dish. However, the emerging concept of 'meat-free days' can spark hostile reactions. For example, the Federation of Swedish Farmers famously protested during such a day by handing out free hamburgers outside a school in Nyköping (Sveriges Radio [*Swedish Radio*], 2014). This reaction illustrates the concept of 'othering', which is organized around a supposed consensus on what is acceptable and normal to eat in a particular culture or social group (de Garine, 2001). Paradoxically, one northern Swedish town has a history of Straight Edge veganism with 16% of fifteen-year-olds identifying as vegetarians during the late 1990's (Larsson, 2001). This is a much higher percentage than the national mean, which lies somewhere between 3% and 10% (Rothgerber, 2013; Djurens Rätt [*Animal Rights*] 2015). It is uncertain whether the high prevalence still remains, but there is a steady influx of university students into the town, and vegetarianism is most common among 15- to 24-year-olds (Djurens Rätt [*Animal Rights*], 2015).

Common reasons cited for becoming vegetarian are animal welfare, a distaste for meat, a taste for vegetarian food, and personal health (Larsson, 2001). An interest in one's physical health is also typical of the higher classes, and their 'dainty' food with a lot of vegetables is often contrasted with the heavier, more filling and meat-centric food of the working class (Darmon & Drewnowski, 2008; Germov & Williams, 2008; Lupton, 1996; Oyserman, Fryberg, & Yoder, 2007; Wills, Backett-Milburn, Roberts, & Lawton, 2011). In fact, working class diets are generally seen as unhealthy, even when differences from the higher classes are only on a 'distinction' level (Bourdieu, 1984) as opposed to a nutrient level (Germov & Williams, 2008). For instance, an expensive dark chocolate praline is typically constructed as more healthy and sophisticated than a supermarket milk chocolate bar (McCorkindale, 1992). That said, there is some evidence for the diets of working class people being less nutrient dense and more energy dense than that of the higher classes (Darmon &

Drewnowski, 2008). There is also a tendency for working class families with children to prioritize getting everyone fed rather than choosing food based on health, and for middle class mothers to be more restrictive with sweet foods than working class ones (Hupkens, Knibbe, Van Otterloo, & Drop, 1998; Wills et al., 2011). As we will see under *Responsibility* below, this can have consequences for rural and working class people's health.

Gender

An individual's class and birthplace can influence what they are expected (and expect) to eat, but food norms also have a lot to do with gender. Meat is not only tied to rurality, hunting, and regional independence, but also to masculinity, and vegetables and vegetarian food are often seen as feminine (Lupton, 1996; McPhail, Beagan, & Chapman, 2012; Newcombe, McCarthy, Cronin, & McCarthy, 2012; Roos, Prättälä, & Koski, 2001; Rothgerber, 2013). To take an extreme example, middle class girls from a southern Swedish city would be expected to eat more vegetables than boys from predominantly working class areas in rural northern Sweden. There is a tendency for women's food habits to be healthier than men's (Hearty, McCarthy, Kearney, & Gibney, 2007), and for dieting to be seen as feminine (Gough, 2007). Vegetarians are viewed as healthy and virtuous, but also as effeminate (Ruby & Heine, 2011; Fox & Ward, 2008). Because of this, Holm speculates that nutritional advice may be seen as trying to "feminize people's diet" (Holm, 2003, p 6), something that risks eliciting male resistance if local culture stresses traditional masculinity.

Another important aspect of gendered food norms is current beauty ideals that construct women's bodies as ideally thin and men's bodies as muscular. Therefore girls and women are not only expected to eat less *meat* than boys and men, but to eat less in general (Counihan, 1992; Woolhouse, Day, Rickett, & Milnes, 2011). If they do not, this reflects poorly on their character (Vartanian, Herman, & Polivy, 2007). Paradoxically, domestic cooking is a traditionally feminine area (Lupton, 1996), making the preparation of food more of a sacrifice and a service to others than something a woman does for herself. Perhaps because all these half-starving women need to compensate for the loss of nutrition with carbohydrates, sweet foods are typically seen as feminine – but also as childish (Lupton, 1996), which brings us to our final aspect of food choice, age.

Age

During the early years of a child's life, adults typically control food production, availability in the home, and allowing certain foods to be consumed but not

others (Counihan & Kaplan, 1998). Nowadays, however, children in Nordic countries are gaining more and more power over what is served for dinner, and even act as gatekeepers with regard to the family meal (Janhonen, Benn, Fjellström, Mäkelä, & Palojoki, 2013; Olsen & Ruiz, 2008). In adolescence, when children attain some degree of freedom, self-reliance, and independence, this can manifest in a change of commensality patterns along with the consumption of self-chosen, nutritionally unhealthy foods (Croll, Neumark-Sztainer, & Story, 2001; Lupton, 1996). During their years at high school, those with the financial means can use their money to buy sweets and alternative lunches outside of the school canteen. They are at a stage in life when food habits are subject to change and new eating patterns can settle (Devine & Connors, 1998; Kearney & McElhone, 1999; Kelder, Perry, Klepp, & Lytle, 1994). Parents are no longer the primary role models. Instead friends become more important, as do media personalities and other celebrities. If nutritionally healthy food is seen as uncool among peers, those who choose to eat it may be ridiculed (Stead et al., 2011). Consequently, young people often cite social norms as barriers to healthy eating (Neumark-Sztainer et al., 1999; Stevenson et al., 2007).

One important part of children's specific food culture is sweet foods (Ludvigsen & Scott, 2009). The sometimes carnivalesque nature of sweets – such as extreme sourness or saltiness, gaudy colours, and simulated non-food forms such as cars or people – distinguish them from adult foods and add to their attraction (Lupton, 1996). Adults commonly use sweet foods to reward, bribe and comfort children (Charles & Kerr, 1988; Lupton, 1996; Rylatt & Cartwright, 2016), and this lays the groundwork for their association with love and friendship (Lupton, 1996; McCorkindale, 1992; Wright, Nancarrow, & Kwok, 2001). Cakes and sweets make valued gifts, and Swedish *fika* (coffee or tea with a sandwich and/or something sweet) is a common way of building relationships among both young and old.

In contrast to sweet foods, vegetables and physically healthy food are viewed as adult (Ludvigsen & Scott, 2009), and family meals in the home are seen as healthier than meals shared with friends (Croll et al., 2001; Neumark-Sztainer, Story, Ackard, Moe, & Perry, 2000). Young people are typically constructed as unhealthy eaters (Evans, Evans, & Rich, 2003), and yet it is among the young that vegetarianism is on the rise. Since adolescence is a period of non-conformity, the reason for this may partly be the rejection of community values it symbolizes (Fiddes, 2004), but as we have seen, the choice to become a vegetarian can also be based on health (Larsson, 2001). In this case, the health category of the Venn diagram of competing influences can be seen as overlapping with the identity category, since vegetarianism is very much an identity statement. It is even possible that all health behaviours can

be seen as subjugated to the concept of identity, but for the sake of clarity, it is treated in a separate section, to which we now turn.

Responsibility: health

Health is a complex concept with many definitions. On a collective level, it can be pure statistics, meant to illustrate the economic burden of healthcare or the quality of a country's work force. It can also be highly individual, to the point where people who have a chronic illness can feel quite healthy (Wiitavaara, Bengs, & Brulin, 2016). The classic definition formulated by the WHO (2003) includes physical, mental and social aspects, to which spiritual well-being can also be added (Deagon & Pendergast, 2012; Germov & Williams, 2008). Since I will be using the term health in connection to food in HCS, I will limit myself to a discussion of the physical and psychosocial dimensions specified by the Swedish syllabus (National Agency for Education, 2011b).

Physical health outcomes have to do with many factors such as genes, housing, and access to healthcare, but they are also a consequence of food habits. To exemplify, vegetables can provide protection against physical illnesses like heart disease, cancer, and diabetes (Boeing, Bechthold, Bub, Ellinger, Haller, Kroke, Leschik-Bonnet, Müller, Oberritter & Schulze, 2012). A decreased consumption of red and processed meat could lower the risk for cancer and cardiovascular diseases (Bernstein & Willett, 2011; McAfee et al., 2010), and there is ample evidence for the health benefits of a vegetarian diet (Craig 2009; Sanders, 1999; Larsson et al., 2001). A decrease in the intake of simple carbohydrates might help to combat caries and diabetes (Basu, Yoffe, Hills, & Lustig, 2013; Moynihan & Kelly, 2014). Based on such research, the Swedish National Food Agency recommends that children eat 400 grams of fruit and vegetables per day, and that they limit their consumption of red and processed meats and simple carbohydrates (Swedish National Food Agency, 2014a, b). But despite the considerable efforts and money put into health education and health campaigns, lifestyle-related illnesses are on the rise (Perlhagen, Flodmark, & Hernell, 2007). There is an abundance of foods with high energy density but low nutrient content, accompanied by massive and sometimes misleading advertising during times of day when young people watch TV (Prell, 2010). Since these 'junk' foods are often relatively cheap, socioeconomically underprivileged people are more at risk of food-related disease than others: the poorest people in Sweden are sicker and die at younger ages than their richer counterparts (Danielzik, Czerwinski-Mast, Langnäse, Dilba, & Müller, 2004; Drewnowski & Specter, 2004; Kark & Rasmussen, 2005). Other at-risk groups include the working class, males, and people in rural areas and the north of Sweden (Lindroth, Lundqvist, Lilja, & Eliasson, 2014).

According to a 2003 national dietary intake study among Swedish four-, eight- and eleven-year-olds, only one in ten children ate the recommended 400 grams of fruit and vegetables per day (Enghardt Barbieri, Pearson and Becker, 2006). A later study sees a rise in vegetable consumption (Danielson, 2006), but boys still eat less vegetables than girls, especially at the bottom end of the socio-economic scale (Nilsen, Krokstad, Holmen, & Westin, 2010; The National Board of Health and Welfare, 2005), and intake decreases with age for all children (Danielson, 2006). When it comes to meat, the average Swede 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). On the other hand, the current number of vegetarians and vegans in Sweden is somewhere between 3% and 10% (Rothgerber, 2013), with the highest prevalence among 15- to 24-year-olds. As regards sweet foods, the 2003 survey (Enghardt Barbieri, Pearson, & Becker, 2006) found that simple carbohydrates made up 13–15% of children's energy intake, to be compared with the recommended limit of 10% (Nordisk Ministerråd, 2014).

Thus while some young people consciously choose food with a view to enhancing their physical health, many do not. This is illustrated by the 2003 national evaluation of HCS, where around 40% of students could make conscious health choices and act on these, while 20% could plan a healthy meal with the help of pedagogical tools like the plate model, but not apply it in practice. Around 15% did not care about health at all, but prioritized taste and speed of preparation (National Agency for Education, 2004). Consonant with this, interviews have revealed that high school students do not necessarily make a connection between nutritional needs and food choice, but rather compensate for perceived deficiencies with supplements (Prell, 2010). This failure to follow dietary recommendations is viewed by many as problematic, since individual behaviour can influence future health outcomes. Western norms revolve to a large extent around physical health (Lupton, 1995, 1996), and mind is privileged over body such that it is a moral duty to control one's appetites in the midst of abundance (Counihan & Kaplan, 1998). During the 20th century, this view has gained considerable ground. From regarding health as something fated, we now expect the individual to self-regulate their behaviour to attain good health (Bildtgård, 2002; Lupton, 1995). This requirement is communicated to the public via for example TV programmes, news articles, advertisements, and school. The message can sometimes seem to be that if we do not follow the advice of medical professionals, we are doomed to a life of disease and to premature death, and the blame cannot be laid anywhere but on ourselves. But as health promoters have long known, knowledge has no particular effect on public health (Bremberg, 2010). A pan-EU study (Kearney & McElhone, 1999) showed that few cited lack of

knowledge as a barrier to healthy eating. Instead they defined their own diets as good enough and saw no reason to change them. The respondents showed fairly good knowledge of nutritional matters, but two other studies cited in the same article (MAFF, 1994; Hulshof, Lowik, Kistemaker, Hermus, ten Hoor & Ockhuizen, 1993) claimed that only 1% of people in the UK and the Netherlands actually followed official dietary recommendations.

But 'following advice' is not as simple as it seems. In order to decode and analyse prolific and often contradictory media messages about food and health, the individual not only needs to understand the actual message, but also has to be able to evaluate the source and its trustworthiness (Nielsen-Bohlman, 2004). After that, they need to apply the advice in practice (the practical level of food literacy), a complex task that requires handling an emotional, social, and symbolic phenomenon like food in a rational manner. Another problem is that many people overestimate their own immunity to health risks (Sjöberg, 2003). Also, risk-taking in itself can be pleasurable (Lupton & Tulloch, 2002), thereby contributing to a form of health in its own right. Whitehead (2005) has even raised the question whether health workers should really attempt to influence individuals who deliberately indulge in long-term risky behaviours and enjoy it. On the other hand, prioritizing pleasure over health can give rise to guilt because it symbolizes loss of control and immorality, and this in turn reduces well-being (Lupton, 1996; Macht & Dettmer, 2006). Then again, risk management is not the only way to view health behaviour. Antonovsky et al. (Antonovsky, Cederblad, Elfstadius, & Lundh, 1991) promote a view of health and ill-health as a continuum rather than a dichotomy. In other words, you are not either sick or well, but can rate your well-being on a scale between completely healthy to completely sick. Holistic health can also focus on a feeling of connectedness and social relations (Svedbom, 2006). While this is highly relevant for the individual, there are those who claim that a too-wide definition of health may lead to a confusion with 'happiness', and that this will make health difficult to attain at a societal level (Saracci, 1997).

On a personal level, though, pleasure is a big part of both well-being and food choice (Jallinoja, Pajari, & Absetz, 2010). Not only that: the pursuit of pleasure can even be seen as a moral duty in western society, just like the pursuit of physical health is (Counihan & Kaplan, 1998; Jallinoja, Pajari, & Absetz, 2010). These conflicting trends have ancient roots. While the western world highly values the ideal of rational thought and self-discipline inherited from ancient Greece, we are also increasingly influenced by the Romantic ideal of happiness, self-fulfilment, and the celebration of the individual (Lupton, 1996). Illeris (2003a) argues that everything young people of today encounter must be judged against an internal ruler and found relevant or not to their 'me

project'. The world expects them to carve out their own fortunes, to take charge of their lives, and to attain success and happiness on their own terms and by their own efforts. This means that there is a lot of pressure on young people to perform in their own lives, both on a rational and an emotional level. But even making decisions based on their own wishes can be difficult (Waara, 2003), and many young people do not express concern about their physical health apart from a fear of gaining weight (Croll et al., 2001; Stevenson et al., 2007; van Exel, de Graaf, & Brouwer, 2006). This is reflected in health statistics: physically, young people in Sweden enjoy relatively good health, but while Swedish eleven-year-olds top the lists of European well-being, this percentage drops significantly with the onset of puberty. Psychological problems account for a large proportion of this increasing ill-health (Bremberg, 2006; Danielson, 2006). Connected to food, it may reflect the conflicting ideals of thinness and pleasure, discipline and consumerism (Gondoli et al., 2011; Stead et al., 2011).

Since health is such a complex issue, Buchanan (2006) argues for a health education that gives more autonomy to the individual in the form of freedom to choose how they want to live. He bases this view on the fact that people who have the best health also have the most power over their own lives. But those who enjoy the best health are also those whose in-group norms compel them to eat healthy food. For example, studies have shown that white middle-aged middle class women are relatively receptive to health messages, while young, male, overweight smokers from the working class show most resistance (Hearty et al., 2007). Indeed, the fact that an individual 'knows' that they will not live as long as their richer counterparts can lead to a fatalistic resignation that in itself influences behaviour (Köhler, 2007). Consonant with this, young people who expect a bright future in terms of socio-economic status are more likely to adopt health promoting behaviours than those less fortunate (McDade et al., 2011). But more than that, belonging to a social group creates a social identity that influences health behaviour (Oyserman et al., 2007), and as we have seen, young people who consume the 'wrong' kind of foods risk social stigma (Kroone & Alant, 2012; Stead et al., 2011). Healthy food does not have positive connotations for everyone, and 'healthy people' are not necessarily viewed in a favourable light (O'Neill et al., 2004). Since health behaviour is subject to these psychosocial constraints, well-being is perforce a compromise. A certain amount of temporary suffering may sometimes be crucial to the development of sustainable, long-term physical health, but for some people, that suffering may not be worth it.

The psychosocial dimension of health will therefore be understood as a combination of sensory experiences, social food norms, and a feeling of connectedness and empowerment. However, barriers to physically healthy

food choices in HCS are not only psychosocial. There are also more concrete, practical obstacles to do with food availability, cooking skills, time, and price – in short, convenience.

Convenience: practical conditions

Like any school subject, HCS is constrained by practical conditions that limit what is possible to achieve. For example, Lindblom et al. (2013) found that only 88% of HCS teachers had access to classrooms with well-equipped kitchen units and that lesson length varied from 60 to 120 minutes. For the purposes of this dissertation, convenience in HCS is viewed as comprising issues of time, budget, equipment, and storage space, but also students' and teachers' skills and abilities. In this section, I will relate aspects of convenience to the foods of interest in my studies.

To begin with time, if lessons are only 60 minutes long (Lindblom et al., 2013), there are limits to what can be cooked. You can typically bake a cake within an hour, but anything that requires more than 40 minutes in the oven or too many tasks – such as peeling, dicing, frying, and extensive washing up – must be avoided. This means that lessons of 60 minutes are more suited to sweet foods and snacks, or to cold foods such as salads and sandwiches, than to 'complete' hot meals with several cooked components. Indeed, even during 120 minute lessons, students can be stressed because the amount of tasks is disproportionate to the time frame (Lindblom, Erixon Arreman, Bohm, & Hörnell, 2015). The main issue here, which is unique to subjects where a practical task must be carried out within a specific time frame (chemical experiments is another example), is that the cooking assignment must be completed during one lesson. You cannot continue with your meal next time, and you cannot leave your kitchen unit dirty.

As for budget, it can vary a lot between schools. There is anecdotal evidence for more affluent municipalities letting HCS teachers buy whatever they want, while others face severe limitations. Where price is an issue, vegetables can be bought according to season, but they are still more expensive than ingredients needed for sweet foods, such as sugar and flour. Typically vegetarian foods like beans and lentils are relatively cheap, while meat is relatively expensive. Price is also tied to shelf life, since if a food goes bad, the money is wasted. Fresh vegetables have a short shelf life and take up a lot of space in fridges, while deep frozen vegetables can last for several months. Meat is also very sensitive, but can be stored at -18 degrees for a couple of months depending on fat content. Canned vegetables, meats, and fruits, dried pulses, sugar, and flour have an extremely long shelf life and can be stored at room temperature. Other ingredients like eggs, butter, and margarine require cool storage but do not go

bad for a long time. All this presupposes that there are fridges, freezers and cupboards with enough space to store them, but in some schools, there are not even designated HCS classrooms (Lindblom et al., 2013).

Familiarity with cooking methods and recipes also impacts the accessibility of different foods. For example, crops that are difficult to grow in a cold climate may have been historically unavailable in Sweden, leading to a lower level of familiarity with many vegetables compared to meat. If the teacher and/or students are not used to cooking vegetables, they may 'settle for' just dicing or slicing and making a salad, thereby missing the many opportunities for hot dishes. In contrast, sugar has been an important way of conserving fruit and berries during long winters, thus making it a staple in Swedish cooking. As for meat, if a teacher comes from a place where it is an important part of their identity, they may not be familiar with vegetarian cooking and can therefore have trouble including it in their lessons. Thus while cooking skills are originally a product of local culture and social identity as discussed under *Identity* above, they manifest very concretely in HCS as aspects of convenience. Granted, many cooking methods are included as a part of the curriculum in HCS teacher education, but this may not be enough to make up for an individual's background. Besides, around 28% of teachers are not certified (Lindblom et al., 2013).

To sum up what we have covered so far, I view the food and health content in HCS as an emotionally charged aspect of identity that is partly handled in a rational manner by focusing on responsibility. The possibilities for learning about food and health in HCS are constrained by issues of convenience such as time, money, space, equipment, and skills. When the content is at odds with a student's existing mental schemata, this either requires an accommodative (or even transformative) type of learning, or activates a defence mechanism that hinders or distorts learning. The external process of learning about food and health is highly dependent on social and physical circumstances both in the classroom and in the world outside, which is replete with 'facts', cultures, and opinions surrounding food. We will now take a closer look at how we can view those facts, cultures, and opinions – in one word, big 'D' Discourses – and how we can move from the cognitive and practical levels of food literacy to the empowerment inherent in the final, critical level.

Discourse and critical literacy

In this section, I will explain how the concept of big 'D' Discourses (Gee, 2010) and Janks's (2010) model of critical literacy can be applied to learning about food and health in HCS. I will begin with Discourse, since it forms the basis both for my method of analysis and for critical literacy.

Discourse

One way of exploring cultural values and underlying beliefs about food is by focusing on how people talk. Many different strains of discourse analysis have been created to serve different purposes in the social sciences, from macro-level societal discourse to the detailed focus on the niceties of spoken interaction by conversation analysts (Wetherell, Yates, & Taylor, 2001). The use of discourse analysis has also become common in education research, throwing new light on phenomena like knowledge construction and the typical Initiation-Response-Feedback exchange pattern between teachers and students (Gee & Green, 1998). This dissertation uses the concept of big 'D' Discourse as coined by Gee (2014a). A big 'D' Discourse does not only take spoken language into account, but also involves "acting-interacting-feeling-emoting-valuing-gesturing-posturing-dressing-thinking-believing-knowing-speaking-listening" (p 58). In other words, Discourse is based on a whole set of socially meaningful actions. Considering the social significance of food practices, I view them as a part of Discourse, too. Loosely based on the three levels of food literacy, a big 'D' food Discourse in HCS will here be understood as ways of conversing about food (speaking, listening, emoting, gesturing, and posturing), cooking/preparing food and eating it (acting and interacting), and evaluating diverse 'truths' about food based on physical and psychosocial dimensions of health (thinking, believing, knowing, feeling and valuing). Since this definition of Discourse informs the whole dissertation, the word will henceforth be written with a big 'D', even when referencing sources that do not follow this practice.

