‘Healthism’ and public health in the Norwegian welfare state

A discursive theory of science approach to the translation of public health science and policy into practice

Helene Nilsen

Thesis for the degree of Philosophiae Doctor (PhD)
University of Bergen, Norway
2021

UNIVERSITY OF BERGEN

‘Healthism’ and public health in the Norwegian welfare state

A discursive theory of science approach to the translation of public health science and policy into practice

Helene Nilsen

Thesis for the degree of Philosophiae Doctor (PhD)

at the University of Bergen

Date of defense: 19.02.2021

Year: 2021

Title: ‘Healthism’ and public health in the Norwegian welfare state

Name: Helene Nilsen

Print: Skipnes Kommunikasjon / University of Bergen

To my mother, who never taught me to be careful
To my father, who taught me never to explain my jokes

Centre for the Study of the Sciences and the Humanities, University of Bergen

Acknowledgements

Many people have been essential for this dissertation to come into being. I will not here be able to mention every single one of the colleagues, friends and family who have contributed in very different ways, but I want to give a special thanks to a few important contributors. First, my main supervisor Jan Reinert Karlsen for contributions to Paper I) and III) and for staying in continuous conversation throughout my PhD-period. To co-supervisor Matthias Kaiser for introducing me to the Eur-Safe community and for