Inherent in Gee's (2010, 2014) definition of Discourse is the belief that language, like food, reflects identity positioning both on the part of the speaker and the listener. Individuals reproduce a Discourse by speaking and acting in accordance with it, for example by saying things like "I'm a meat and potatoes kind of guy" (Connors et al., 2001), but they can also challenge and transform it. Because of this, I view the social food norms that I discussed under *Food choice* above as Discourses, since they represent a worldview that dictates what is right and wrong, normal and deviant in a given society and time period. In this way, both Discourses and social norms act as 'blueprints' for how different people are expected to act. Therefore when I refer to social norms in this dissertation, they are to be understood as compatible and largely interchangeable with Discourses. This also means that utterances do not necessarily represent participants' 'true thoughts', but they do create a classroom culture of food and health that becomes the context for learning in HCS. In Illeris's (2003b) terms, they are the social environment where the external process of learning takes place, and as such they offer possible views that students can assimilate or accommodate in relation to their internal

mental schemata. Therefore the Discourse does not dictate what students learn, but only forms part of what is offered during the lesson and creates a certain set of possibilities and obstacles.

These possibilities and obstacles can be either reproduced or transformed. Another way of saying this is that language is both constituted by and constitutive of social practices. Words are created to describe human experiences, but once created, they also mould people's experiences to fit the existing description, and they can be changed over time to better reflect new experiences. For example, humans typically divide food into the categories 'good' and 'bad'. The terms 'good food' and 'bad food' describe, among other things, the way we experience a food with our sensory organs. The terms would not exist if there was not an experience that humans felt the need to verbalize. Thus the social practice of experiencing meaning in food has given rise to linguistic forms, and these linguistic forms – 'good food' and 'bad food' – condition language users to categorize food according to them. Thus the linguistic form in turn influences the social practice of experiencing a food.

The cycle does not end there, however. At some point, people start using the term 'good food' for a particular food group based on its perceived health properties. When this new nuance to the word is established, people are reconditioned to see 'good food' and 'bad food' as having to do with health, and not only with taste. So now we have 'good food' in the sense that its taste is appealing, and also 'good food' that is healthy, and these do not always coincide. Taste and health constitute two different Discourses where the adjective 'good' has different meanings. A prime example is this very dissertation, which is based both on the nutritional properties and the symbolic meanings of certain food groups. Even the food groups themselves are a result of Discourse: categories like vegetables, meat, vegetarian food, and sweet foods have their basis in plant taxonomies, nutritional content, and meal patterns. There are other possible categories, such as the dichotomy hot/cold which exists in many cultures (Fieldhouse, 1995). Thus language conditions users to see the world a certain way, but because there is never just one worldview at a time, opposing Discourses exist simultaneously, and anyone can challenge any Discourse at any point.

Such challenging is at the heart of critical food literacy, and of the model I will adapt to illustrate it (Janks, 2010).

An adaptation of Janks's model of critical literacy

Since teaching and learning about food means handling information that is potentially disruptive to cultures and social norms, a critical stance can reduce

the risk of some Discourses (and therefore people) consistently being promoted as better than others. It can also help reveal practices that counteract desired goals. However, people tend to reproduce dominant Discourses unconsciously (Janks, 2010), which means that teachers may have to work on becoming aware of how their way of talking about and handling food can convey ideologies between the lines. One way of doing this is by adapting Janks's (2010) model of critical (language) literacy to analyse taken-for-granted truths about food and health.

Like Gee's (2014) theory of Discourse, Janks's model is based on the ontological assumption that the way we talk and act reproduces or transforms existing norms and taken-for-granted truths. It has grown from extensive earlier research by a number of scholars of Discourse and literacy, and aims to merge them all into a single literacy model which, when allowed to inform teaching, has transformative potential. The model centres on four interrelated areas, namely *power*, *access*, *diversity* and *design* (Figure 4).

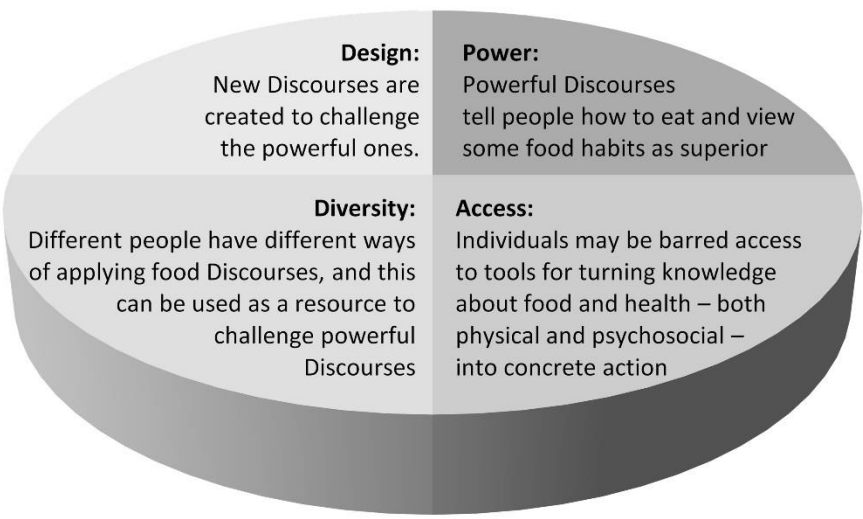

Figure 4. An illustration of the interrelated dimensions of Janks's (2010) model of critical literacy, applied to food and health in Home and Consumer Studies.

Power

According to the model, Discourse is a form of *power* in that it produces 'truths' that help uphold the dominion of certain groups in society. This interpretation comes from a merging of Foucauldian and Marxist views of power (as cited in Janks, 2010): where the Marxist tradition sees power as purely oppressive and 'top-down', Foucault views it as pervasive in all of

society, and productive in that it makes things happen. Power functions like a network throughout the social body, and knowledge/Discourse is used to steer the conduct of others. Through the disciplining power of Discourse, the individual self-regulates and reproduces a particular ideology without having to be forced. The domination of a particular Discourse is not inevitable or natural but a result of historical factors, and Janks (2010) argues that they must be critically questioned since their dominance categorizes people into good, obedient subjects and bad, disobedient ones. They also bar some people access to certain privileges in life.

As mentioned above, individuals reproduce a Discourse by acting in accordance with it, but they can also challenge and transform it. In the original model, this has to do with different language varieties, where dominating forms such as the standard dialect of a country are seen as superior. In the case of food, powerful Discourses tell people how to eat and view some food habits as superior. In Sweden, one strong Discourse holds that the individual is personally responsible for their eating behaviour and how it affects their health. This ideology developed during the 20th century (Bildtgård, 2002) and tends to elicit guilt, a powerful driving force for the self-regulating subject (Lupton, 1995). It ignores cultural and structural factors that govern food choice, and it does not take into account all the other factors which influence a person's health, such as housing and access to healthcare. Thus people may be convinced that their ill health is purely their own fault because of how they eat, and because of this they may work only on 'bettering themselves' within structures that hamper their struggle, instead of addressing the societal inequalities that privilege the health of the elite.

Access

However, only seeing and deconstructing the power at work in food Discourses is not enough. The next dimension of the model, *access*, shows that people must be given the opportunity to appropriate the powerful forms of Discourse in order to benefit from them. When related to language, this can mean having recourse to powerful forms of expression, such as a privileged dialect or the ability to write. In the case of food and health, individuals must be able to turn knowledge about food and health into concrete action – the practical level of food literacy. If, for example, students of HCS learn about the physical dangers of simple carbohydrates without being offered strategies for avoiding or replacing them, the knowledge becomes pointless and disempowering.

But access is not merely a case of learning the practical skills needed to cook healthy food, it also involves gaining access to a Discourse where the

individual is *allowed* to eat such food. For example, as we have seen, men have less access to vegetables, vegetarian food, and dieting than women because of social norms that view these phenomena as feminine (Gough, 2007; Gough & Conner, 2006; Lupton, 1996). This has repercussions on male health, since they do not have the same opportunities to apply healthy eating as women. Similarly, working class or poor people may self-identify as unhealthy eaters, and this may bar them from the benefits of the dominant physical health Discourse (O'Neill et al., 2004; Stead et al., 2011).

On a side note, a typical development is that when too many outsiders have gained access to a powerful Discourse, the dominant classes can 'change the rules' to uphold their dominion. For example, Oyserman et al. (2007) have argued that the social elite can choose which food habits are in-group defining, and the people who are lower on the social scale have to make do with what is left. This is how Discourse works: the goal of the elite is always to distinguish themselves from the masses (for a classic discussion of this, see Bourdieu, 1984).

Diversity

The third dimension in Janks's model is *diversity*. Connected to language, this dimension teaches us to use the resources offered by non-standard varieties to challenge the dominant ones. These alternative languages are not viewed as equally valuable by society, and in health education, there is a similar risk of being blind to the healthy food of a different culture because of prejudice based on sociological categories such as class and ethnicity (Germov & Williams, 2008). For example, the recipe sections of HCS textbooks and cookbooks may focus a lot on traditionally Swedish cooking, ignoring other cultures' ways of eating healthy – or it may be the other way round, and they may marginalize rural Swedish traditions and foreground a middle class ideal of globality, travelling, and distinction through omnivorousness (Johnston & Baumann, 2007).

Thus the dominant Discourse cannot be made accessible unless we recognize that different people have different ways of applying, say, a health Discourse in concrete behaviour. The resource of diversity already exists in the classroom, but also in the surrounding society and online. By developing an awareness of diverse traditions, including those very close to home and therefore maybe hardest to see, students can avoid being kept within the limits of their own culture – 'ghettoized' (Janks, 2010). When different ways of eating are allowed and even promoted, potential clashes may give rise to new ideas and new behaviours. For example, it is not hewn in stone that green peas

must be served with white fish – perhaps some people prefer avocado or aubergine.

Design/redesign

The final dimension, *design* or *redesign*, is where all that we have learnt in the other dimensions is used to create an alternative Discourse. It is needed to transform dominant forms into something new by using the resources offered by diversity. If this step is overlooked, human agency is removed with disempowerment as a result. Possibilities for healthy choices need to be grounded in students' own cultures and circumstances, but also inspired by other traditions and viewpoints. Diversity and the ideas it engenders must also be given venues for distribution so that they are not lost on the margins. When redesigning the Discourses, it is important to be aware of the powerful variants already in play so as not to unconsciously reproduce them, and also to recognize that each new design promotes the interests of a new group of people. In other words, no Discourse is neutral (Janks, 2010).

Thus a theory of power – of what makes a Discourse dominant, how this came to be, and who benefits from it – should always be accompanied by granting everyone access to it at the same time that we allow diversity to confront the dominant Discourse and bring about change. The Discourse of personal responsibility for health must be seen for what it partly is, an attempt to control people through self-regulation in the interest of, for example, national economy. At the same time, if people are *not* familiar with the health Discourse, they do not have access to the very real advantages it offers – and this includes being able to acquire, prepare and enjoy physically healthy foods without breaking the rules of one's own culture. At the same time, and perhaps less obviously, students from cultural backgrounds which harmonize with the physical health Discourse need to be made aware of other aspects of health and how the Discourses surrounding these risk being viewed as inferior. It is not just a question of the 'unhealthy' students gaining access to a healthier lifestyle, it is also about 'already healthy' students deconstructing their own (potential) perceived superiority, for example by seeing the stigma attached to illness, obesity, and so called 'junk food' (Lupton, 2013; Vartanian et al., 2007).

Summary

On the cognitive level of food literacy, then, the individual learns about and acknowledges different kinds of 'truths', not only a taken-for-granted, dominant Discourse. This process can be facilitated or hampered by influential cultures that form the mental schemata people measure new

information against. On the practical level, the individual is able to apply the sometimes conflicting information of the first level both in verbal reasoning and in cooking. This application is facilitated or hampered by social norms surrounding food choice. On the critical level, the individual can make informed choices based on both physical and psychosocial health aspects – choices which will be unique to every person. Thus a student might understand the impact simple carbohydrates can have on the body according to nutrition science, but also that sweet foods function as a social glue (cognitive level). They might show this knowledge by making balanced meals that include a limited amount of sweet foods based on, say, symbolic value related to time of year (practical level). Finally, they can decide to eat more sweet foods than recommended by medical authorities because it is socially important, all while knowing the possible physical consequences to such behaviour and how they can change their habits in the future to enhance physical health (critical level). In other words, empowerment can mean that an individual does the exact opposite to what others may want them to, because it is right for them.

This means that the more food literate a person is – the broader their knowledge of different foods, how to cook them, how they contribute to physical and psychosocial health, and what is consumed in different cultures – the more tools they have to make informed choices in their own lives. Learning to cook varied and balanced meals and to reason around food and health as required by the syllabus (National Agency for Education, 2011a) can lay the groundwork for this. The question is whether the food Discourses used during actual HCS lessons are conducive to critical food literacy or not. To find out, I conducted four studies that will be described in the next chapter.

3. Method, materials and analysis

Data collection

Access to the field and pilot study

I contacted a school where I had worked before and knew the HCS teacher, and asked if she was interested in taking part in a study. When she agreed to this, I confirmed with the headmaster and then sent information letters to the legal guardians of the students in grade 5, 8, and 9. I chose these classes because they had an explicit focus on food and health according to the teacher, and at the start of my doctoral studies, I planned to explore students' attitudes to food and health education. In the long run, the focus on attitudes became too quantitative and untenable because of clashes with other research traditions, so the research question underwent many changes. However, the focus on food and health remained, and the changes in aim were deemed acceptable since the study was exploratory. Written, informed consent for audio recording, observations and filming was obtained from teachers, students, one student assistant and, for students under 15 years of age, also from a legal guardian. In the letter, the study was described in very general terms, stating that the area of interest was how students perceived instruction on food and health in HCS. Further details about the precise aims were left out, partly because the aim at that point was quite vague, and partly because I did not want participants to be too focused on the purpose of the study. The letter also guaranteed that I would not judge students' capabilities, but only focus on their opinions. The consent form required them to specify if they consented to being video-taped, recorded with sound and/or if they only wanted to be observed. Only grade 5 and one group in grade 8 consented to being video-taped.

I began by doing a pilot study where I conducted group interviews with two grade 5 groups and four grade 8 groups, observed lessons in grades 5 and 8, and let students in grade 5, 8, and 9 fill in a survey that focused on attitudes towards learning about food and health. The observation data from the pilot study were eventually included in the analysis of the data from the whole study, but the interviews and the survey were left out of the dissertation, but formed part of the known context during the analysis stage. After doing the pilot study, I continued with observations in grades 5 and 8. I also contacted another school where I knew the HCS teacher and went through the same process as above with securing consent from students and legal guardians in grade 7. In addition to the data from these two schools, I used material from a study conducted by Cecilia Lindblom, a department colleague who was also a

doctoral student. Lindblom chose to study three grade 9 groups because of her interest in what the students had learned towards the end of their HCS education. The three groups were in three different schools, and Lindblom observed two lessons in each one. Her procedure in contacting teachers and students resembled mine, except that all her participants were over 15 and could sign their own consent form. All the lessons that Lindblom observed were video-taped.

I emailed headmasters of ten additional schools in the same municipalities in an effort to create interest in my study, but there were only two replies and neither of them positive. After this, no further effort was made to find more participants, since the sample was deemed large enough for a Discourse analysis.

Participants and schools

All in all, 26 HCS lessons in ten different student groups in five schools were observed, recorded with sound and, in the seven out of ten groups where consent was obtained, video-taped (Table 1). Of the 59 participating students, 38 were girls and 21 were boys. Their ages ranged from ten to 16. The five teachers were all female. Four were certified and one was still in training. At the time the study was conducted, HCS was mostly taught in grades 5, 8 and 9 (Lindblom et al., 2013). Grades were given in year 8 and 9, based on goals to be reached at the end of year 9. There were also knowledge goals for year 5 or 6, depending on the syllabus used, with written assessments instead of grades (National Agency for Education, 2000; 2011a). For the students in year 9, the syllabus from 2000 was still in use, while years 5, 7, and 8 used the 2011 one.

Both students and teachers were predominantly of Swedish ethnicity, and none of the catchment areas were especially disadvantaged. The schools were located in five different villages and towns of between 1 500 and 117 000 inhabitants in northern Sweden. To facilitate reading, I have named the schools Green Forest (grades 5 and 8), Sea Town (7), Coastal Village (9:1), Leafy Suburb (9:2), and City Centre (9:3) to reflect geographical placement and level of urbanity. These names do not occur in the articles, but the groups are numbered 5:1, 5:2, 7, and so on in the same way they are in the articles, based on school year and the order in which they were observed.

Table 1. Details about participants, schools, and data collection.

Name of school (fictitious)	Type of place	Type of school	Class: group	Age in years	Data collection methods	Number of lessons observed	Number of participants per lesson	Approximate length of sound files in minutes per student
Green Forest	Inland village	Small, with a rural catchment area	5:1	10–11	Observation, video, mp3	3	5–7 students 1 teacher	60
			5:2	10–11	Observation, video, mp3	3	5–9 students 1 teacher	60
			8:1	14–15	Observation, mp3	1	5 students 1 teacher	70
			8:2	14–15	Observation, video, mp3	1	7 students 1 teacher	80
			8:3	14–15	Observation, video (one lesson), mp3	3	5–6 students 1 teacher	80
			8:4	14–15	Observation, mp3	5	3–5 students 1 teacher	80
Sea Town	Small coastal town	Medium size, with an urban catchment area	7	13–14	Observation, mp3	4	2–4 students 1 teacher	80
Coastal Village	Coastal village	Large, with a rural catchment area	9:1	15–16	Observation, video, mp3	2	4 students	120
Leafy Suburb	Medium-sized coastal town	Medium size, with a rural catchment area	9:2	15–16	Observation, video, mp3	2	6 students 2 teachers	70
Central City		Large, with an urban catchment area	9:3	15–16	Observation, video, mp3	2	4–12 students 1 teacher	70

The Green Forest School lay in an inland village and had students enrolled from areas with as little as 60 inhabitants. Ways of life were quite traditional, with many people working in sectors like forestry, farming, transport, and healthcare. The area had a strong hunting tradition. The Sea Town School lay on the coast and had a less accentuated hunter culture than the inland village. Its catchment area was mainly the suburbs of a town with a prominent societal focus on sports. The Coastal Village School lay a few miles outside a university town known for the upsurge of militant veganism in the 1990's. It had a rural catchment area from surrounding villages, and many people commuted to the town to work. The Leafy Suburb School was located at the outskirts of the same town and had a catchment area that comprised several surrounding villages. The City Centre School lay in a well-off part of the university town. It was centrally situated and newly built, with many high-performing students from academically oriented homes. The three schools that lay in or close to the university town served a freely available vegetarian alternative to the main dish in the lunch canteen, whereas the Sea Town School and the Green Forest School only served a vegetarian dish to students who could somehow prove that they were vegetarians. The latter practice dates back to earlier times when all schools in Sweden required a certificate from students who wanted to eat vegetarian food. This certificate served to show that they had a legitimate reason to eat something other than the standard food offered, since any alternative dishes would require extra staff and cost more money.

Observations

Twenty of the observations were carried out by me, and the remaining six by Lindblom. We were both participant observers without fixed questions, but rather with what Hammersley and Atkinson (2007) call a 'shopping list' of thoughts about the phenomenon of interest. Since the research question was not specified before data collection started, the first data played a big role in the development of my research. Specifically, none of the lessons contained much talk about food and health at all. Partly because of this and partly because I abandoned the research area of attitudes, my first aim had to be reformulated. I could also have changed locations in the hope of finding more explicit talk about food and health, but I doubted that this would help much, and by the time I realized how little participants touched on the subject of health, I already had 165 hours of footage and did not want to waste it. Therefore I made do with the material I had, which proved very fruitful in the end.

My observations were unstructured, but I marked foods that students used and clock times when larger events took place, such as run-throughs, meals

and dish-washing. I followed the advice in Derry et al. (2010) to mark any analytical comments by 'MEMO', thus keeping them apart from what was purely observational. I also made copies of written artefacts, such as recipes and question-and-answer sheets. These documents were not directly used in the subsequent analysis since the audio recordings were the main source of data, but both field notes and video footage were helpful when I wanted to clarify what participants were talking about and what they were doing.

The number of observations per group varied a lot, because time was lost due to holidays, work experience programmes, theme days, and sports days in the schools. In addition, I had doctoral courses which limited the time I could spend in the field. The number of students who wanted to participate also varied. For example, very few students in grade 7 gave their consent for being observed and recorded, while in 9:3, almost everyone participated. Six of the 59 students dropped out during the course of the study, and of these, all were in grade 5 and 7. The three grade 7 students who dropped out had switched the mp3 recorder on and off during the first lesson and talked a lot about being recorded. In 5:2, two boys dropped out after one lesson, seizing the opportunity when there were not enough mp3 recorders for everyone[2].

Sound recordings

To secure student-centred data and good sound quality, each participant had a microphone that was attached to an mp3 recorder. This minimized intrusiveness, since the camera did not need to come close to the action to pick up sound from participants who moved around a lot. It also meant that we obtained as many sound files as we had participants. One problem that arose in one of my groups was that one student lacked pockets to put her mp3 recorder in. She solved this by putting it in her sock instead, which hampered her movements during the entire lesson. I suggested that she put it in her apron, but she was satisfied with her sock solution. After that I made sure to bring bum bags, but the problem never arose again.

The individual microphones had the added advantage of capturing what approximated the student's own experience of the situation: those speaking nearest to each participant were clearly heard, while the talk of other groups was often inaudible. It was therefore possible to guess how each participant

[2] The reason for the mp3 recorder shortage was that Lindblom and I sometimes observed different classes on the same day, which meant that the recorders had to be shared. We could have decided to skip a lesson instead of observing fewer students, but the groups only had HCS once a week at most, and in some cases once every other week, which meant that we would have lost a lot of data if we did not use every possible opportunity to record.

experienced the lesson and who, if anyone, entered 'their world' at different points.

Video-taping

During the 15 observations where filming was permitted, Lindblom and I used two Kodak Zi6 cameras. Derry et al. (2010) hold that only one camera is most common in classroom research, and that it is often placed to capture the whole room. This proved impractical in this case, since not all students gave their consent to be filmed. Moreover, the layout of the classrooms made it impossible to see everything from one angle: cupboards in the kitchen units were in the way and blocked out whole areas where students worked. This meant that we needed two cameras in order to capture more than one group of students as they worked in their kitchen units. The cameras were positioned on tripods, and when necessary, they were moved to better capture student interaction, which has been seen to facilitate subsequent speech analysis (Heikkilä & Sahlström, 2003). One drawback to using a tripod is that the footage becomes too static, but important advantages are stability, good picture quality and minimal intrusion. It also gives a lone camera operator the chance to supervise both cameras and to cover the lens should a non-participant move in front of it. Forbidding these students to move freely in the classroom would have been too intrusive and influenced the lesson.

However, listening to my first two recordings, I realized that the students were very aware of my efforts to avoid capturing non-participants on camera, and this proved quite disruptive. Therefore I chose to put the cameras on tables immediately in front of the kitchen units instead, where non-participants seldom needed to go. This meant that my behaviour vis-à-vis non-participants was less noted, but also that the camera was closer to the targeted students and therefore more intrusive. Being closer did bring with it further advantages, however, such as being able to survey both cameras simultaneously and making more sophisticated and spontaneous decisions about angles when students moved around. Derry et al. (2010) advise against zooming and panning too much, since this limits later analysis, but Heikkilä and Sahlström (2003) argue that by remaining too far from one's area of interest, minute details can be lost, and situations can appear less interactional than they are. I had to operate the cameras a lot, since I never knew in advance where students would choose to work, which meant that each time they changed workbenches, for example, I needed to reposition the camera or pan it. At any given time, foodstuffs and students risked being concealed by fellow students, by the teacher, by cupboards, and by other foods. In these cases, doing nothing would have resulted in a complete absence of data. For example, students sometimes gathered around an almost

finished product, such as a pizza. In these situations it made sense to move the camera, since filming from the usual distance and angle would only have shown their backs.

As much as possible, I strove to capture food items on camera, since my analytic focus was partly on students' physical interaction with these. I made sure to film when they used or did not use a certain food item, their physical positions in relation to the food, gestures and, where possible, glances and facial expressions. Such minor details were often difficult to catch, however, especially when students turned away from the camera. There were also instances of extremely chaotic activity where I could not operate both cameras simultaneously. Therefore I sometimes chose to abandon one camera to tend to the other one manually, and there was always the risk of students choosing this instant to move out of range. Sometimes I missed events in one kitchen unit for the sake of capturing something relevant in the other. Each of these choices had to be made in a split second, and may sometimes have been the wrong one, but judging by the resulting footage, I have secured as much data as possible under the circumstances. In hindsight, it might have been wise to enrol an assistant to help with dilemmas like these, but then again, my main interest lay in participants' talk, so any loss of visual data did not impact the results much. Furthermore, another observer would have been twice as intrusive as just one.

Ethical considerations

The study was approved by the regional ethical board (Dnr: 2010-255-31M). Approval was made for observing, recording and video-taping students during HCS lessons. The Swedish Research Council's (2011) rules and guidelines for research were followed. In order to make the participants as comfortable as possible, the information letter explicitly stated that they were allowed to drop out at any time without giving a reason for this. To protect the participants who did not give consent to be filmed or who dropped out of the study, both cameras were constantly surveyed throughout the study and lenses covered or cameras moved when non-participants moved towards them.

Video-taping and sound recording of children can be a delicate issue, since such close surveillance may be perceived as intimate and intrusive (Heikkilä & Sahlström, 2003). Throughout the study, I therefore strove to pick up on any discomfort among students. Sometimes I heard them censor themselves on the recordings and one student asked me to ignore his swearing, but no other ethically sensitive situations that seemed to require taking action arose during observations. Only when I started processing the data did I realize that students were sometimes quite aggressive towards each other. It might have

been a good idea to communicate these conflicts to the teacher or to intervene, but since I was not aware of the conflicts during the study, that opportunity was lost.

Data processing

Categorization and memos

The data collection resulted in 165 hours of student and teacher talk, spread out over 34 hours of lesson time. With three to ten sound files and in some cases one to four film clips per lesson, there was a very real risk of confusing the data. This made categorization essential. Categorizing the data was my first analytical step, since this was where I decided what to make salient about each clip. I used the same prefix for all my files, based on student group, school (initial), and date, for example "5G 120424". On individual sound files the made-up name of the student was added, as in "5G 120424 Nils". Film clips instead included the main activity, for example "5G 120424 Run-through", or a name for a specific kitchen unit, as in "5G 120424 Green". The folders containing each of these sessions were labelled the same way, with the food prepared used as a suffix: "5G 120424 Pizza".

Before transcription began, I familiarized myself with the material in a very general way. I listened to all the sound files in sequence, which gave me both a holistic and a detailed impression of each lesson. It was during this familiarization phase that I discovered that even though I had chosen to observe lessons with a food and health content (according to the teacher), there was almost no discussion about health at all. Most of the students' talk was about things outside of school, followed by cooking methods and amounts of ingredients in the recipe. Since explicit utterances about health were too sparse to analyse, I scrapped my initial aim and let other phenomena of interest arise from the data. While I listened to the files again and again, I wrote down a few typical expressions that caught my interest and which represented students' views of what was happening, as for instance "That's mine!" and "I want pineapple on mine". Having thus formed an overall impression of each lesson, I identified events that seemed relevant, such as "heated discussion about how crispy the cookies should be before they are taken from the oven" and marked the time and sound file for these events. I also made a list of my files with a few memos in a word document, for example *guilty use of sugar* and *pride in creation of individual pizzas*. This was an early form of analysis that later steered my focus, since most of these seemingly random thoughts turned out to be usable in my Discourse analysis.

After watching and listening to a negotiation about tomatoes (see *Analysis* below) several times, with and without my supervisors, I decided that my first study would focus on vegetables. I defined vegetables as an edible plant, excluding fruit, grains and nuts. It also excluded foods that functioned mostly as a spice, such as garlic, and included avocado, olives, pulses, mushrooms, and sweet corn, because the layperson often views them as vegetables. In a few cases, discussions concerned a whole dish rather than just a vegetable, but since the vegetable may have influenced views of the dish, they were deemed relevant for the analysis.

The next pair of issues that often cropped up had to do with meat (animal flesh) and vegetarian food. I analysed these two types of food in tandem with each other, since talk about them tended to occur together, but for reasons of scope the analysis resulted in two different articles. Meat was defined as all animal flesh, and vegetarian food as food devoid of animal flesh but including dairy products and eggs. Finally, sweet foods emerged as a type of food that tended to create conflict. Before familiarizing myself with the data, I had expected fatty foods to take this role, but participants did not talk much about fat at all. Sweet foods were defined as foods with a high content of simple carbohydrates, such as fruit, granulated sugar, and pastries. Thus I chose vegetables and meat loosely based on the traditional taxonomy of the food circle, and vegetarian food and sweet foods based on a more meal-oriented categorization. I could have chosen to transcribe all talk about all food types, but vegetables, meat, vegetarian food, and sweet foods tended to spark strong feelings compared to things like pasta and potatoes. For each food, I ignored simple talk about amounts or cooking times unless there was disagreement between participants.

Transcription

All negotiation and evaluative comments about vegetables, meat, vegetarian food, and sweet foods were transcribed verbatim, using a simplified version of the classic transcription key developed by Jefferson (cited in Lerner, 2004). I transcribed most speech according to written spelling rules, but with some phonetically coloured modifications to better mirror spoken language and dialect. To retain the tone of participants' speech, translated quotations in Results retain some characteristics of spoken language and slang. Where an English equivalent to an informal word or way of pronouncing a word was not found, another word in the same sentence was used to express roughly the same thing. Dialect words were not translated into English dialect words, since they were too idiosyncratic.

The drawback to having several sound files was that they were not synchronized with the camera or with each other, which sometimes made dialogues difficult to transcribe. However, the microphones were good enough to capture sound within at least a two metre radius, which meant that I could often hear in what order utterances came and could insert them in the right place. Another issue I had to decide on was how to represent simultaneously unfolding conversations and activities throughout the classroom. One alternative was to transcribe conversations within each kitchen unit group separately, which meant losing context when students addressed each other across kitchen unit boundaries. Choosing the other path, that is transcribing everything chronologically regardless of logistics, would have solved that problem. Unfortunately, it posed another one: the transcription would have ended up very cluttered and difficult to read. In the end, I chose the first alternative. I considered using different colour codes for different kitchen units, but I knew my data so well that I did not need to: I knew exactly which participant belonged in which kitchen unit.

In quotations, all names have been changed to maintain confidentiality. Following the accepted practice in Sweden, teachers are referred to by first name synonyms. In quotations, empty brackets ( ) denote unintelligible speech, double brackets (( )) contain descriptions, square brackets [ ] contain additional information, and 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. Some of the quotations are different from those in the articles to show a broader range of Discourse usage.

Analysis

The specific variety of Discourse analysis employed in this dissertation (Gee, 2010) has developed within the critical tradition started by Fairclough (1992). Critical Discourse analysis presupposes the wielding of power to be an important aspect of language use. The method is not ideologically neutral, but has as its explicit goal to scrutinize and question taken-for-granted 'truths'. To do this, linguistic tools such as vocabulary, grammatical constructions, and metaphor are connected to linguistic theory, sociological research, and a personal knowledge of the context in an effort to interpret participants' utterances and actions. Being a part of the culture under study can therefore be both a help and a hindrance, since knowledge of cultural interpretations may make it easier for the researcher to put themself in the participants' shoes, but at the same time they must bracket their own preconceived notions in order to objectively question what is seen as natural and inevitable (Fairclough, 2013). Therefore my background in dietetics, secondary school

teaching, language studies, and northern Swedish culture should be understood as a context for the analysis.

The Discourse analysis followed Gee's (2013) method, where 27 analytical tools take the analysis from the very detailed to the more abstract (Table 2). In a first step, utterances were analysed for details like word choice, grammar, and intonation. In the example (Table 2), the teacher answers a question about how many cookies will result from the dough by saying, "That depends on how much you eat on the sly." Here, the expression *on the sly* indicates that there is something half forbidden about eating cookie dough. On a second level of abstraction, utterances were analysed for what the speaker did and designed through the way they talked (activities, meanings, and so on). In this case, I interpreted the teacher's utterance as attempting to achieve both a gentle form of discipline and a good relationship with the students through a relaxing of the rules. The third level concerned what participants tried to build and sometimes destroy in the world when it came to more abstract phenomena like identity and relationships. For example, the above quotation constructed the students as somewhat naughty and secretive, and the teacher as both an authority and a friend. Finally, on the fourth level, I summarized my findings and made theoretical connections to create big 'D' Discourses. In the example, sweet foods were constructed as being both a coveted treasure and an unnecessary extra, forcing the teacher to navigate these contradictions by being both 'kind' and 'stern'.

The method is extremely detailed. By thinking through the same utterance 27 times, more and more associations were allowed to emerge, and I saw the situation from several viewpoints. For example, by scrutinizing pronouns, I found that one teacher avoided responsibility and possibly conflict by frequently omitting this category of words. She would say "Have to do that [cook something vegetarian]" instead of "You have to do that" or "We have to do that". This was consistent throughout the observations, and gave me an image of her as slightly insecure in her role as an authority. While I did not explicitly discuss her pronoun omissions under Results, it helped me to interpret her actions surrounding vegetarian food as avoidant, possibly indicating that she was not familiar with such cooking.

Table 2. Abridged analysis of a sample quote, using Gee's (2010) four levels of analysis.

Teacher: [answering a question about how many cookies will result from the dough] That depends on how much you eat on the sly.	
First level: linguistic features	'On the sly': The teacher addresses the students with a half-veiled accusation that if they eat too much of the cookie dough in secret, they will not have as many finished cookies at the end of it. This indicates that such behavior is expected but not entirely sanctioned.
Second level: saying, doing and designing	The teacher attempts to regulate student behaviour in a non-confrontational way, and hints that although she expects them to eat 'on the sly', there is a limit to how much she can tolerate. She does this is a slightly jokey, light-hearted way, at the same time that she sounds slightly disciplinary. She might also be trying to build a relationship with the students by showing that she understands their desire to eat of the dough, but at the same time she reminds them of the rules.
Third level: building things in the world	The teacher creates a rule-breaking, childish identity for the students, but also the ability to take responsibility if they think of the consequences to their actions. She becomes a kind yet slightly admonishing figure who shows understanding but has to enforce the rules so that things do not derail into chaos. Her relationship with the students is one of gentle authority that instructs through reminders and leaves them freedom with responsibility. The cookie dough is constructed as attractive, but it has lower status than the finished cookies.
Fourth level: theoretical tools	A 'good student' can partly break the rule of not eating the cookie dough because everyone knows that it tastes good (Discourse: the coveted treasure). However, cookie dough is not real food, and the student has a responsibility to limit their intake without the teacher having to use her authority to explicitly tell them so (Discourse: the unnecessary extra).

Another strength of the method was that in each dialogue, identities and relationships shifted very quickly, sometimes within the same word, and the 27 tools helped me pinpoint exactly what was happening. For example, when the three boys in 5:1 did not want to use the tomato, there was a moment where the teacher asked if they were eating them or not, and Nils said "Jao", a modified version of the Swedish word for 'yes'. This form of the word enabled him to answer the teacher in the affirmative, thus keeping his status as a good student, at the same time that the slangy 'O' sound at the end of the word was drawn from a more youthful social language and signalled to his peers that he did not really mean 'yes'. I interpret the word as a way of agreeing with adults on the surface, while secretly disagreeing. According to the Swedish equivalent of the Urban Dictionary (Slangopedia, 2016), 'jao' can be used in a sarcastic or disillusioned way. Thus my final interpretation of the tomato incident was informed by my impression that Nils wished to balance his identity as obedient student with an independent will and affinity with his peers. Again, this did not make its way into the Results section, but showed how the HCS context had an aspect of evaluation.

Thus each of the 27 tools took me closer to a kind of core, gave new ideas and deepened the ones I already had. When I had looked at each utterance from 27 angles, I went through everything I had written or dictated into an mp3 recorder to see larger 'trends'. The final two tools were used almost like a Discourse analysis of my own analysis to see the binding thread in my interpretations. Here each little detail could be related to other details to form a pattern. For example, the fact that participants only used advanced language (as opposed to everyday talk) when they discussed nutrients tied to a specific assignment, coupled with the occasional distorted voice used when saying words like 'healthy', 'calcium', and 'fibre', told me that some students did not view reasoning about health as familiar to their identity. It was more of a role they played because they were required to do so in the classroom, and these linguistic forms functioned as a distancing device.

After naming between two and four Discourses for each studied food, I summarized what defined each of them and gathered quotations that illustrated them clearly. In the next chapter, I will present each study in turn and then summarize and compare them to each other.

4. Results

In this chapter, I will first present a brief summary of the Discourses in each study as they were structured in the articles. Then, for the sake of clarity, I will rearrange the results of the meat, vegetarian food, and sweet foods studies according to the Discourses in the vegetable study. These overarching Discourses will be dubbed sensory, cultural, social, health, and evaluation. This does not invalidate the results as they stand in the articles, but rather offers a way to compare the results of the four studies using a common nomenclature.

The analyses of all the foods are based on the same data, which means that some general information concerns all the studied lessons: during some of them, students were allowed to plan their own meals, a freedom which was partly limited by recipes and lesson themes (Table 3). In group 7, all meals were chosen and planned by the teacher. In 9:2, students modified a recipe chosen by the teacher based on specific health requirements. In 8:2, 9:1, and 9:3, each kitchen unit group chose what dishes to cook, but had to take cultural or health aspects into account. Groups 5:1 and 5:2 had made a list of what they wanted to cook at the beginning of the semester, and each week the teacher chose something from that list. In 8:3 and 8:4, students were allowed to cook what they wanted within a theme such as 'minced meat', 'vegetarian food', or 'eggs'. When the recipe was chosen by the teacher, she typically specified how much freedom of choice would be allowed at the beginning of the lesson, for example what toppings were available for a pizza. Students were generally expected to eat either what their own kitchen unit group had cooked, or everything the whole class had cooked. The only exception to this was that when the lesson theme had nothing to do with vegetarian food, only vegetarians were supposed to eat of specifically vegetarian dishes.

In general, talk was very 'everyday' and relaxed. More advanced language was only used with the health Discourse (see below), when participants stated 'facts'. All Discourses were used by both students and teachers, and by students of all ages and in all schools. Each Discourse could be used to argue both for and against a given food. They could co-occur and overlap, and more than one could be used by one and the same participant, even in the same sentence.

Table 3. Lesson themes and meals during the studied HCS lessons.

School	Group	Lesson theme	Meal planned by	Dishes cooked
Green Forest	5:1	Snacks, the food circle	Teacher and students	Hot sandwich, sandwich roll
		-	Teacher and students	Red groats
		-	Teacher and students	Pizza
	5:2	-	Teacher and students	Pizza
		-	Teacher and students	Cookies
		-	Teacher and students	Swiss roll
Sea Town	7	Snacks, nutrients	Teacher	Red groats
		Fat quality, protein	Teacher	Sausage casserole, rice, lettuce
		-	Teacher	Pasta, minced meat sauce, carrots
		-	Teacher	Vegetarian pasta gratin, lettuce
Green Forest	8:1	Micronutrients	Teacher	Sausage casserole, rice or pasta
	8:2	Calcium, iron	Students	Ham and vegetable gratin, rice
	8:3	-	Teacher	Sausage casserole, rice or pasta
		Cooking with 9 litres of water[3]	Students	Hot sandwich, pancakes
		Pasta	Students	Pasta, chicken sauce
		Vegetarian meal	Students	Carrot soup
		Soup	Students	Chicken soup, potato and leek soup
	8:4	Micronutrients	Teacher	Sausage casserole, rice or pasta
		Chicken	Students	Chicken pie
		Pasta	Students	Fried sausage, pasta
Coastal Village	9:1	Health, economy	Students	Chicken, rice and pizza salad
		-	Students	Lasagne
Leafy Suburb	9:2	Macronutrients	Teacher	Pasta, lentil sauce
		Allergies	Teacher	Potato pancakes
Central City	9:3	Nordic food	Students	*Palt*, Finnish pasties, pea soup, reindeer casserole, potatoes and lingonberry jam
		World food	Students	Pita bread with chicken and tomatoes, chicken wok and rice, chicken with corn bread and guacamole, meatballs and couscous salad, chick pea casserole

[3] An assignment where students are allotted 9 litres of water per group and have to make do with that amount throughout cooking, eating, cleaning, and washing up.

Study 1: Vegetables

Sixteen of the 26 studied lessons involved cooking with vegetables (see Table 3). Students and teachers spoke about vegetables in both negative and positive ways, using *sensory*, *cultural, health* and *evaluation* Discourses. In short, the sensory Discourse had to do with taste, the cultural Discourse was based on recipes and traditions, the health Discourse with medical aspects of physical health, and the evaluation Discourse with school assignments and grades.

The sensory Discourse: pleasure and disgust

In the sensory Discourse, vegetables were assessed based on visual appearance, taste, smell, consistency, and sound. They could be appealing or disgusting, and students used the Discourse to get more of what they liked and less of what they did not like. Some students were annoyed when they did not get the desired amount of appealing vegetables.

> *Ingrid: She [the teacher] said, 'Take what you need', I'm going to take a lot, because I love lettuce. ((Laughs)) How much should we take, then? (…) I just, 'Then we'll take the whole thing', and she just, ((affected voice)) 'No, just take what you need'.*
>
> *(Sea Town School, 7)*

In contrast, students were equally dismayed when an otherwise tasty dish was ruined by a 'bad' vegetable.

> *Cecilia: Yeah, I don't think these [the haricots verts] are very good, so I'll eat them on the side. (…) The green ones were no good.*
> *Josefine: No. ((Laughs))*
> *Cecilia: They were seriously yucky.*
> *(…)*
> *Josefine: Nobody wants the green ones.*
>
> *(Green Forest School, 8:3)*

In both of these quotations, there was an underlying expectation that students should be free to choose according to their sensory preferences. Granted, Ingrid in 7 took less lettuce than she wanted, but Josefine and Cecilia in 8:3 pushed most of their haricots verts to the side and did not eat them, and teacher Birgitta did not object.

The cultural Discourse: mandatory or optional?

The cultural Discourse was based on recipes, habits, and traditions, and it determined whether vegetables were mandatory or optional. Mandatory

vegetables were part of a recipe or connected to a specific culture, like tomato sauce on a pizza or onion in a minced meat sauce. Mandatory vegetables were difficult to avoid, since they were integral to a dish. During teacher Olivia's run-through of such a recipe in 7, Inez questioned why they had to use onion.

> *Inez: ((Sighs)) Why is there an onion there?*
> *Teacher Olivia: ((Cautiously)) Because you're using it.*
> *Inez: What?*
> *Teacher Olivia: You're supposed to use it.*
> *Inez: Look, can I say something – look, onion… that's like… ugh!*
> *Teacher Olivia: Yeah, but it's like a spice.*
> *(…)*
> *Teacher Olivia: You cut it like this… or if you want really small pieces…*
> *Inez: But I don't want any pieces at all.*
> *Teacher Olivia: No, then you can grate it.*
> *Inez: Oh no!*
> *Teacher Olivia: That way you get the taste.*
> *Inez: No, but I don't want… I don't want… onion at all. Look, I'm like allergic, it feels… it feels like.*
> *Teacher Olivia: No, but if you grate it, then you don't get any pieces.*
> *Inez: Oh no, yuck.*
> *Teacher Olivia: Then you get the… then you get the… taste.*
> *Inez: I don't want the taste.*
> *Teacher Olivia: So it says heat the cooking fat in a frying pan… ((Describes the rest of the recipe))*
> *(Sea Town School, 7)*

Olivia and Inez debated the onion for several minutes. At first Olivia used the cultural Discourse to show that the onion was mandatory, but then shifted to the sensory Discourse to explain why the recipe required it. Ultimately, she ignored Inez's protests by starting to describe the rest of the recipe, thus marking that the cultural Discourse was inviolable.

In contrast to the mandatory status of the onion, optional vegetables were not tied to a specific dish or tradition, and were only used if the students wanted them. They were the least important part of a meal, easy to ignore, and never forced on anyone. This was again illustrated by Olivia when she finished a run-through by briefly mentioning lettuce.

> *Teacher Olivia: Then the… hey… hey, one more thing. There's lettuce… for those who want it. You can cut up a bit of... lettuce.*
> *(Sea Town School, 7)*

Here the lettuce was a mere afterthought, mentioned only when the students were already on their way to the kitchen units.

The health Discourse: fibre and nutrients or nothing at all

In this Discourse, the choice to use a vegetable was based on health. In some cases, vegetables were simply seen as generally healthy, but they could also be containers for specific nutrients. The health Discourse was closely related to the evaluation Discourse (below), in that it was only used when a specific assignment required it. In 9:1, for example, Ante and Urban had planned a meal for all the students to cook, and during their run-through in front of the class, Ante referred to the health Discourse as a reason why they included pizza salad in their meal.

> *Ante: ((Sighs uncomfortably)) Okay. We're sort of going to make chicken with rice with pizza salad and bread and garlic butter.*
> *Julia: ((Doubtful)) Pizza salad with chicken and rice...*
> *Ante: ((Frustrated)) But… we were supposed to have something healthy.*
>
> *(Coastal Village School, 9:1)*

In this exchange, Julia used the cultural Discourse to question the choice of pizza salad as a side dish for chicken and rice. Ante defended his and Urban's choice by referring to the assignment that had apparently required them to pick something 'healthy'.

In other cases, the assignment demanded that students include specific nutrients in a meal. When Amy and Anna-Karin in 9:2 tried to compensate for the loss of calcium in a diet without dairy products, vegetables that did not provide calcium were not viewed as relevant.

> *Anna-Karin: Shouldn't we have some salad or something to be healthy?*
> *Amy: Yeah. Like carrots an' some…*
> *Anna-Karin: Carrots... we could've had that, but yeah, okay.*
> *Amy: But there's no calcium in carrots.*
>
> *(Leafy Suburb School, 9:2)*

Thus even though carrots were seen as generally healthy, they were unsuited for the assignment because they did not contain enough calcium. This illustrated how an opportunity to use a vegetable could be lost due to a strong focus on specific nutrients.

In contrast with the 'container for nutrients' aspect of the health Discourse, vegetables could also be seen as empty and nutritionally useless. When forced to plan a vegetarian meal, Anders in 8:3 argued that vegetables were not nutritious.

> *Anders: We're made of meat, so why should we eat vegetables?*
> *Teacher Birgitta: ((Laughs)) But you can do it once, right?*
> *Anders: Is it vegetables you eat to… survive? No, it's not. It's meat.*
> *(Green Forest School, 8:3)*

Using the health Discourse to construct vegetables as unhealthy in this way was not common, but it may have been implicit in their optional status in the cultural Discourse (above).

The evaluation Discourse: is it required for a passing grade?

The evaluation Discourse referred to school assignments and grades criteria and involved being a 'good student'. It was often used in tandem with the health Discourse to guide student behaviour, and vegetables were seen as right or wrong in relation to a specific assignment. The evaluation Discourse trumped both the cultural and sensory Discourses, as illustrated by Amy in 9:2 who cooked a potato pancake with spinach even though she did not like it.

> *Amy: And we're having spinach in ours.*
> *Paula: Why?*
> *Amy: Because we have to have calcium, because this girl [in the assignment] wants calcium.*
> *(Leafy Suburb School, 9:2)*

In this case, the choice to use a certain vegetable because of its nutritional content made the evaluation Discourse almost inseparable from the health Discourse, but other times, evaluation stood alone. When Lars, Anders and Per in 8:3 had trouble finishing a carrot soup they had made, teacher Birgitta urged them on by referring to an 'eating up' ethos that was tied to the evaluation Discourse.

> *Teacher Birgitta: Go on, eat it.*
> *Per: D'you have to eat it up?*
> *Teacher Birgitta: Yeah, you have to eat it up.*
> *Lars: Yeah, you have to eat it up.*
> *Teacher Birgitta: It's good for your grades, you know.*
> *Per: ((Eagerly)) Is it?*
> *Teacher Birgitta: Mm…*
> *Per: Well, in that case I'll eat it.*
> *Lars: Yeah, eat, dammit.*

Teacher Birgitta: ((Laughs softly)) No, but you're supposed to show that you can…
Lars: That you can eat it, that's like…
Teacher Birgitta: That you like the f… that you like vegetarian food. (…)
Anders: D'you have to like the food to get a grade?
Teacher Birgitta: Have to sho… you sho… y sh… just show… You can show that you eat… eat vegetarian food too.
(Green Forest School, 8:3)

Although Birgitta was generally lenient towards students who did not want specific vegetables, in this case she came across as more demanding. This might have had to do with the fact that the recipe was brought from home by Lars, thus making the dish more personal and the rejecting of it potentially hurtful. During the exchange, Birgitta used a lot of disrupted speech and laughter, thus perhaps signalling that the reference to grades was a joke. However, she generally tended to avoid conflict and used laughter to dissipate tension, so it might also have been a legitimate attempt to steer student behaviour with the help of the evaluation Discourse.

Study 2: Meat

Seventeen of the 26 studied lessons involved cooking with meat (see Table 3), but talk about meat also occurred during other lessons. Two Discourses emerged from the analysis, one that focused on the *centrality* of meat, and one that saw it as a *threat*. Centrality was maintained with the help of health, sensory, cultural, and social aspects, and meat was seen as the centrepiece around which everything else revolved. In contrast, the threat Discourse saw meat as dangerous, and was maintained by health and sensory aspects. The psychological phenomenon of guilt only occurred a very few times, and was interpreted as an aspect of health since it can be said to impact well-being, albeit not very strongly.

Meat is central

In the centrality Discourse, meat was seen as central from a nutritional (health), sensory, cultural, and social viewpoint. All the hot meals that students made included meat unless they were required to cook something vegetarian or they made pancakes.

Nutrition (health)

Meat was seen as a 'real' food that helped the body survive and perform. Its protein content was emphasized and connected to muscles and strength. In

the following, teacher Olivia in 7 had a run-through about macronutrients and asked the students about protein.

> *Teacher Olivia: In what foods do you find protein?*
> *Ingrid: Meat.*
> *Teacher Olivia: Meat, yes. ((Writes on the board)) And fish and eggs. ((Writes on the board)) And what do the proteins do, then? What is their most important task in the body? (…) To build muscle. ((Writes on the board))*
>
> *(Sea Town School, 7)*

This run-through was typical of the whole data set. Every time protein was discussed, meat was always mentioned first, although plant sources were added in some cases. However, even when pulses and lentils were promoted as healthy alternatives to meat, they were still seen as nutritionally deficient. Because of this, cutting out meat from the diet required careful planning.

Taste (sensory)

Meat was also seen as central to taste. In the following, Anders, Per, and Lars were looking for a vegetarian recipe in the HCS textbook.

> *Anders: Vegetarian lasagne.*
> *Per: ((sceptical)) What's that, then?*
> *Anders: Lasagne is good, but 'vegetarian' doesn't sound good. ((Laughs))*
> *Per: There's no meat in it.*
>
> *(Green Forest School, 8:3)*

Meat was constructed as central to the lasagne, and by taking it away, the dish would be ruined.

Culture

Red meat had the highest status as the centre of a meal, but fish or poultry was also accepted. The meat could also be a side dish, but even so it was essential. When teacher Edith in 9:2 had the students cook potato pancakes with no bacon, Dina reacted negatively.

> *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 tasty.*
>
> *(Leafy Suburb School, 9:2)*

Although the cultural tradition of having bacon with potato pancakes was clearly tied to its sensory properties, Dina argued for it using words like 'usually', thus marking that it was tradition and not only her personal taste. Edith confirmed this by trying to explain that they would make an exception during this one HCS lesson, which marked meat-free food as out of the ordinary and tied to school assignments rather than to pleasure.

Social relationships

The centrality of meat made it important for social relationships. For example, when Cecilia was done skinning a chicken, she gifted the skin and some leftover meat to the boys in the neighbouring kitchen unit.

> *Cecilia: ((to Josefine)) 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 tasty.*
>
> *(Green Forest School, 8:3)*

Through rituals like this one, students could bond and build relationships with the help of meat.

Meat is threatening

A negative Discourse on meat emerged as well, but it was not strong enough to challenge centrality, and did not noticeably affect consumption among meat-eaters. In this Discourse, meat was threatening from the point of view of physical health (danger), sensory aspects (disgust), and psychological health (guilt).

Danger (physical health)

Since meat contained bacteria, students had to make sure that it was cooked through. Teacher Olivia in 7 was very adamant about frying the minced meat until it was completely brown, and some students were quite concerned about the danger of uncooked chicken.

> *Tuva: Do you want to taste [it] like this [directly from the pan]?*
> *Stella: Yeah, but is the chicken done?*
> *Tuva: Yes, it is.*
> *Stella: Are you quite sure about that?*

Tuva: ((On an in-breath)) Yup, I am. Wait ( )…
Stella: You've cut it, right [to see if it was cooked through]?
Tuva: ((Impatiently)) Yes. It was nice and white.
(Central City School, 9:3)

As for nutrition, 9:2 was the only group that discussed consuming too much protein, and even then, the students used extreme examples of body-building to reaffirm its importance.

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.
(Leafy Suburb School, 9:2)

In this way, the centrality of meat was re-established, even though the discussion ended with teacher Edith pointing out that not even body-builders needed additional protein.

Disgust (sensory)

Students preferred meat to be pure muscle, clean, cooked, and with no resemblance to the original animal. For example, minced meat did not elicit disgust, but whole chickens, 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 meat products, but expressed no trouble eating them. In the following, Cecilia was reluctantly deboning a whole chicken and talking about how disgusting it felt.

Cecilia: 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!
(Green Forest School, 8:3)

In this case, Cecilia was disgusted by parts of the chicken that she did not know what it was, like tendons, and by the resemblance of the carcass to the live animal. Her disgust also showed in the way she tried to debone the chicken using only her fingertips.

Guilt (psychological health)

A few female students briefly expressed guilt about eating meat because of animal welfare, but this was not enough to stop them.

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

Here and elsewhere, students used 'I' formulations when they talked about their moral scruples, and more objective phrases to explain why they still ate meat. This may have been a way to direct attention away from their personal responsibility.

Study 3: Vegetarian food

Five of the 26 studied lessons involved cooking vegetarian food (see Table 3). Three overlapping Discourses were created: *absence of meat*, *deviance*, and *unattainable ideal*. The absence Discourse was supported by sensory, cultural, and nutritional (health) aspects and saw vegetarian food as empty. The deviance Discourse had a social focus and referred to deviant food, deviant lifestyles, and deviant people. The unattainable ideal Discourse involved sacrifice, obedience, and social confrontations, and was maintained by sensory, cultural, health, and social aspects.

The absence of meat

Vegetarian food was viewed as empty because it did not contain meat. It often attracted negative attention.

The sensory absence

One reason for the negative view of vegetarian food was the absence of taste. When Anders, Per, and Lars in 8:3 planned a vegetarian meal, Anders was so dismayed that he did not want to cook anything at all.

> *Anders: This is worthless.*
> *Per: I think we should make the pasta gratin.*
> *Lars: I think…*
> *Anders: I think we should diet.*
>
> *(Green Forest School, 8:3)*

By proposing that they 'diet', Anders marked that no food at all was preferable to vegetarian food. Even though he later said that he liked pea soup and

tomato soup, the term 'vegetarian' put him off. The only meat-free dish that students wanted to cook was pancakes, but teacher Birgitta disapproved because she wanted them to make 'real' vegetarian food – perhaps meaning dishes based on vegetables.

The cultural absence

Vegetarian food was not explicitly based on a particular ingredient, and this made the absence of meat conspicuous. In the following, teacher Birgitta informed 8:3 that they had to plan a vegetarian meal for the next lesson.

> *Teacher Birgitta: Next time it'll be something vegetarian… that you're going to choose.*
> *Per: ((moans)) No…*
> *Teacher Birgitta: Oh yes, we're going to do it. Have to do that too.*
> *Lars: Oh yes… Meat soup! ((Laughs))*
> *Alex: Yeah, then we… then we can make something, um… when are we… can't we make something vegan, too, sometime?*
> *Teacher Birgitta: ((Laughs))*
> *Per: Like meatballs, um…*
> *Lars: ((Laughs)) Yeah-ha-ha, meatballs!*
> *Per: Um…*
> *Lars: Bacon sausage. ((Laughs))*
> *(…)*
> *Josefine: Meat… I'd never survive without meat. Think about tacos.*
> *Cecilia: But of course you'd survive without, but it wou… it's… boring.*
> *Lars: Think about going without pork tenderloin…*
> *(Green Forest School, 8:3)*

Here the teacher used vague vocabulary – 'something vegetarian' – which prompted Lars and Per to start suggesting meat dishes, and the girls next to them to imagine life without meat. Only Alex welcomed the vegetarian theme, but he still had trouble finding recipes. Since the theme was defined by the absence of meat, students had to look through the whole list of ingredients to see if a recipe was vegetarian.

The nutritional absence (health)

Because of the absence of meat, vegetarian food was seen as nutritionally empty. In 8:4, a couple of boys even compared vegan food to non-foods like 'wood' and 'bark'. In 9:3, Agnes marinated tomatoes as a vegetarian version of chicken, to which the vegetarian reacted negatively.

Ronja: But if you make it with tomatoes, there's no… ((doubtful)) food in it.
Agnes: You know, there'll be rice too.
Ronja: Yeah, but… yeah b[ut]…
Rebecka: That sounds strange. Marinated tomatoes.
Agnes: But you know, there'll be a salad…
Ronja: I'm jus… I'm just saying, I'm just saying it for your sake, because she [the teacher] might say that there's no protein in it, because there isn't.
(Central City School, 9:3)

In this exchange, protein was equated with 'food' and its absence tied to teacher disapproval.

Here and elsewhere, the perceived emptiness of vegetarian food could also be manifested in an actual absence of nutrient-dense vegetables like pulses. For example, when Olivia had her students in 7 make a vegetarian pasta gratin, the only vegetable in it was a small amount of onion. Thus the vegetarian epithet simply meant the absence of meat, not the presence of anything else.

Deviance

In the deviance Discourse, vegetarian food was perceived as different, and people who ate it required special treatment. Students made a special dish for any vegetarian in the group.

Nicole: ((while presenting their meal)) And a little, um… ((laughter in her voice)) Quorn variety for Ronja. ((Laughs))
Miranda: Mm. So don't take from that one.
(City Centre School, 9:3)

This showed that only vegetarians were expected or even allowed to eat meat-free food. There was no such special treatment of students who wished to avoid a specific food other than meat.

Vegetarian food was tied to a certain lifestyle, and also to practical obstacles, as illustrated by the following exchange.

Ingrid: She [a vegetarian student] is on one of those special diets, then?
Teacher Olivia: Yes. But then you have to have a certificate from a doctor and things like that. (…) No, but to be allowed to eat that food in the lunch canteen, you have to have a medical certificate. Or from the school nurse, or something like that.
(Sea Town School, 7)

Here, deviance was marked by distancing words and phrases like 'one of those' and 'things like that'. Through the mention of a medical certificate, vegetarianism was even indirectly linked to sickness.

The unattainable ideal

In the unattainable ideal Discourse, vegetarian food was a health, ethical, and environmental ideal, but it was impossible to live up to. It entailed obeying a set of rules, which prompted Amy to compare it to religion.

> *Amy: It's too much work to be a vegetarian, that's the problem. (…) I'd love to… It's like my dad's mate, his grandpa, um, was a Jew. And, um, yeah but look, and then like… 'Isn't it hard to keep it kosher and stuff?' 'Yeah, well I only ever eat, um, kosher. ((Dramatic pause)) Except for bacon. Because it's so tasty!' ((Fellow students laugh))*
>
> *(Leafy Suburb School, 9:2)*

This joke worked because like religion, vegetarianism was a moral choice, and breaking its rules was as laughable as breaking a religious rule.

Study 4: Sweet foods

Of the 26 studied lessons, five involved making something sweet (see Table 3). In group 9:3 and 8:3, some students made or used jam, 5:1 and 7 made red groats (a common snack in Sweden, made from fruit syrup or berries, water, and starch), and 5:2 made cookies and a Swiss roll. During the rest of the studied lessons, planning of or general talk about sweet foods could occur, but there was a clear emphasis on sweet foods in grade 5 compared to the other groups.

Four Discourses were created: *the coveted treasure*, *danger and disgust*, *the superiority of the homemade*, and *the unnecessary extra*. The treasure Discourse viewed sweet foods as desirable and was maintained by sensory and social aspects, while the danger and disgust Discourse was supported by sensory and health aspects and could be socially risky. The homemade Discourse, which valued homemade sweet foods higher than store-bought varieties, rested on sensory and health aspects. The unnecessary extra Discourse viewed sweet foods as less 'real' than other foods, based on culture and health.

The coveted treasure (sensory, social)

In the treasure Discourse, sweet foods were desirable. Students wanted large amounts, reacted with yearning to sweet smells that lingered from other lessons, and expressed jealousy if someone got something they did not. They talked a lot about how much there was of a sweet food and how to divide it fairly. In the following, Nina was cutting up newly baked cookies for her kitchen unit group.

> *Beatrice: You have to make them the same size. Nina, you have to make them the same size, too.*
> *Adele: Yes, but you don't have to be that meticulous. Just do it. (…) But not that thin, not that thin!*
> *Beatrice: Nina, they shouldn't be thin.*
> *(Green Forest School, 5:2)*

In this instance, the cookies had to be the right size both because they tasted better that way, and to make sure that everyone in the group got their fair share. Ownership was important, not only because students wanted the sweet food for themselves, but also because it could be exchanged for a sweet food made by someone else or given away as a gift.

The treasure Discourse had relationship building properties, both between teacher and students and among the students themselves. Anytime a teacher proposed making a sweet food – with the exception of red groats in 7 – the students responded with enthusiasm. Sweet foods were often the focus for student bonding and sharing, but sometimes the fear of not getting a 'perfect result' created conflict instead, as when Stina and Angelica debated the amount of time their cookies should bake in the oven.

> *Stina: They're getting more and more disgusting! I want them burnt, and Angelica's having them so soooft!*
> *Angelica: No!*
> *Stina: I hate when they're soft, it's so disgusting!*
> *(Green Forest School, 5:2)*

Since Stina and Angelica used the same baking tray, they tried to agree on the perfect level of crispiness, but in the end, Angelica removed her cookies from the tray and Stina let hers bake for longer. Despite this solution, tension spread through the whole group and lingered for the rest of the lesson. The teacher pointed out that different people like different kinds of cookies, but this did not help much.

Danger and disgust (sensory, health, social)

In this more negative Discourse, sweet foods were regarded as dangerous and/or disgusting. Because of this, making a sweet food meant partly breaking the rules on proper amounts and times for eating. Still, a vague limit remained that students could push and teachers gently enforce.

> *Mattias: Can we add a little sugar [to the red groats]?*
> *Teacher Birgitta: Is it sour, or what?*
> *Mattias: ((softly)) Yeah…*
> *Student assistant: ((Laughs))*
> *Ove: ((laughs quietly))*
> *Teacher Birgitta: Yeah, there's a packet of sugar over there. Go ahead.*
> *Mattias: Yeah.*
> *Teacher Birgitta: Not too much, though.*
> *Mattias: No.*
> *Ove: ((Jokingly)) And then you drop half of it [the sugar packet].*
>
> *(Green Forest School, 5:1)*

Here the teacher maintained her good relationship with the students by acknowledging the treasure status of sugar, but also marked her authority by hinting at the rules of the danger/disgust Discourse. Mattias showed awareness of the Discourse by emphasizing the word 'little', and Ove joked about accidentally adding too much.

Sweet foods could also be disgusting if portions were deemed too large, if a student did not like a particular ingredient, or if a sweet food was consumed in the wrong context, as when Nina in 5:1 licked a drop of treacle from her hand. They could also be disgusting if two food items were not viewed as compatible, such as pancakes and chocolate sauce, or if an ingredient was prepared the wrong way, such as too-large strawberry pieces. Another potential problem was consistency, as when group 7 made red groats.

> *Irmeli: You… you can have mine, I hate this. (…) No, red groats isn't my kind of… (…) No, I hate red groats. It's so bloody disgusting. It's like… slime.*
>
> *(Sea Town School, 7)*

Irmeli repeatedly refused to eat by referring to the 'slimy' consistency.

The superiority of the homemade (sensory, health)

In this fairly small Discourse, homemade sweet foods were viewed as superior to store-bought varieties.

Dina: I don't like store-bought jam. It's not as tasty, and there's just a lot of sugar in it.

(Leafy Suburb School, 9:2)

For Dina, the superiority of homemade jam was explicitly tied to the amount of sugar, which may also have had to do with the danger/disgust Discourse. During other lessons, cakes and berries were also said to taste better when they were homemade or home-grown.

The Discourse could be challenged, however. A few students in 7 questioned why they had to make red groats.

Teacher Olivia: Perhaps many of you buy those prefab varieties at…
Ivan: Many of us? Most people make… [corrects himself] buy red groats.
Inez: ((ironic)) I make it every day.

(Sea Town School, 7)

Here Ivan pointed out that store-bought red groats were the norm for 'most people', and Inez made fun of the notion that someone would make their own. Despite this brief challenge, the students accepted the assignment. However, the teacher provided prefabricated fruit syrup as a basis for the dish instead of fresh berries, even though the lesson also focused on the importance of complex carbohydrates. Therefore the red groats could be seen as only half homemade.

The unnecessary extra (cultural, health)

In this Discourse, sweet foods were clearly demarcated from and considered less important than 'proper' food. Rules about correct times for eating sweet foods were sometimes used to mark their inferior importance.

Nina: Can we take some [cookies] home? No…
Teacher Birgitta: That depends on how much you eat here. A bag is possible to… You can't eat all of them.
Nina: I'm going to taste the dough. ((Ominously)) Ha ha ha ha…
Teacher Birgitta: You're going to go eat f… lunch first, right?

(Green Forest School, 5:2)

Here the cookies were constructed as something you should not eat too much of, especially not before a proper meal.

Summary

As mentioned above, the Discourses about meat, vegetarian food, and sweet foods could be subsumed in the Discourses created for vegetables in the first study. For example, the cultural aspect of the centrality of meat would fit into the cultural Discourse. To summarize the four studies and make the foods easier to discuss in relation to each other, I will here rearrange the results to form five Discourses which manifested in different ways depending on the food. I will present the Discourses in two broad groups where the sensory, cultural, and social Discourses represent 'normality', and the health and evaluation Discourses represent 'responsibility' (see Table 4). This division foregrounds how the sensory, cultural, and social Discourses dictate how people in a specific social group and context should eat, and that the health and evaluation Discourses are based on more rational, scientific, and state-controlled aspects of behaviour.

The Discourses of 'normality'

The sensory, cultural, and social Discourses were common in the data and guided participants in the 'normal' way to eat. For example, the centrality of meat, the optional status of many vegetables, the deviance and emptiness of vegetarian food, and the treasure status of sweet foods were very strong.

The 'done thing' was to choose food based on the *sensory* Discourse. All foods could be constructed as both tasty and disgusting, although vegetarian food was not often talked about in positive terms. Instead it was often constructed as lacking taste. Vegetables could be enjoyed, especially olives, mushrooms, and avocado, but they were sometimes the one part of a dish that students did not want to eat. In general, pulses and lentils were not much liked by anyone, whether because of how they looked, how they smelled, or their mealy consistency. In contrast, meat and sweet foods were often liked, but could also be constructed as disgusting based on things like consistency, smell, amount, and resemblance to an animal.

Table 4. Summary of the Discourses on vegetables, meat, vegetarian food, and sweet foods, divided into two overarching groups named Normality and Responsibility.

	Discourses of normality			**Discourses of responsibility**	
Vegetables	*Sensory* Discourse: pleasure/disgust	*Cultural* Discourse: mandatory/optional	-	*Health* Discourse: fibre and nutrients/nothing at all	*Evaluation* Discourse: required for a passing grade?
Meat	*Sensory* centrality: taste *Sensory* threat: disgust	*Cultural* centrality: centrepiece	*Social* centrality: social relationships	*Health* centrality: nutrition *Health* threat: nutrition, guilt	-
Vegetarian food	*Sensory* absence: tasteless *Sensory* aspects of the unattainable ideal: meat is too good to cut out	*Cultural* absence: missing components of meals *Cultural* deviance: deviant lifestyle *Culturally* unattainable ideal: system of unbreakable rules	*Social* aspects of absence: extra work for others *Social* deviance: the deviant person *Socially* unattainable ideal: social confrontations	*Health* absence: nutrition *Health* aspects of the unattainable ideal: needing to compensate for the absence of meat	(*Evaluation* aspects of deviance: school assignments the only reason for it)
Sweet foods	*Sensory* treasure: desirable *Sensory* disgust: too much, bad consistency, wrong context *Sensory* superiority of the homemade: tastes better	*Cultural* aspects of the unnecessary extra: 'roped off' as desserts or snacks	*Social* treasure: marking relationships *Social* danger: being left out	*Health* danger: illness, weight gain *Health* superiority of the homemade: less sugar *Health* aspects of the unnecessary extra: not a 'real' food	-

In the *cultural* Discourse, meat was central, while vegetables were either a part of the recipe or a side dish. Because of this, vegetables were optional unless they belonged to a specific recipe or tradition, while meat was mandatory unless a specific assignment required students to make vegetarian food. The only exception to this was pancakes, which never elicited objections based on the absence of meat. In all other cases, vegetarian food was reserved for vegetarians or for specific HCS lessons that deviated from normal cooking. Certain foods went together, like tomato sauce and ham on pizza (Green Forest School, 5:1, 5:2), or potato pancakes and bacon (Leafy Suburb School, 9:2). Others did not 'fit', for example cabbage and beans did not make a prototypical salad (Leafy Suburb School, 9:2), and pizza salad did not go well with chicken and rice but was included to make the meal 'healthy' (Coastal Village School, 9:1). A limited amount of sweet foods could be eaten in between meals.

In the *social* Discourse, meat and sweet foods were a social glue, but they could also be used to exclude people by selectively distributing things like leftover chicken skin and cookies. As for vegetables and vegetarian food, participants either distanced themselves from or identified with them. Especially vegetarianism could be socially difficult, because it forced other people – fellow students or the school canteen staff – to cook a special dish for a few individuals. Therefore the decision to become a vegetarian required a lot of planning.

At the centre of all the Discourses of normality was meat. Participants typically asked "Are *all of you* having ham?" whereas in the study on vegetables, a common type of question was "Is *anyone* having mushrooms?" (Italics added for emphasis). Thus everyone was expected to eat meat, while vegetables and vegetarian food were more subject to choice. For example, ham was essential on pizza. Despite being an expensive food, it was offered in such large amounts that there were leftovers. In contrast, there was only one small can of mushrooms, one pepper, and one tomato, and teacher Birgitta expected the students to choose just one of the offered vegetables. The centrality of ham was also illustrated by the following exchange, where Elmer and Tomas in 5:2 made a pizza for a friend who had a dentist's appointment.

> *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.*
> *(Green Forest School, 5:2)*

Here, even though Elmer stopped to wonder what their friend wanted, Tomas countered with the obvious 'truth' that everyone would like ham on their pizza. Since commercial Swedish pizzas often include ham, this may also have had to do with culture.

Another sign that meat was central was that dishes were named after it, such as sausage casserole rather than carrot casserole, even though the casserole contained both these ingredients. Compare this with vegetables, which were often preceded by the word 'with' to signal that they were side dishes rather than central. Meat could also be a side dish, but whereas students questioned the absence of for example bacon with potato pancakes (Leafy Suburb School, 9:2), vegetables as side dishes were easily omitted from a meal. Because of meat's centrality, there also had to be a certain amount of it. A couple of times, students jokingly referred to peers who ate too little meat or a lot of vegetables as 'vegetarians'. One example was when Lisa in 5:1 used one slice of ham instead of two in her sandwich roll. Thus meat was so central that when someone ate less of it than others, it made them conspicuous and open to questioning and ridicule.

This was connected to the deviance of the vegetarian identity. Even when participants tried to promote vegetarian food, they ended up reproducing its deviance. For example, when teacher Olivia in 7 had her students cook a vegetarian pasta gratin, she made sure to point this out, perhaps hoping that they would realize that they had liked it *despite* the fact that it was vegetarian.

> *Teacher Olivia: What did you think of the food? (…) Do you know what you've eaten now? Vegetarian food. We've made a vegetarian dish, you see.*
>
> *(Sea Town School, 7)*

Thus even as Olivia tried to challenge preconceptions about vegetarian food, she re-established its deviance.

There was more acceptance of vegetarian food in the Central City School (9:3) than in the other schools, which might be explained by the fact that these students were all female, came from an affluent area in a large town, and had a middle class, academic background. It could also have to do with the town's history of veganism. But even here there was a limit to how much work students could be expected to put in when they made a vegetarian version of a dish, and no one but the vegetarian ate of it.

Another aspect of normality were the rigid boundaries between main dishes and desserts or snacks. Sweet foods were meant to occupy a specific, inferior

place in relation to the main meals of the day, or to be cut out of the diet completely. Some students constructed sweet foods and meat as opposites, with the epithet 'real food' reserved for the meat. Despite this, sweet foods were also a coveted treasure. Indeed, both meat and sweet foods were viewed as both desirable and disgusting in a conflicted way that did not apply to vegetables or vegetarian food. Students either liked or disliked a vegetable or vegetarian dish, and there was none of the vacillating between disgust and desire that was so typical of meat and sweet foods.

Because of their high status, meat and sweet foods were central to relationships. They were valuable gifts and could be used to mark hierarchies. When students made a pastry or dessert, they could trade it or distribute it as a gift, and leftover meat could be used to bond between kitchen units. Unfortunately, pre-existing power relations governed these rituals, and some students who tended to be marginalised by their peers were afraid 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.*
> *(Green Forest School, 5:2)*

In the same way, sweet foods could also be withheld. Bad relationships could even diminish the trading value of sweet foods, since Nina was denied cookies from her own kitchen unit group even though she had given the others some of hers. It was unclear whether Nina was not given cookies from her group members because they begrudged her the same amount as them, or because the actual cookies were devalued when she owned them.

In contrast with the high status of sweet foods and meat, vegetables were often thrown away. In 5:2, Beatrice threw away a sliced tomato even though teacher Birgitta told her to give it to another kitchen unit group. Similarly, Igor in grade 7 threw away a whole onion that his kitchen unit group did not use, Ylva and Dina in 9:2 threw away carrots that neither of them wanted, and Anders and Per in 8:3 threw away the leftover leek and carrots from their chicken soup.

The Discourses of responsibility

The *health* Discourse had to do with getting the right amount of the right nutrients. Vegetables were often healthy, but could also be viewed as empty of nutrients, a view that was mirrored in the way vegetarian food was seen as an

absence that needed to be compensated for. Meat was healthy mainly because of its protein content, but that was also what could make it dangerous. Since meat was both dangerous and central, the health Discourse could become conflicted if both aspects were brought up at the same time. Similarly, vegetarian food was both an ideal and a dangerous absence. It posed a passive kind of threat, since the eater was in danger of not getting what they needed. Thus vegetables and vegetarian food were dangerous because of what they lacked, while meat and sweet foods were dangerous because there was too much of something – protein, fat, or simple carbohydrates. However, the threat of too much protein was not powerful enough to challenge the positive health aspects of meat, such as its content of essential amino acids. Similarly, the health properties of vegetarian food were not enough to motivate becoming a vegetarian, and the dangers of sweet foods were not enough to keep students from eating them.

For vegetables, the health Discourse was sporadically powerful in tandem with the *evaluation* Discourse, which concerned grades and assessment. However, the healthiness of vegetables could be subtly undermined by the use of irony, hedging or an affected voice.

> *Dina: But Ylva, fibre ((affected voice)) it's* good *for you.*
> *(Leafy Suburb School, 9:2)*

In this way, students could construct vegetables as healthy even as they questioned the Discourse through the way they said it. This did not happen with meat. Instead the health Discourse was used to defend meat consumption.

Health could also be used to police students' intake of sweet foods, especially granulated sugar. For example, Mattias and Ove commented on how much sugar Lisa added to her red groats.

> *Mattias: You're like total sugar adduc… sugar addicts. Lisa, you're a sugar addict. (…) Oh my God, what a lot of sugar you've taken.*
> *Ove: You're going to get diabetes.*
> *Mattias: Yeah.*
> *(Green Forest School, 5:1)*

In this case, medical aspects of the danger/disgust Discourse were used to police Lisa's intake. This made sweet foods stand out in the data: the negative aspects of simple carbohydrates provided participants with a 'weapon' to denigrate others, whereas the health impact of vegetables, meat, and vegetarian food was never used this way. The only instance where students discussed the health hazards of eating too much protein, or acknowledged that

vegetarian food was healthy, they used the pronoun 'we' to indicate shared guilt, and the healthiness of vegetables was only discussed in general terms. In contrast, students who commented on amounts of sugar used 'you' or 'he/she/they' to single out and distance themselves from the unhealthiness of eating too much. Thus sweet foods were the only area where the health Discourse was really powerful on its own.

In the next chapter, I will relate the Discourses of normality and responsibility to my chosen theories of learning, food choice, and critical literacy, and discuss both how they may impact physical and psychosocial health if left unchallenged, and how they can be questioned and transformed.

5. Discussion

The most important finding in my studies on vegetables, meat, vegetarian food, and sweet foods in HCS was the potential clash between normality and responsibility. Sensory preferences, culture, and social rituals were powerful determinants of food choice, opinions, and behaviour, but these were sometimes met by the requirement that students learn about and apply aspects of physical health for the sake of evaluation. Based on word count and power in negotiations, the Discourses of normality were often dominant, but on a societal level, the Discourses of responsibility offer many privileges in the form of tools to enhance one's physical health. In the way of powerful Discourses, both the Discourses of normality and those of responsibility categorize people into good, obedient subjects and bad, disobedient ones (Janks, 2010), and it can be difficult to be 'good' both from a normality and a responsibility perspective. In this chapter, I will therefore deconstruct the Discourses of normality and responsibility by questioning how they became so powerful, revealing whom they serve, and allowing alternative Discourses to confront and hopefully transform them. Since the discussion will be complex, I hope to aid the reader by recapitulating the three levels of food literacy that inform this dissertation:

1) The *cognitive* level, where the individual processes information and acknowledges that there are taken-for-granted truths about normality (social norms that govern how different people should eat) and responsibility (generalizing health claims). What happens at this level is illustrated by the model of learning created by Illeris (2007, Figure 1). According to this model, the student encounters the information through interaction with both the local environment and society at large, and then processes the content internally, a step which is facilitated or hindered by pre-existing mental schemata and incentive.

2) The *practical* level, where the individual applies the sometimes conflicting information of the first level both in verbal reasoning and in cooking. To understand this level, we can draw on the culinary Venn diagram of competing influences (Figure 3) based on Belasco's (2008, Figure 2) model of food choice. Thus the theoretical information of the first level now confronts the complexities of a real life food situation in the HCS classroom, where identity, responsibility, and convenience all compete for influence. This level is at least indirectly tied to the access dimension of Janks's (2010) model of critical literacy, since access to powerful knowledge presupposes the ability to apply it.

3) The *critical level*, where the individual challenges taken-for-granted truths to make informed choices based on both physical and psychosocial health aspects. This level is illustrated by the adapted model of critical food literacy based on Janks (2010).

As mentioned before, this division is an oversimplification, since all three levels are suffused by the critical eye of Janks's model, learning can occur on the critical level when truths are challenged, and Illeris's (2007) view of content includes reflexiveness, which means relating new information and experiences to one's identity, but the division will hopefully facilitate the discussion. To further aid the reader, I will continue using the categorization *Discourses of normality* (sensory, cultural, and social) and *responsibility* (health and evaluation) set out in Table 4, but also use specific terminology from the individual studies, such as *centrality* from the study on meat and *deviance* from the study on vegetarian food. I will use the four dimensions in Janks's (2010) model of critical literacy as a basis for headings: under *The power of normality* and *The power of societal authority* I will question the ideologies inherent in the Discourses of normality and responsibility. Under *Access to normality* and *Access to responsibility* I will discuss how these Discourses aid or hinder individuals in their practical application of knowledge about food and health, both physical and psychosocial. Under *Diversity* I will give examples of diverse food traditions that can be used as a resource to challenge the dominant Discourses, and under *The design problem* I will suggest alternative forms of teaching that might challenge and transform the currently powerful Discourses.

The power of normality: Deconstructing the sensory, cultural, and social Discourses

In the data, there was a 'normal' way to eat that made any deviance conspicuous. Such unwritten food rules arise from ideas about the proper meal, which is expected to include certain components in a falling order of importance (Charles & Kerr, 1986; Douglas, 1972). A Swedish proper meal tends to put meat at the centre, with vegetables as a sporadic side dish (Ekström, 1990; Holm, 2003). In contrast, sweet foods exist outside of this normative plate in the form of desserts or snacks. This ideal was evident in the relatively consistent promotion of meat as the centre around which everything else revolved, in the offhand way participants referred to optional foods like lettuce and carrots, and the 'unnecessary' status of sweet foods. In all hot meals that were not explicitly required to be vegetarian, foods like ham, chicken, and minced meat were taken for granted, which mirrors the historically important position of meat as a nave for human societies (Fiddes, 2004; Leroy & Praet, 2015). Chicken and minced meat are even part of a

specific HCS cuisine (Höijer, 2013), despite being relatively expensive foods. Because of this, meat-eaters were validated by the Discourses of normality, while those who were vegetarians, and in some cases those who liked vegetables or ate less meat than others, were deviant. Sweet foods could be a part of normality through their status as treasures, but only to a certain point, beyond which they were connected to illness, obesity, and disgust.

This view of normality guided both food choice and reasoning around food and health in HCS. Related to Belasco's (2008) model of food choice, it was the identity aspect that governed classroom activities, namely personal preference, family traditions, culture, and so on. On the surface, students exercised their free will to choose what to cook and eat, a tendency that may be seen as a by-product of western individualism: since Sweden became an affluent country, many people can eat what they like and avoid less attractive foods. This has not always been so, and in poor households, people may still need to make do with what they can get. But with growing wealth, Sweden has latched onto a neoliberal trend that views each person as responsible for their own happiness and for building their 'brand' (Illeris, 2003a). Lifestyle choices are a part of this, since things like food can be used to show who you are or want to be as a person (de Garine, 2001). For young people who have been born into this culture of 'me projects' (Illeris, 2003a), freedom of choice is extremely important, but also potentially distressing because of the responsibility that comes with it. In this potentially traumatic situation, cultural rules come to the rescue (Fischler, 1988) and guide the individual in their constant assessment of different foods. Thus paradoxically, the culture of individual choice can lead to students favouring foods based on social norms rather than their own authentic preferences, although these two phenomena are so tightly intertwined that it is often difficult to draw a line between them, since early socialization largely determines food habits (Lupton, 1996). Therefore the 'freedom' to eat what you want is governed by its own set of rules. Even the choice to deviate, for example by becoming a vegan, can be based on community standards (Larsson, Rönnlund, Johansson, & Dahlgren, 2003).

Nonetheless, students seemed to value the opportunity to choose for themselves, and reacted negatively to any limitation of this freedom. Indeed, Swedish children are increasingly used to acting as gatekeepers in relation to the family meal, so it should come as no surprise that they might value freedom of choice in HCS as well (Janhonen, Benn, Fjellström, Mäkelä, & Palojoki, 2013; Olsen & Ruiz, 2008). It may be viewed as a privilege to choose what to eat relatively autonomously, but on the other hand, society expects its inhabitants to self-regulate their food intake to optimize their health (Bildtgård, 2002), and the 'wrong' choices can lead to lifestyle diseases.

Therefore the Discourses of normality can disadvantage groups that are encouraged to eat for example red meat, since this may impact their physical health in a negative way (Bernstein & Willett, 2011; McAfee et al., 2010). A classic example that shows how limited food choice can be positive is that the prevalence of coronary heart disease in Norway dropped during World War II, when food was scarce and people were more physically active (Ström & Jensen, 1951). Then again, we may ask ourselves how healthy people felt during the war, when not only food security was a pressing issue, but also social justice, jobs, and the very future of entire groups of people. This extreme example serves to illustrate the difficulty of balancing different aspects of health, when social concerns are infinitely more important to the individual than the state of their veins.

The power of societal authority: Deconstructing the health and evaluation Discourses

Despite the power of the Discourses of normality, the health Discourse is strong in Swedish society as a whole. It promotes a culture of science-based self-regulation (Bildtgård, 2002; Lupton, 1995) that obscures structural health inequalities (Mackenbach, 2012), and it can be tied to the responsibility aspect of Belasco's (2008) model of food choice. Specifically, the current scientific view of meat leans towards reducing amounts because of environmental, economic, and health concerns (Dagevos & Voordouw, 2013; McAfee et al., 2010), vegetables are seen as giving protection against many diseases (Boeing et al., 2012), vegetarian food has been found to have a positive impact on health (Craig, 2009; Larsson, 2001; Sanders, 1999), and simple carbohydrates are connected to a row of diseases (Basu et al., 2013; Moynihan & Kelly, 2014). This is the voice of the scientist, the moral compass according to which the nation's citizens are expected to steer their lives (Lupton, 1995). Powerful though the local Discourses of normality may be, then, the Discourses of responsibility can confront them in HCS, which is a school subject and therefore tied to state regulation and societal authority.

The potential conflict between taste/culture/social circumstances and health is an old one, and well documented in health research (Hammarström et al., 2014; Jallinoja et al., 2010; Jenkins & Horner, 2005; Shepherd et al., 2006; Stead et al., 2011; Stevenson et al., 2007), but in HCS, the dilemma is brought into even sharper relief by the school-specific evaluation Discourse. People may be judged on their food beliefs in other contexts too, and unhealthy choices can be regarded as less moral (Madden & Chamberlain, 2004; Vartanian et al., 2007), but actually getting a grade on your reasoning only happens in school. This may explain why health was only mentioned together with vegetables when evaluation was in play. The very act of basing meals on

nutrients is not very common outside of school, where aspects like the different preferences in a family are more important (Palojoki, 2003), and this brings us back to where we started: in the Discourses of normality. To make any difference at all, HCS has to challenge these, but the question is how. Since the ability to choose wisely is not innate but has to be learnt (Côté, 2006), HCS education should help students develop it. However, there is a lack of understanding of how choices are made and how to learn how to make them (Côté, 2006), and if not even researchers understand the mechanisms of choice, how should the HCS teacher know how to shape such education? Citing Mead (1928), Côté (2005) suggests that students must learn '*how* to think, not *what* to think' (p 12, italics added for emphasis).

This is a good description of empowerment, and the current Swedish national curriculum makes an attempt to promote such teaching. It stresses the importance of student influence and individuality, and the grades criteria in HCS are based on verbal reasoning around for example food and health. At the same time, it promotes a certain way of thinking, knowing and behaving, since students are expected to make informed choices from the perspectives of health, private economy, and sustainable development (National Agency for Education, 2011a). Therefore the freedom to choose based on sensory preferences is a limited freedom, and if a student chooses 'wrong' it may backfire. Incidentally, this tension between prescribed learning goals and a neoliberal view of students as independent and curious individuals who should be empowered is a problem in the whole of the national curriculum (National Agency for Education, 2011a). Even when there is some freedom of choice, the evaluative component is always implicitly present, since any didactic act is based on an assessment of students' skills and knowledge, and every pedagogic situation has an ultimate learning goal which controls the possible classroom Discourses (Bernstein, 2000). Thus the student influence that is promoted by the national curriculum can be taken to presuppose that with freedom of choice, students will still make the *right* choice.

In the data, the right choice had to do with picking the right vegetable, cooking vegetarian food as part of specific lesson themes, cutting down on the unhealthy or unnecessary, and eating up instead of throwing food away. Evidence suggests that many HCS teachers would agree with this. For example, Höijer (2013) has found a tendency among teachers to see the subject as a form of compensation for a deficient home. But there is an inherent dilemma in helping people build what may be seen as 'good' identities. As Côté (2006) argues, even though the end goal of health education is to give students tools for making responsible choices, it is based on a manipulation of identity that at least temporarily disempowers them. This makes for a paradox which is most acutely felt by students whose

backgrounds do not coincide with those promoted by the Discourses of responsibility. Because of this, there is a risk of grading students' cultures – or, in less dire cases, their ability to distance themselves from and reject them. We could maintain that some young people's food intake is unhealthy (Enghardt Barbieri et al., 2006), and that a normative approach is therefore justified, especially for students in rural areas with worse health (Lindroth, Lundqvist, Lilja, & Eliasson, 2014). However, such normativity risks tipping over into 'victim-blaming', since the concept of personal responsibility ignores the social norms that help create food behaviours in the first place (Oyserman et al., 2014). Moreover, any attempt to 'correct' deficient food habits may give rise to guilt and possibly defence mechanisms rather than learning (Illeris, 2003b). This seems counterproductive when the goal is to empower students.

Access to normality

Access to both normality and health was dependent on identity: who you were decided how much access you had to certain foods, and also how encouraged, discouraged or restricted you were vis-à-vis physical and psychosocial health, and whether a certain kind of behaviour was regarded as normal or not. I will begin by discussing access to normality from the point of view of vegetarians, vegetable-eaters, and teachers, and then move on to responsibility.

Vegetarians and 'vegetarians'

Vegetarians risked being othered because of their deviance from the norm (Browarnik, 2012; Fiddes, 2004). Vegetarian food was always constructed as something out of the ordinary that was only relevant within HCS as a specific theme or for a specific person. The reduction of meat was socially conspicuous, and may have been seen as a rejection of community values (Fiddes, 2004). Vegetarianism was even connected to illness rather than seen as part of a normal diet, and there was a condescending attitude towards vegetarianism, making it useful as a mild insult for students who ate less meat or more vegetables than others. Thus eating 'healthy' could be socially risky (cf Stead et al., 2011), which may be why some students distanced themselves from it with the help of irony.

But vegetarians could also be *positively* othered. Vegetarian food was seen as an ideal, even if it was unattainable, and the vegetarian identity was a powerful tool for avoiding certain foods, in the same way allergies or religions are. It should also be noted that some students may not want to be 'normal', and therefore see the vegetarian identity as a way of marking themselves off as different from, and perhaps even better than, their peers. Such underlying feelings of superiority and positive othering may explain the sometimes harsh

denigration of vegetarians (Cole & Morgan, 2011; Potts & Parry, 2010), but there were no such demonstrations in the data. Students rather went out of their way to make the vegetarian dish resemble the meat-based one in order not to other the vegetarians. Despite these efforts, they were ultimately left out, since no one else ate of the vegetarian dish.

Teachers

HCS teachers have access both to the privileged scientific health Discourse and to the evaluation one, and can use these to wield power over their students. However, most of them are women (Lindblom et al., 2013) and therefore in some ways societally marginalized. This means that their opinions may be regarded as less weighty, and nutritional advice as an attempt to "feminize people's diet" (Holm, 2003, p 6). Add to this that in recent years, Swedish schools have lost in status, so that teachers who were once respected authorities are now constantly questioned and criticized. Swedish education ideals have abandoned authoritarian types of teaching, requiring teachers to take more social responsibility and build mutually respectful relationships with students (Persson & Broman, 2002). One way of doing that is to let student preferences guide activities, a choice that can be defended with reference to the national curriculum's demands for student influence (National Agency for Education, 2011a) and ideals of empowerment. However, as discussed above, the HCS syllabus also contains advanced grades criteria, which means that teachers are faced with the dilemma of promoting the Discourses of responsibility even as their hands are tied by normality.

Moreover, no education is isolated from the culture(s) in which it takes place. National, local, and global traditions that have developed outside of school influence the lesson content, and the state-level socialization goals of the syllabus may clash with local ones. The teacher, who may or may not be a part of that culture, has to balance potentially contradictory Discourses in an effort to satisfy both the syllabus and local norms. Because of this, they do not necessarily have access to normality, but are forced to represent state learning goals to do with responsibility in a paradoxical subject that also rests on culture and commensality. This may be one reason why teachers had to use the evaluation Discourse to get students to cook with vegetables, or to refer to the deviance Discourse to explain the absence of meat. It illustrates how even an attempt to normalize diversity can involve unconscious reproduction of dominant Discourses (Janks, 2010), but it also shows that *not* doing so puts the individual at risk of social disapproval. This is also a big part of the problem of access to the Discourses of responsibility, to which we now turn.

Access to responsibility

The Discourses of normality combined to weaken the Discourses of responsibility and to promote freedom of choice. Despite this, I will now discuss the problem of access to the health and evaluation Discourses, since they are nonetheless societally powerful and give access to privileges both in and outside of school. Potential obstacles to access have to do with identity, the conflicted nature of the health Discourse, and too-strict ideals, all of which may lead to a separation of theory and practice that goes against the very heart of HCS.

The identity obstacle

Social identity may be a barrier both to education per se (Oyserman, 2013) and to the health Discourse (Oyserman et al., 2014; Stead et al., 2011), making some students doubly at risk of being marginalized in HCS. As illustrated by Figure 5, those who have already been socialized into liking physically healthy food, who belong to a group in society that values it and puts it at the centre of relationships, who has the skills and the funds to have applied healthy cooking and eating at home, and who are genuinely concerned with their health and their grades are well equipped to succeed in HCS. In contrast, students who come from a cultural background that favours 'unhealthy' food habits, who do not like vegetables, who value meat and sweet foods higher as a social 'glue' and view vegetarian food and vegetables as empty, and who are not concerned with nutrition or their grades may be a lot less likely to take personal responsibility for their physical health, and also to succeed in HCS. Add to this that adolescence is typically a period of non-conformity and a search for social belonging. Since the HCS meal is mainly shared among the students, their specific group norms will struggle to prevail (Meiselman, 2000; Oyserman et al., 2007). People are routinely judged based on what they eat (de Garine, 2001; Vartanian et al., 2007), and it is a moral duty to eat in culturally sanctioned ways (Counihan & Kaplan, 1998; Lupton, 1996), and the very act of eating healthy can be seen as contrary to student identity (Louis et al., 2007; Lupton, 1996; Stead et al., 2011; Stevenson et al., 2007).

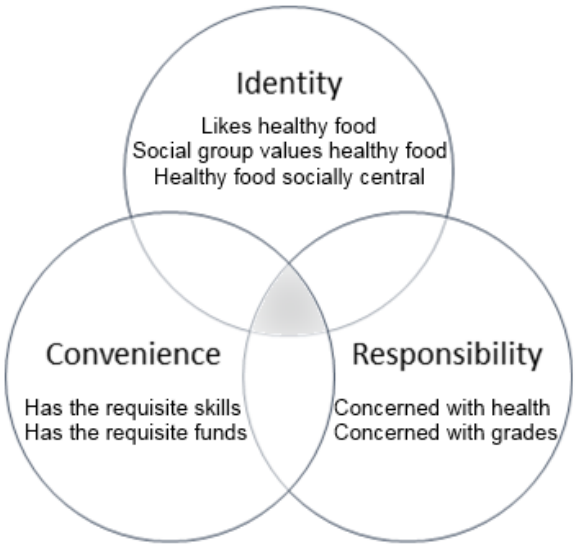

Figure 5. Application of the culinary Venn diagram of competing influences (based on Belasco, 2008), showing how the different aspects of a student's life may combine to facilitate learning about and applying information about food and health in HCS.

To complicate matters further, older children and adolescents may knowingly indulge in risky behaviours such as smoking, unsafe sex, and consumption of junk food simply to rebel and show independence (Whitehead, 2005), and such behaviour is even more common among those who are already at risk of worse health and socioeconomic status (Köhler, 2007; Oyserman et al., 2007; Oyserman et al., 2014). So if an individual likes to take risks (Lupton & Tulloch, 2002; Whitehead, 2005), any advice to live cautiously might put them off. 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), especially when it comes to the reduction of 'masculine' meat (Rothgerber, 2013; Ruby & Heine, 2011). For these individuals, making group norms salient can even strengthen resistance to health behaviour (Oyserman et al., 2014). We may ask with Whitehead (2005) if we should really interfere with people's desire to take risks, or, as Evans et al. (2003) point out, whether it is right to erode the joy of eating 'bad' foods when the student's social environment leaves little room for change.

In the data, for example, region may have been an important factor in the centrality of meat Discourse, since the area I studied is othered from a national perspective. Research by Stenbacka (2011) and Eriksson (2010) shows that the rural, northern parts of Sweden are constructed as backward, macho, and marginalized compared to the modern, urban south. Despite being an eclectic

collection of regions, the north is referred to in generalizing terms by both the media and by northerners themselves (Eriksson, 2008). Hansen (1998) has argued that the northern counties resist the dominant culture by emphasizing local practices. Since food habits are an expression of social cohesion and can be used to mark differences between groups (Delormier et al., 2009; Fischler, 1988), the resistance described by Hansen (1998) might involve food choice as well (cf O'Neill, Rebane, & Lester, 2004). If, then, nutrition science is seen as a part of the dominant culture, this may foster resistance in other groups. To have 'southern experts' dictate food habits disconnected from the everyday reality of the people is not destined to be received well. For example, any attempts to decrease meat-eating can be viewed as symbolic oppression.

Thus the power offered by the health Discourse does not necessarily lead to change, because some students lack the social incentive to apply it. The Discourses of normality are tied to the emotions, with meat regarded as normal, safe, and a habit, while vegetables and vegetarian food are charged with more rational things like health and knowledge, even grades. Emotions dictate incentive in all learning situations (Illeris, 2007), but I speculate that so called aesthetic/practical subjects like music, art, and HCS are more emotional than for example mathematics, which does not necessarily touch on personal experiences in the same way that food and cooking does. Thus HCS encourages rational reflection on an area of life which is largely emotional, symbolic, and social (Evers, Adriaanse, de Ridder, & de Witt Huberts, 2013). This tendency is mirrored by a study on Nordic ten-year-olds (Berggren et al., in press), where the children talked about healthy food in a rational way, while unhealthy food elicited more emotional language, both positive and negative. If, then, students are persuaded to choose vegetables and cook vegetarian food mainly by reference to specific assignments and grades, chances are that some will (continue to) regard it as a tedious chore to do with school instead of a joyful experience.

The conflicted health Discourse

The health Discourse was conflicted, perhaps partly because of an influence from the normality Discourses. Vegetables, meat, and vegetarian food were all viewed as both healthy and dangerous. Vegetables could provide specific nutrients, but they were not seen as something you could 'live on', like meat. Even as vegetarian food was promoted as a health ideal, there was an idealization of protein that constructed non-animal foods as nutritionally deficient. Since people tend to resist concepts that clash with their earlier understanding (Illeris, 2007), such contradictory information may lead to students falling back on pre-existing schemata and ignore or distort the new information to suit them. Thus even though teachers think they convey the

advantages of reducing meat consumption, they may unconsciously reinforce the dominant view (Janks, 2010) that meat is central to health by constructing protein and amino acid as difficult to find in other foods. This is illustrated in Figure 6, which shows how the centrality Discourse can 'outnumber' the threat Discourse not only in the classroom, but in the whole of society.

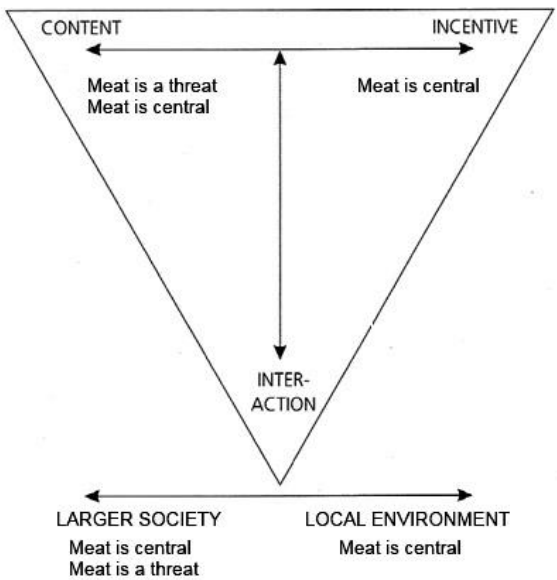

Figure 6. Example of how the conflicting Discourses of centrality and threat can influence learning, based on Illeris's (2007) model.

Incidentally, the focus on protein was exaggerated, since deficiency is rare in Sweden and the complementing of amino acids is often unconsciously done (Hörnell, Lagström, Lande, & Thorsdottir, 2013; Larsson, 2001; Sanders, 1999). It may even be that people who consume a meat-based diet are more at risk of nutritional deficiencies if they do not eat vegetables, since meat lacks for example vitamin C (Swedish National Food Agency, 2001). But instead of acknowledging the absence of certain nutrients in meat, the participants in my studies constructed it as unhealthy because there was too *much* of saturated fat and protein. I interpret this tendency to view meat as an 'active', aggressive threat compared to the more passive danger of vegetarian food as a reflection of traditional gender constructions. Even though, for example, uncooked beans contain toxic elements that may be regarded as an active danger (Campos-Vega, Loarca-Piña, & Oomah, 2010), it was always the lack of nutrients that made vegetables and vegetarian dishes dangerous. This is mirrored throughout history in the view that women are somehow deficient men. For example, female genitalia have long been regarded as an absence

(Braun & Kitzinger, 2001; Braun & Wilkinson, 2001). In 16th century England, they were even colloquially referred to as 'nothing' (Gorfain, 1993). It is almost too apt that the word 'meat' is used today to signify the penis. In accordance with these metaphorical constructions of food and gender, cutting down on meat is tied to a loss of masculinity and strength (Lupton, 1996).

Another problem to do with the absence Discourse was that it obscured the vegetable content of vegetarian food, which gave what can be seen as pseudo-access to the Discourses of responsibility. As long as the absence-of-meat criterion was fulfilled, the dish was seen as vegetarian and therefore carried the stamp of the health ideal, even though an important part of it – vegetables – was missing. This was the case with things like pancakes and waffles. Finally, there was a marked difference between what was unhealthy now and what might be unhealthy in the future. Most teachers and students made very sure that no one ate raw minced meat or chicken, since that might make them sick in the near future. In contrast, too much fat or protein was a less 'acute' problem and could be overlooked for the sake of instant sensory gratification. This can be explained by the fact that people tend to underestimate health risks (Sjöberg, 2003), and when the threat in question lies far into the future, the tendency is probably augmented.

Too-strict ideals

An important reason for why participants did not want to eat vegetarian food was the impression that it required too much of a sacrifice. These rigid boundaries between meat-eating and vegetarianism have possible religious overtones (Hamilton, 2000), and can be explained by the western dichotomy between sinning and absolution, body and mind, resulting in a moral imperative to control the body by way of eating (Counihan & Kaplan, 1998). In the absence of shades of grey, any transgression is viewed as a complete failure, which means that a decision to eat vegetarian food implies following a set of rules instead of indulging in pleasurable taste experiences (Cole, 2008). Such black and white thinking obscures more flexible and diverse diet designs that include both meat and vegetarian meals (Ashley et al., 2004). Then again, participants did not always see a big difference between a little meat and none at all: even a slight reduction of meat could trigger connotations of vegetarianism. Therefore pedagogical tools like the plate model may be viewed as containing so little meat that there might as well be nothing.

Add to this that if students wanted access to meat-free food, they had to show extra responsibility by fully committing to the deviant vegetarian identity, possibly facing social ridicule and questioning, being conspicuous at every meal, and in some cases getting a medical certificate and having to confront

the school canteen staff. This ruled out spontaneous eating of vegetarian food, even though mood is a known factor in food choice (Gardner et al., 2014). It also made sure that vegetarian meal designs stayed on the margins instead of finding avenues of distribution (Janks, 2010). A possible explanation for these practical obstacles is convenience (Belasco, 2008), since an additional dish would require more personnel, time, and resources in the lunch canteen, and stretch the budget in HCS. However, meat is generally more expensive than pulses, so it was rather the taken-for-granted centrality of meat that made convenience bow to it. Granted, things are changing and the practice of demanding a medical certificate in school canteens seems to be disappearing, but during the studied HCS lessons, vegetarian food was still marginalized.

Consequence: The separation of theory and practice

At the heart of the problem of access are meals and eating in HCS. Food choice can be very different depending on whether it is meant as a theoretical exercise or as an actual real life choice. Responsibility is all very well in theory, but as soon as the food is destined to be eaten, the Discourses of normality become more important. The theoretical *how you can do* may sometimes be accepted, but when it turns into a concrete *how we will do* during cooking, this can meet with resistance. Such a division between theory and practice occurs outside of school too, and the phenomenon may be reinforced by social norms that construct healthy eating as something the in-group does not do (Kearney & McElhone, 1999; O'Neill et al., 2004; Stead et al., 2011). Interestingly, the HCS syllabus explicitly promotes the meshing of theory and practice, based as it is on an ideal of knowledge-in-practice (National Agency for Education, 2011b). Judging from the results of my studies, that meshing is one of the subject's major challenges.

Granted, the current grading system is designed to evaluate student cooking skills and reasoning around food and health. It does not require that students *eat* varied and balanced meals, even though *cooking* them is a part of the central contents (National Agency for Education, 2011a). So what does this mean in practice? To cook a balanced meal according to, say, the plate model, the student may have to include foods they do not like, especially if aspects of convenience (Belasco, 2008) limit their choice of ingredients. And what then? Do they have to eat the disliked food, or is it enough to show that they can cook it and reason around why they have included it? Should someone else eat the resulting dish – or should they throw it away, thus violating the economic and environmental perspectives of the subject (National Agency for Education, 2011a)? If we accept that students do not eat the whole meal, the health Discourse is not applied in full, but if we force them to eat, it can be seen as a violation. In either case, students learn that applying nutrition advice is

incompatible with identity. Even the teachers themselves may have their own defence mechanisms (Illeris, 2007) against the content they teach, and this can make its way into their food Discourses. The ambiguous or contradictory information of the conflicted health Discourse can make both teachers and students pick and choose the things they agree with according to their identities, and too-strict ideals may make them give up before they have even tried.

In summary, if the Discourses of normality are not challenged, students are denied access to the Discourses of responsibility that might help them enhance physical health and get good grades; on the other hand, if students' performance of identity such as regional belonging, class, gender, and/or age is tied to those same Discourses, questioning them may have a negative impact on their psychosocial health. So what is the way forward?

Diversity

To work with diversity is to include different cultures in activities and not just the dominant ones. Quennerstedt et al. (2010) argue that there are different ways of living healthy in different contexts, with different economic frames and social circumstances. Such difference exists within the classroom in the form of ethnicities, cultures, social classes, genders, religions, and so on. Therefore student backgrounds can be actively used as resources for a transformed practice. For example, they can bring recipes from home.

But more than that, teachers and students need to seek out information where it occurs naturally. The data showed that students need more resources: if Amy in 9:2 had consulted other sources than the HCS textbook, she might have found out that pulses contain calcium, and thus been able to avoid the spinach she did not like. Likewise, the boys in 8:3 might have been allowed to make the tomato soup they wanted to, if the teacher had told them to replace the calf stock with a vegetable-based one. Since no one person can know everything, it might be a good idea to consult people outside of the classroom, such as family members, web sites, the school canteen staff, local restaurant chefs, and even ordinary citizens with their knowledge of different cultural traditions. As I write this, Sweden has welcomed a relatively large number of refugees, which means that alternative food traditions are available in most places, even small villages. Such resources can be tapped for recipes that are based on something other than red meat, instead of always trying to make vegetarian dishes emulate a meat-centred norm. Despite the hegemonic status of the proper meal, Sweden has a history of incorporating foreign food cultures quite easily. For example, tacos, sushi, and spring rolls are three fairly recent additions that have become veritable staples in Swedish cuisine.

Indeed, anecdotal evidence suggests that children who do not normally like vegetables eat them when they are part of a taco meal, and spring rolls are often filled with vegetables like carrot, onion, and cabbage. Since there is a risk of being blind to healthy food that does not follow the template of the plate model, for example, different versions of the model might open up for a broader view of healthy meals. Based on the above example, a 'taco model' might be better received among the young, taking as its starting point the popularity of a dish that can include a wealth of different vegetables.

Thus by circumventing the traditional Swedish proper meal, we gain access to alternative designs that more easily include vegetables and vegetarian dishes. But to do so, we have to let go of the typical HCS cuisine that largely centres on minced meat and chicken (Höijer, 2013). True, many Swedish dishes are based on minced meat, and it is fairly easy to cook, which makes it a good staple to fall back on and a logical choice in a subject that emphasizes food culture. However, it is also quite expensive for a school subject that does not necessarily have a large budget. Moreover, food culture is not limited to traditional Swedish recipes, not to mention that HCS is supposed to take sustainable development into account (National Agency for Education, 2011a). In many parts of the world, meals are based on pulses and lentils rather than meat. In the data, most students disliked these foods, and yet several bean-based dishes have already made a home in Swedish culture, for example falafel and hummus. This indicates that processing and cooking methods influence how a food is perceived: while beans in a chili con carne may be disliked and even pushed to the side, the disintegrated chickpeas in a hummus may very well pass the test for a good dip sauce. Not only individual foods can be introduced with the help of diversity, but also alternative food 'grammars'. By contrasting the taken-for-granted status of the local proper meal with, say, a traditional Indian cuisine based on several small dishes with lentils and vegetables, or perhaps Italian piatti where each small dish has an equal place in a meal, the contingent nature of the dominant Discourses is challenged. In the process, more flexible and diverse diet designs that include both meat and vegetarian meals could be made a part of 'normal' cooking (Ashley et al., 2004).

Diversity also shows that *people* are different, and that this is a good thing. For example, contrary to what the Discourses of normality would have you believe, successful male athletes can be vegetarians, and a 'northern inland identity' can be based on locally grown crops instead of meat. It is also possible to discuss the variations in how health is seen in different cultures. For example, what westerners view as overweight can be seen as healthy elsewhere (Van Hook & Baker, 2010). Incidentally, diversity can even help us see how human difference impacts what parts of responsibility are relevant in a given

context. For example, the area where I gathered my data has a tradition of hunting, and both the health and environmental impact of consuming wild game is different from industrially farmed and processed meat. An elk shot in the woods has better fat composition than a farmed cow (Bere & Brug, 2009; Strazdiņa, Jemeļjanovs, & Šterna, 2013), and the subsequent handling and distribution of the elk meat emits less greenhouse gases than does large scale meat industries. Therefore the 'truths' of the health Discourse may not be equally applicable in all contexts. This shows how less powerful groups in society may be maligned for something the more powerful do to a larger extent. It can also explain why it may be more difficult to convey the negative aspects of meat consumption in areas with a strong hunting tradition, even though nowadays, people there buy industrially processed meat in grocery stores as well.

The design problem: How do we satisfy both normality and responsibility within the constraints of convenience?

As we have seen, different people have access to different Discourses. Both students and teachers can have difficulty reaping the rewards of normality, such that their voices and experiences are marginalized in the face of a hegemonic view of what a proper meal should be. On the other hand, they can also be barred access to responsibility because of that same power. However, the diversity of human diets sketched above can help us see alternative approaches to food and eating in HCS, and in this the fourth and final dimension of the model of critical food literacy, I will suggest ways of challenging the Discourses of both normality and responsibility. During this stage, it is vital to recognize that no Discourse is neutral, since every redesign foregrounds something new (Janks, 2010).

It is also important to acknowledge the way convenience limits what can be achieved in HCS, since everything in the subject is governed by time, food availability, storage space, kitchen equipment, classroom layout, and budget, all of which are subject to administrative and political decisions (Höijer, 2013; Lindblom et al., 2013). Because of these constraints, what happens during the little lesson time HCS has becomes all the more important. Teachers need to create pedagogic situations that satisfy many different perspectives every time they meet the students. In the HCS classroom, they encounter and use the sensory, cultural, social, health, and evaluation Discourses, and it is no small task to somehow harmonize these with the help of the often scant resources available. Of course, you may argue that foods like pulses and root vegetables are not only healthy but also environmentally friendly and cheap, thus satisfying all the perspectives in HCS (National Agency for Education, 2011a). But students' taste preferences, background culture, and social identity may

not be immediately compatible with such foods. If they are used to pork chops with a cream sauce, we cannot simply replace that with lentils and hope for the best. Unless the food appeals to the students, its healthiness stays theoretical because no one wants to eat it, and since the subject is only allotted 118 hours out of the entire nine years of Swedish compulsory school, and food and health only represents a rough third of the central knowledge content (National Agency for Education, 2011a), we simply do not have the time to fail.

Therefore the following suggestions are designed to satisfy the requirements of both physical and psychosocial health while also taking account of possible obstacles. The suggestions are not revolutionary in any way, indeed many of them are offered as pedagogical tools in HCS teacher education at my own university today, but judging by the results of my studies, they are not always applied in the field. Some of them may appear to contradict each other, but this is only natural since the Discourses they are based on are contradictory in themselves, and I do not believe that any one solution can ever be a panacea. Instead, I intend them as a checklist of possible developments of teachers' practice both in HCS and in HCS teacher education, but since I do not pretend to have the ultimate answer, they can also form the basis for discussions about the subject and hopefully spark new ideas that I have not thought of. Maybe they can even function as a resource for any future reworkings of the syllabus or for debates about the material resources allocated to HCS. To facilitate reading and comparison with Results, the headings are ordered to correlate with the sensory, cultural, social, health, and evaluation Discourses.

Focusing on sensory experiences and cooking methods

One way of trying to ensure that there is something for every taste is to offer a variety of diverse ingredients and to allow students to taste different things without demanding that they 'eat up'. For example, we might encourage vegetable consumption by using recipes that include them as part of the main dish, such as pizza with its ubiquitous tomato sauce and a wide array of toppings to choose from. Instead of insisting on obedience to a static recipe, alternative ingredients can be suggested to students who dislike the taste of a specific vegetable, such as cabbage instead of onion in a minced meat sauce. Perhaps some of the cooking in HCS might even be made more experimental. For example, if students use some lessons to cook a few different vegetables using different methods like boiling, frying, slicing, and grating, that could free up money for a more meal-oriented lesson where students are allowed a broader choice of ingredients than the budget would otherwise allow. Also, sensory preferences would be less important during the experimental lessons, since students would only be required to taste small portions of differently prepared foods rather than eat a whole meal. It might even decrease the

importance of normality, since the foods are introduced on their own as an experiment, and the time frame problem would also be less pressing. One example of a pedagogic method that focuses on this kind of sensory development is SAPERE (Swedish National Food Agency, 2000), which involves learning to distinguish tastes and verbalize experiences. Such an approach might be a way of showing the wide variety of taste, smell, visual appearance, and consistency in for example vegetables, even as students' sensory experiences are validated.

Of course, a more experimental approach might decrease the popularity of the subject. The general impression of HCS is that it is fun and has to do with cooking (Benn, cited in Höijer, 2013; National Agency for Education, 2004; Petersson, 2007), even specifically with baking. If we work on changing that perception, the subject may lose some goodwill. On the other hand, the very basis for its existence – to develop students' ability to make informed choices and to apply the perspectives of health, private economy, and sustainable development – disappears if we only teach in order to make ourselves popular by reproducing extant Discourses of normality. If the goal of developing responsibility is taken away from the subject, will not the subject itself risk being taken away? Another problem is that by lessening the focus on students' own traditions, important aspects of culture and commensality might be lost. As Janks (2010) points out, no redesign is neutral, but always promotes one agenda or other. However, I do not propose doing away with meals altogether, only devoting some of the lesson time to less culturally charged food situations.

In addition to introducing foods by way of experiments, it is possible to build on already popular meals to include less popular foods. For example, all my participants seemed to like pancakes, so they could make crêpes with different kinds of vegetables. Likewise, many young people like foods that involve a lot of variation on a theme and choice of many different toppings, like pizza, hamburgers, tacos, and kebab. It might even be possible to disguise unpopular foods, for example by basing sauces on vegetables. This requires more skills, time, and ambition than just whisking a carton of cream into a pan, but again, HCS can be the arena for experimenting and trying new things. Some students may like the taste of vegetables when they are ground to a mush and mixed with salt and spices, even though they do not like them in raw form. Evidence for this may be found in the mandatory, unreflected use of tomato sauce or crushed tomatoes on pizza and in minced meat sauces. If tomatoes can be accepted as an integral part of so many recipes, surely other vegetables can too. You may argue that disguising vegetables further lowers their status, but in the long run, it might help make them more popular.

If vegetables are still difficult to promote, fruits may be an easier sell. Jam is culturally acceptable in Swedish cooking as an accessory food in proper meals as diverse as meat and potatoes, *palt* dumplings, and black pudding. It is also tied to desserts and breakfast, thus transcending the otherwise rigid categories of 'real' food and unnecessary extras. But more than that, fresh fruit can be used in salads, gratins, casseroles, and so on to add succulence, sweetness, and consistency. In connection to this, students can be encouraged to discuss the role of sweet ingredients in different traditions and the different connotations of sweet foods in snack form versus sweet ingredients in main dishes. Teachers can also modify any danger/disgust Discourses that construct sweet foods as bad by pointing out the fibre and micronutrient content in fruit.

It should be noted that all these suggestions presuppose availability of the foods in question, and this is largely due to geographic location. In the largest towns in the data, supermarkets currently sell meat from kangaroo and crocodile, and there are a lot of exotic fruits and vegetables to choose from. In contrast, the smallest village offers affordable wild game directly from the hunter, but has a smaller variety of imported foods. Thus convenience (Belasco, 2008) directly influences not only what an individual encounters in life, but also what the HCS teacher can access. Some teachers can only shop in the local grocery store, while others are required to order their wares from a retailer online. Luckily, there are other ways of promoting diversity that do not require a lot of material resources.

Pushing the boundaries of cultural normality

No matter how limited the budget or storage space available to the individual teacher, they can challenge dominant Discourses by the way they speak. Just by talking differently about a food, a different focus is adopted. In the data, meat was always constructed as the prototypical source for protein. By becoming conscious of the dominance of the centrality Discourse, teachers can choose to deliberately mention another food first, such as beans or nuts. In fact, perhaps protein is not very important to discuss at all. Instead the focus might shift to iron, for example, since iron deficiency is a much more common problem in Sweden, especially among teenage girls (Enghardt Barbieri, Pearson, & Becker, 2006). Similarly, teachers can counteract the 'emptiness' of vegetarian food by focusing on pulses, lentils, vegetables, and starchy foods instead of the absence of meat. In the data, even students who rejected vegetarian food professed to like some vegetable-based dishes, which means that teachers might avoid eliciting negative connotations simply by avoiding the term 'vegetarian'. By basing activities on cuisines that traditionally use a lot of pulses and lentils, planning also becomes easier both for the teacher and the students. Thus working with design can lead to creative cooking which lets

different people and their food habits take centre stage instead of what the textbook regards as tradition and normality.

Teachers can even attempt to redesign Discourses on region, class, gender, and age. Regional identity can be challenged by purposely emphasizing for example locally grown crops rather than wild game, and by exploring the us-and-them mentality that can make people in the rural north reject the dominant, southern culture – and vice versa (Hansen, 1998; Eriksson, 2010). Similar situations in other countries can be explored to see if the relationship between city and countryside or between different regions is the same all over the world, and if so, why. Class issues can be addressed by including affordable, tasty food that is quick and easy to prepare and yet nutrient-dense, perhaps by showing how prefabricated pasties and pizzas can be accessorized with easy-to-make 'week salads' that stay fresh in the fridge for several days. I am aware, of course, that prefabricated food is seen as completely out of the question by many HCS teachers (Höijer, 2013), and I invite them to reflect on why this is so, and what norms form the basis of that opinion. I do not ask them to change their mind, merely to become aware of the possible moralism inherent in their views, and how this impacts how different groups of students are made to feel, perhaps mainly those from the working class.

As for gender norms, they can be constantly undermined by showing examples of local, successful, famous, or otherwise attractive people who challenge preconceived notions of how they should eat: masculine men who eat little or 'daintily', feminine women who do not, feminine men who eat a lot of meat, butch non-binary people who are vegetarians – the list is endless. To address age norms and children's culture, teachers can promote vegetable-rich foods that are popular among children and show examples of children's food in different countries. Also, in the same way that invisible norms are made visible by introducing the term 'cisgender' into mainstream consciousness, we might consistently use a specific term for people who eat meat in order to mark their difference from vegetarians. Currently, this linguistic gap is filled by the extremely misleading term 'omnivore', and I have mostly seen it used in tandem with 'vegetarian', not on its own.

Since a single teacher meets their students for 118 hours at most, these attempts to transform dominant Discourses cannot be expected to make a big difference on their own, but the more people do it, the more it can spread, and you never know what seeds take root.

Harnessing the social power of food

To counteract potential ostracizing when it comes to distribution and sharing of food in the classroom, teachers can make cooking a more communal activity. In this way, finished products such as cookies do not belong to anyone in particular, but rather to the whole group. The disadvantage of such an approach might be a diminished sense of pride in students' own creations. The upside is, of course, that they can share a collective sense of pride. It is also possible to connect this communal type of cooking to the experimental cooking mentioned above, with students making different versions of a single dish and then comparing them based on things like price, visual appearance, and/or environmental impact. In such an assignment, using recipes from different cultures might soften students' strong feelings about how the product should taste. Together they can challenge received notions about food and eating, and create new meal patterns based on the diversity found in the classroom, in local society, and on the Internet. To distribute their reimagined meals, they can take photos of the finished products and share on social media, or make their own cookbook, thus strengthening their sense of community.

In general, all students can be allowed to eat of all the food made during a lesson, including 'deviant' versions like vegetarian dishes. However, it would be crucial for the teacher to oversee activities and interaction so that students do not use this tasting exercise to denigrate certain dishes and/or peers. It is also important to remember that pre-existing power relations, conflicts, and bullying situations can make sharing a meal traumatic for some students. Therefore I am not a proponent of always having everyone eat together. You may argue that breaking bread is a way of showing friendship (Lupton, 1996) and thus a potential opportunity for mending broken relationships, but since the HCS classroom can be somewhat chaotic and the teacher cannot be everywhere at once, there is always a risk that a bad social situation is worsened instead, unless handled very carefully. How to structure the meal situation must therefore be up to the individual teacher who knows their students and how much time they have at their disposal to seriously work on social relationships.

A buffet where everyone eats of everything would also require a balancing act between encouraging students to have a taste and yet not forcing anyone to eat of what they find disgusting. Anecdotal evidence suggests that many HCS teachers think students should at least taste a small amount of everything that is cooked in HCS, but judging by the data, this does not extend to vegetarian food – or to vegetarians. Thus teachers ask some students to eat of what disgusts them, but not others. This is maintained by the quasi-religious nature

of vegetarianism (Hamilton, 2000) and the fact that it is a lifestyle choice, but based on what we know about food and identity, may it not also be a lifestyle choice not to eat vegetables? I do not have a solution to this conundrum. I merely ask that it be recognized as such.

Incidentally, we might be able to work on the low status of vegetables and vegetarian food by creating new traditions and social rituals around them – perhaps even by making them into gifts in the same way meat and sweet foods are. In connection to this, teachers and students could discuss the social value of different foods and question why some things, like chocolate and cookies, are widely accepted as gifts but vegetables are not. In such a discussion, the negative aspects of sweet foods may come up, and in turn be challenged with the help of more positive aspects, such as the historical importance of sugar for conservation of food. Condiments that are culturally compatible with main meals could be highlighted, such as jam, chutney, gari, honey, and dried fruit. By discussing these foods in relation to different traditions, teachers can clarify the important role of sweetness in the human diet and thus partially disarm the social danger inherent in the physical unhealthiness of sweet foods. This could tie into a discussion about the physical and psychosocial dimensions of health, to which we now turn.

Exploring the psychosocial side of health

We know that an exaggerated focus on prohibitive health advice can elicit resistance, especially among the young (Whitehead, 2005). If things like vegetables and vegetarian food are promoted mainly by reference to their physical health properties, we risk alienating a portion of the students because the very 'aura' of healthiness can decrease the attraction of a food (Kroone & Alant, 2012; Maimaran & Fishbach, 2014; Raghunathan, Naylor, & Hoyer, 2006; Stead et al., 2011). In the data, even those who opposed the vegetarian theme professed to like vegetarian dishes, which indicates that the terminology itself can be an obstacle and that some people might eat vegetables if they are not promoted on the basis of their healthiness. Therefore it might be a good idea to tone down the focus on physical health and to afford psychosocial health the same weight. By honestly acknowledging both normality and responsibility as aspects of health, the consequences of each can be highlighted and students can be given the chance to make their own minds up about what to take into account in any given situation. In tandem with this, teachers can point out how the Discourses of normality construct meat as nutritionally healthy based on a symbolic connection to power and strength, but that other foods are quite as strengthening.

Of course, even if teachers do not promote foods based on physical health arguments, many students already know what foods are seen as healthy, which means that the taste/healthiness dilemma is already embedded in the food. We cannot mention vegetables without indirectly invoking nutrition science, and we cannot speak about meat without conjuring the spectre of masculinity and power. But perhaps by allowing all these connotations in the classroom, student reasoning around food and health can be made more personal and relevant. If they are encouraged to centre their arguments on their own identities instead of only scientific 'facts', they could argue against, say, vegetarian food based on their strong regional or gender identity. The problem becomes how to evaluate such reasoning. Can an argument like "it's not good for the soul" weigh as heavy, gradeswise, as "this contains calcium so we should use it"? If, following the syllabus, we view the psychosocial aspects of health as being on a par with the physical ones (National Agency for Education, 2011b), perhaps it should.

This also means that students who already enact the physical health Discourse should learn to see that there are other aspects of health, and to understand the cultural and social reasons for rejecting health advice instead of feeling superior. In this way, the playing field might be made somewhat more level. It might also help include students who have difficulty arguing for their views on food with the non-emotive language so typical of school (Gee, 2004) – because why should their language not be emotive when the subject is food? Consequences for different people can also be discussed: how do the Discourses of normality and responsibility impact men, women, and non-binary people, people from different regions, countries, or classes? How free is food choice relative to these Discourses, and consequently, how much power does the individual have over the choices that influence their own physical and psychosocial health? How is deviance punished? All of these questions have repercussions on health on an individual and societal level, and all of them constitute a way of applying the reasoning required by the HCS syllabus (National Agency for Education, 2011a).

However, this takes bravery on the part of the teacher, since the same troubled physical/psychosocial dichotomy faces them too. Western culture separates body and mind, pleasure and duty, and many people find it difficult to integrate these aspects into a whole (Counihan & Kaplan, 1998; Lupton, 1996). Rather, we divide our lives into the everyday and celebration, work and leisure time, to mark the boundaries where we are allowed to break the rules and when we are not. For example, anecdotal evidence suggests that many HCS teachers promote physical health throughout the semester, only to ignore it once it is time to bake saffron buns for Christmas. This makes no sense unless they explicitly discuss the psychosocial value of the saffron buns on the same

level that they discuss physical health aspects. In the interest of balance, it is also possible to acknowledge that 'unhealthy' foods like buns actually do contain a range of important nutrients, which means that they are good for you as well as being bad – not only as social cornerstones, but as nutritional parts of a healthy diet. Such an admission would give students access to a wider reality with surprising new possibilities for meaning-making.

Unpacking the basis for evaluation

Of course, by lending weight to psychosocial health, there is a risk of creating a laissez faire situation where students can negotiate their way out of cooking and/or tasting foods they do not know or like, thus barring themselves access to potentially healthy behaviour. But in fact, based only on the current grades criteria, a student can cook a meal without, say, any vegetables at all, and then explain how the meal would have been healthier *with* vegetables. Let us take a final look at the wording of the current syllabus:

> *Pupils can plan and prepare meals and carry out other tasks which occur in the home, and do this with some adaptation to the requirements of the activity. In their work, pupils can use methods, food and equipment in a safe and basically functional way. Pupils choose approaches and give simple reasons for their choice with reference to aspects covering health, finance and the environment. Pupils can also make simple assessments of work processes and results. In addition, pupils can apply simple and to some extent informed reasoning about how varied and balanced meals can be composed and adapted to individual needs.*
>
> *(National Agency for Education, 2011a, p 46)*

In short, for a passing grade in HCS, the syllabus requires students to show that they can cook in a safe and functional way – not to cook healthy meals or to eat what they have cooked. They must also verbally explain the choices they make with reference to health – but again, they do not need to make healthy choices. They have to be able to assess their own process and results, and also to discuss how to make 'varied and balanced meals' for different kinds of people. Nowhere in this text does it say that a student has to taste everything, that they have to cook healthy meals, or that they must base their choices on health considerations. They merely have to be able to cook, and to reason around health.

The one mention of 'choice' in the text has to do with 'approaches', which can be interpreted as cooking methods or foodstuffs, among other things. However, since it is not specified what choices are supposed to be left to the students, they may end up with very little choice at all. Indeed, judging by my

data and Höijer's (2013) dissertation, teachers make most of the choices in HCS. During the studied lessons, when they did not provide the specific recipe to be used, they could still use assignments based on health or dominant cultural traditions to make students use unpopular ingredients. This is not explicitly supported in the syllabus, but neither is letting students make all the choices from planning what to make, shopping for groceries, and then deciding on how to prepare the food, even though this is the process people use to cook in their own homes. Granted, my suggestions above – to focus on sensory development, promote a wider view of normality, and toning down ownership of dishes – is not reflected in the grades criteria either. Therefore these suggestions and the observed methods of the teachers in my study are merely the choices of individuals, and if challenged, none of us can safely refer to the official document to back up our pedagogical methods.

Of course, it is possible to chalk such choices up to the professional freedom of each teacher – but it may also be a topic of debate for the next (inevitable) syllabus: should the grades criteria be reworked to require a more specific practical application of both physical and psychosocial health, or should they instead be relaxed to allow for more student-centred development of skills related to the meals they actually want to be able to cook because they find them tasty? This is tied to what we want the subject to be – a cooking course or a health course or both – and what we believe students need to learn in order to function well in their future lives. Since I do not have the ultimate answer, I leave the question on the table and move on to questioning my own studies instead.

Method discussion

Having discussed possible consequences of the Discourses I have created based on the data, I will now turn around and discuss the basis on which I created them in the first place. Just like the Discourses on food in HCS can be challenged, research is also subject to questioning, and part of this questioning falls on the researcher themself. In the following, therefore, I will sketch what I see as the main shortcomings of my studies and attempt to explain why I deemed them acceptable.

The research question and clashing perspectives

The choice to study vegetables, meat, vegetarian food, and sweet foods can be seen as arbitrary, since the Discourses used to argue for and against, say, vegetables were sometimes similar to those used for other foods. However, for reasons of scope, it was necessary to limit the data to be transcribed, and the first thing that caught my eye in the video footage was the way a group of boys

in 5:1 avoided a tomato without ever actually saying 'no'. Of course, my experience as a HCS teacher and dietitian probably made me notice that event rather than something else. Thus what 'surfaces from the data' is not objective fact, but phenomena I am preconditioned to see because of the Discourses I live in. One example is that my definition of health at the time I started my doctoral studies had a quite narrow focus. Being a trained dietitian, I was and still am 'stuck' in the nutritional Discourse. The fact that I saw a difference in how students negotiated different kinds of foods reflects the common categories which are used in dietetics, such as 'vegetables' and 'meat'. The data could have been divided in completely different ways depending on the study, for example cooking methods or student gender. Thus the way that I posed the research question reveals my preconceptions about the data, the context, and the knowledge content of food and health.

As a researcher, I am also a product of my time. Discourse, literacy, and the social dimensions of learning were all trending at the time before and during my doctoral studies. It would have been more unique to take a behaviourist stance, but like so many others, I joined the mainstream of current thought instead. This brings me to the main ontological problem in my dissertation, namely that it combines a social constructionist approach that views knowledge as socially constructed and contingent, and a more positivist view of food as a nutritional entity that we can know about through uncovering scientific 'truths'. On the one hand, I presuppose that nutrition scientists have expert interpretation rights as to what a food 'is' by viewing its meaning as reducible to an internal biological structure (Gee, 2014b). On the other hand, I also presuppose that everyday people have their own 'amateur' interpretation rights based on how they use food in their social lives. By viewing both these approaches as 'true', I end up with the same problems as the syllabus, the HCS textbooks, and the studied participants themselves. I am part positivist and part constructionist – believing in 'facts' only to deny the existence of facts the very next minute. I have not quite managed to harmonize these views. Throughout my research project, I have been torn between the nutritional and the sociological paradigm. Because of this, some parts of my text may use a nutritional Discourse, and others a sociological one. I too am caught in the intersection, and I do not have a solution to the conundrum. As I have argued about HCS teachers, one person cannot change the conflicts that occur on a societal level. They can simply be aware of it and try to navigate the shoals. This dissertation has been an attempt to make the gap between the different perspectives on food and health in HCS visible, if not to bridge it.

Besides, these different perspectives have seemed necessary to me, because a social 'fact' is qualitatively different from a biological one (Durkheim, 1982). Nutrition research draws on natural science methods to search for as objective

a truth as possible about how nutrients interact with the human body, while the constructionist tradition focuses on social interaction and meaning-making. While we may perhaps gain fairly objective knowledge about nature and the human organism, albeit limited by our five senses and the instruments at our disposal for measuring biological phenomena, the social world is only knowable through social methods. The researcher is a part of that social world, and their interpretation is always coloured by their background. Of course, you may argue all research is subjective, even in the positivist tradition, since the choice of research question is never completely theory-free. For example, the very act of posing the research question 'does meat cause cancer?' may be partly based on a cultural view of meat as dangerous and tied to aggressive behaviour, an idea that harks back many centuries (Candido, 1990; Willard, 2002). Moreover, once the biological mechanisms are 'known', they are subject to social constructions in the Discourse used to convey them. I would go so far as to say that knowledge of biological facts is also discursive, because all research is subject to the metaphors inherent in the research language (Lakoff & Johnson, 1999). For example, in order to understand phenomena like atoms and molecules, humans have to make visual models that distort the very reality they are meant to illustrate.

Another problem with the clashing perspectives of sociology and natural science is the categorization of the studied foods. For example, according to biological taxonomy, sweet corn is a cereal, but it is viewed as a vegetable by lay people. Thus the social construction of a food can lump it in with foods with which it does not share important nutritional contents and therefore give a false sense of 'healthiness'. The worst example of this is perhaps my definition of meat, which includes fish and poultry, which are both healthier than fatty red meat and charcuteries according to nutrition research. I still chose to include fish and poultry in my definition of meat, because the dichotomous relationship between meat and vegetarian food meant that the absence of animal flesh created a 'hole' on the plate. From a nutrition point of view, this only makes half sense, since eating fish and poultry is rather encouraged. However, the definition helped me discuss the deviance and emptiness of vegetarian food, which was my main goal with these two studies.

Sample

The sample was not very large, but due to the detailed nature of my chosen form of Discourse analysis, more material would have been difficult to handle, so I view it as quite sufficient. The population was ethnically and economically homogenous, but this was deemed acceptable since the area was under-researched and the study exploratory. The strong focus on the verbal side of Discourse also meant that quiet students were underrepresented by sheer

amount of words. It may be that some students liked vegetables but did not talk about it, and others may not have liked meat, but did not mention it during the studied lessons. However, the invisibility of unuttered thoughts is a problem with all research that is based on what participants say, and in my view inevitable.

Of more concern, perhaps, was the fact that participation varied a lot between groups, so that in the end, only three participants remained in grade 7, while in 9:3, everyone participated. This meant that I may have missed differing views in 7, but on the other hand, the Discourses I created were fairly similar between groups. I speculate that some of the non-participants may have regarded the observer as yet another adult whose job it was to survey them, which means that they might also have been more negative towards both school and the food and health content in HCS. In grade 8, reluctance to participate might also stem from the fact that the students were asked to participate in two other studies at the same time – group interviews and a survey. On the other hand, the same was true for grade 5, and almost all of them still agreed to be observed. This may have had to do with the influence of a teacher or legal guardians.

Another potential problem was that the data was gathered in four different age groups in five different schools with five different teachers. The wide age range may have influenced how freely the students expressed their opinions, what aspects of health they valued most, how obedient to authority they were, how tied to the food habits of the home and how dependent they were on peer opinions. Also, age influences how participants express themselves, since the older the individual, the more complex their reasoning (Hoff, 2013). However, the purpose of my studies was not to evaluate how eloquent participants were, but only what Discourses they used. Thus the difference in ability had no relevance for the results, since 'Ugh, I don't want that stuff!' (5th grader) was taken to belong to the same Discourse as 'I don't think spinach is any good at all' (9th grader). As regards the geographical spread of the schools, grades 5 and 8 belonged to the same school, while grade 7 and all three grade 9 groups were from different schools in other towns. However, the study focused on Discourses that pervade all of society in some measure, which means that it should not matter much where the data is gathered. All Discourses can exist anywhere. Therefore the breadth of contexts may be viewed as a strength of the studies instead, since several different ages, geographical locations, and schools were represented. Moreover, the studies were exploratory and aimed to lay the foundation for further research in a very sparsely researched area, which meant that I saw any population as a good starting-point. That said, the regional aspect may well influence the data, in that some of the participants may share certain cultural characteristics that are less salient in other areas.

Besides, as in all science, it is impossible to make conclusions about all existing phenomena of a certain kind if you have not studied all of those phenomena (Watkins, 1957). You can only dissect a part of reality in the hope that it sheds some light on other parts of reality, and as such, any part of that reality is equally suited. You do not study the location itself, but the manifestations of social interaction within that location (Geertz, 1973), and data collected in one arbitrary town is not intrinsically better or worse than those collected in another. Each situation, naturally, is unique, but my aim was partly to find general patterns beyond local idiosyncrasies. As always, further research will refute, refine, expand, and/or confirm my results, thereby moving the field forward.

Length of study

In ethnographic research and observations in general, prolonged immersion in the culture is generally regarded as desirable. But HCS is a small school subject with only 118 hours, and a lot of time was lost due to other activities. Some groups were observed up to five times, while others were only observed once. Since the study was conducted parallel with other parts of my doctoral studies, observing all the groups was not feasible. This meant that additional Discourses – and other uses of the Discourses – may have occurred during lessons when I was not present. For example, maybe students used the health Discourse freely and positively, without reference to either grades or evaluation. However, it is telling that the evaluation Discourse only occurred with vegetables during the time period that the study was conducted. The participants could also have talked about meat in terms of assignments during this time, but they did not.

Still, I cannot know what data I missed during times when I did not observe. Ideally, I would have observed each group for at least a semester (around ten lessons), which would have yielded more data per group and maybe shown tendencies develop over time. On the other hand, judging from the dismay some students showed when I came back for more than one lesson, it may have been more difficult to secure participants for a longer study. Students who dropped out risked spreading their negative views to the rest of the participants, and this tendency might have been even more marked if I had stayed for longer.

Researcher intrusiveness

A video researcher cannot choose but influence the situation under study, since the camera is pointed towards phenomena which mirror the area of interest (Melander, 2009). Aware of this, I and my colleague Lindblom

endeavoured to stay as unobtrusive as possible by keeping out of the way of students' movements, by looking through the lens instead of directly at the participants, and by placing the cameras out of the way of kitchen unit activity. However, one recurring problem was managing the cameras vis-à-vis students outside the study. Covering the lens each time a student walked in front of it proved very conspicuous, as I was made aware when they started laughing and talking about it. Some of them even started walking on purpose in front of the camera to see if I would react, which made me choose more discreet methods like laying the camera on the table, or picking it up and pretending to change angles.

Despite these efforts, it was not always possible to stay unintrusive, since students often moved out of sight or stood at an awkward angle that made it hard to see what they were doing with their hands. Because of this, I sometimes moved the camera, and sometimes refrained. According to Heikkilä and Sahlström (2003), students who are further from the camera are allowed to forget its presence to a higher degree than those to whom the camera is closer, so my choice to move it was a trade-off between drawing attention to myself and not capturing relevant data. Some researchers even use one camera and follow students around, which is of course very intrusive, but on the other hand more data can be captured (Heikkilä & Sahlström, 2003). Then again, minimising intrusiveness might be of higher importance than capturing everything, especially if the focus, like mine, is mostly on verbal interaction. Researchers that focus on more visual aspects of interaction, such as student gestures or facial expressions, might be better off choosing the more intrusive method.

Cameras in general are well known to make students very interested and to make them perform for it or ask the camera operator a lot of questions (Hummelstedt, Sahlström, Forsman, Pörn, & Slotte-Lüttge, 2008). While other researchers have chosen to respond minimally to such attempts at communication, I chose a middle road where I replied in a friendly manner but without inviting further contact. I deemed this the best course of action since declining to respond might have made participants suspicious and uncomfortable. By presenting myself as an amiable adult instead of as a stern stranger, I hoped to make my presence more tolerable, thus minimizing the risk of participants dropping out of the study. It is possible that I made the wrong choice by being cordial rather than distant, but I believe that my behaviour went some way towards securing participation. Besides, responding to students who sought contact never became a problem for recordings, since their attention was always drawn back to the project at hand or to their fellow students. In fact, it was the teachers who addressed me the most and who never seemed to forget my presence.

While most participants seemed fine with being observed and recorded, others were bothered by the individual microphones, especially in grades 5 and 7. A couple of participants in grade 7 switched off their mp3 recorders for long periods of time, and later dropped out of the study. However, most participants seemed to become used to their microphones after a while. Several of them only commented on being recorded after saying something inappropriate, like a swear word. It was my impression that embarrassed laughter and obvious references to the recording equipment diminished over time. Some students even said that they had forgotten their microphones, for example if they started singing. However, the very presence of a stranger in the classroom did influence the students' behaviour. According to the teacher in grade 5 and 8, the younger students behaved like they usually did, but were gigglier. The grade 8 students were more guarded and did not swear as much as they usually did. That said, as long as the researcher views themself as a co-creator of the situation, Melander (2009) argues that their inevitable influence on the context does not have to be that problematic. Working in a constructionist paradigm, I view student actions and utterances as a reflection of the culture in which I am a part, and I believe my presence rather reinforced the already existing influence of the teacher. Just by being an additional adult in the classroom and therefore a potential representative of school norms, I may have enhanced the symbolic values of food, and students may have modified their behaviour accordingly. As a researcher, and known to some participants as a teacher, I may even have been seen an authority on the subject, much like the teacher. Both I and Lindblom, who gathered the data in the grade 9 groups, are both white, middle class, female, thin and, in my case, with a southern accent. This may also have reinforced any connection with a health Discourse.

Transcription and translation

When starting transcription, the researcher has to decide whether to transcribe speech according to written spelling rules or to do a more phonetically coloured transcription. Different traditions of analysis require different levels of detail: in conversation analysis, for example, there are strict rules on how to transcribe, where phenomena such as the length of pauses are considered relevant (Slotte-Lüttge, 2005). I did not need such detail for my analysis, and therefore transcription became more of a moral balancing act. I chose to transcribe more or less following standard spelling rules, but slang or dialect words without a fixed spelling in the standard language were written as they were said. Where there were several possibilities (for a discussion of this, see Melander, 2009), I chose the more informal or modern alternative.

It can be argued that using standard spelling makes speech less authentic, and while I certainly appreciate the relevance of such arguments, I based my choice to adhere to written conventions on three arguments: firstly, there is always a risk of transcribing dialects or sociolects close to the researcher's own as closer to standard written language than other varieties. Secondly, setting the boundaries for phonetical transcription seems arbitrary at best, since almost no words are pronounced exactly as they are spelled in any dialect or sociolect. Certain words even change their meaning when spelled phonetically, as is the case with homophones that are not synonyms. Moreover, in choosing a phonetic transcription, I would have to take into account phenomena like speech impediments and immigrant accents, which would not only make the text well-nigh impossible to decipher but also represent certain speakers as inferior. Finally, such specific ways of speech would also have made it easier to identify participants. Therefore I decided that a phonetic transcription would be at best arbitrary and at worst discriminating, condescending and ethnocentric.

Since the method of analysis focused in part on the details of language use, the fact that the results and the quotations are translated is a potential problem. Not only do surface 'synonyms' in different languages have very different connotations for speakers, but things like intonation, stress, slang, dialect, and word order are different in Swedish and English. This meant that some linguistic features were impossible to translate, and grammatical units like subjects and deictics could change when they were translated into idiomatic English. However, the big 'D' Discourses were still the same, and I translated the quotations with a view to conveying them rather than being entirely true to the original linguistic form.

Interpretation rights

A Discourse is the construction of the researcher, at the same time that it is based on social 'facts'. Thus the Discourse can be said to exist insofar as we view participant utterances as 'symptoms' of an underlying structure. But in the end, it is the researcher who delineates and names the Discourse, which gives them power over the participants. My identity as an ethnically Swedish, middle class cis female dietitian and HCS teacher make me an insider in the food and health community, and gives me access to a powerful scientific Discourse that suppresses other forms of knowing. It also has an impact on the results, simply because I bring my own worldview into the analysis. My supervisors and doctoral colleague, with whom I discussed interpretations, were also female academics with backgrounds in teaching, HCS, dietetics, and sociology. By imposing our interpretations on participant's utterances, then, I am wielding academic power and forcing their realities into a scientific

Discourse that gives meaning to a world I do not fully inhabit, even though I am familiar with it. In short, I use participants' voices to strengthen my own. This is an inevitable part of research, unless participants analyse their own talk. To compensate, I have tried to be respectful and to retain authenticity in quotations and interpretations, which has been possible because I am also a partial insider of the context I have observed and analysed. As a lifetime resident of northern Sweden, I have non-research knowledge of the culture, which gives me some authority to interpret participants' actions and utterances. However, I am also an outsider in that my parents are both from the south, which means that I may be more able to question said culture than those who are completely steeped in it.

Credibility, transferability, dependability and confirmability

The results of my studies are credible or believable from the perspective of the participants in the research, since it is from their perspective that I describe the phenomena in this dissertation. For this reason, some qualitative researchers argue for going back to the participants and having them assess the truth value of the results (Graneheim & Lundman, 2004). However, in this case, the participants are mainly students of between ten and 16 years of age, which means that they have become much older by the time the analysis is done and may not remember much from the time the observations were carried out. Moreover, adolescents are in a rebellious phase where they may deny the 'truth' of the analysis just to be funny or contrarian. Because of this, I have chosen to let the results stand on their own, and the reader is invited to judge the credibility of the studies instead.

To facilitate transferability of the results, a detailed description of the context, methods, and theoretical underpinnings of the studies was provided in the Methods chapter, so that the reader can draw their own conclusions about whether the results can be transferred to another context. Some aspects may be very specific to HCS, such as the emphasis on evaluation and grades, but transferability is strengthened by the fact that the other Discourses accurately reflect both current societal debate and earlier research on food sociology. That said, repeating the study in a southern, urban area might yield different results, and would be an interesting focus for further research.

The results are dependable in that I have been transparent about the national curricula and syllabi in use for the different groups, and by discussing how some things may have changed since the time of the study. I have also described the contents of each lesson and how my own background may have influenced the study.

Finally, confirmability has to do with how others can confirm that the results follow logically from the data and the method of analysis. To attain this, I have shown partial analyses of utterances both in the articles and in the dissertation text to clarify how each step in the analytic process built on others, finally leading to the creation of the Discourses. During the process, I discussed my findings with my supervisors, who questioned and forced me to refine them. In the articles, I have also taken pains to present deviant cases and explain how they can be understood in relation to the dominant Discourses.

The dissertation genre

Having discussed all these potential problems and declared how I have worked to minimize distortion of the data, I have to finish with a note on genre. The thing is that after five years of doctoral studies, what I have mainly learned is how to use a scientific Discourse. Many of the thoughts and conclusions in this dissertation have been with me from the start – a good example is that during my very first semester, I intuitively divided food choice into the very aspects I would later find in Belasco's (2008) model. What I did not have at the time was the right nomenclature to be taken seriously by other academics.

To write a dissertation, then, is to construct a story that makes sense within a genre, rather than reflecting some objective kind of 'reality'. Just for fun, let us compare it to the romance novel genre. In order for a novel to be considered a romance, it needs a couple or more main characters whose journey towards a relationship is the central content of the story. There needs to be obstacles on the way, but a happily-ever-after (HEA) or happy-for-now (HFN) ending. If these components are not included, it is not a romance. In the same way, a dissertation needs, among other things, a clear separation between results and discussion, where the results should state 'facts', and the discussion involves opinion, earlier research, and theory. If these requirements are not fulfilled, the text does not conform to the genre, and is therefore not a dissertation – even though everything in the analysis holds good.

Then there are the romance subgenres that signal what the reader can expect more specifically, such as paranormal, contemporary, space opera, or sweet and wholesome. Within these subgenres, there are rules for what language to use and what tropes to include, and these rules are more important than writing something that mirrors reality. Thus a sweet and wholesome romance might have more flowery language than a more erotic subgenre – and so it is with research. You have to keep to your genre and use the right words. If you choose the Discourse subgenre and then start using words like 'attitude' and

'lived experience', the reader will dismiss your dissertation for violating the rules.

So what is truth? I cannot help but think that the more a researcher tweaks the text to fit the theory/genre, the further from reality with its endless complexity they come. I cannot change this, but I am aware of my dissertation being a part of yet another Discourse, the scientific one, and that this powerful form is allowed to dominate more everyday Discourses. In the end, what I have spent these five years on is to learn the tropes and the language of a specific subgenre in scientific writing, so that I can explain to academics what the man on the street already knows – namely, that physical and psychosocial health do not always match.

And of course, just like a romance novel, a dissertation needs a HEA, which in research language is called a conclusion.

6. Conclusion

Two powerful potential opposites meet in the HCS classroom: normality and responsibility. On the one hand, there was sensory preferences, culture, and social rituals, and on the other, there was learning about health for the sake of evaluation.

The first study showed that unless evaluation was in play, students based their choice of vegetables on cultural and sensory Discourses. Teachers generally had authority on cultural traditions, but not on taste, and specific assignments were needed to make participants use the health Discourse. Vegetables were either seen as optional side dishes, which made them easy to avoid, or as integral parts of a recipe or tradition, which made them hard to avoid.

The second study showed the centrality of meat, and how this centrality made it difficult to cut down on. Even proponents of a decreased consumption used the centrality Discourse, thereby making it seem difficult and dangerous. There was a relatively exaggerated focus on protein: too much meat was seen as dangerous, but so was too little. Meat was also used socially as a relationship builder.

In the third study, vegetarian food was seen as an absence of meat, as deviant, and as an unattainable ideal. These Discourses restricted some students' access to vegetarian food, because they were required to identify as vegetarians. Vegetarian food was also constructed as limited to the HCS lesson and not part of a normal diet. It was seen as ideal from a health, ethical, and environmental standpoint, but also as nutritionally lacking, socially difficult and devoid of pleasure.

The fourth study revealed that sweet foods were seen as a treasure, but also as an unnecessary extra. Homemade varieties were superior, and too much or the wrong kind of sweet foods could elicit disgust and be seen as dangerous. Participants could bond and share through sweet foods, but also police, ostracize, and denigrate each other. Conflicts could arise around perfect results and fair amounts.

In summary, aspects of normality could make 'healthy' food choices difficult, because identity, a conflicted health Discourse, and too-strict ideals barred some people access to responsibility. On the other hand, some people were excluded from normality itself, notably vegetarians and teachers, who were either seen as deviant eaters or had to balance state-sanctioned goals that could clash with local norms.

To counteract such problems, teachers can 1) focus on sensory experiences, experimental cooking methods, and already popular foods 2) challenge normality by the way they speak about and handle different types of food, 3) make cooking and eating more communal and socially inclusive, 4) explore the psychosocial dimension of health on the same level as the physical dimension, and 5) make sure they do not grade students' cultural backgrounds, social identities, or taste preferences. This might go some way towards empowering students to make informed choices about food and health.

Unfortunately, the deconstruction of powerful Discourses may be easier said than done, since making social norms salient may strengthen student identification with them. Also, my suggestions for a transformed practice presuppose generous conditions of convenience in the form of a sufficient budget, lesson time, and storage space, decisions which are largely out of the HCS teacher's control. However, I strongly encourage further research that builds on my results by studying what happens if the taken-for-granted Discourses of normality and responsibility are consciously challenged in HCS. Maybe by consciously working with student backgrounds and diverse local and global traditions, students can develop taste palettes and cooking skills that truly enable them to make informed food choices that harmonize with their personal sense of normality.

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Rush… thank you for playing *Bravado* in London. You made me understand that it was okay to give up – but also that it was okay to finish something that might not be Wittgenstein, but still had some kind of merit. So here it is, this less-than-perfect Thing, and the confusion of *Vital Signs* is over.

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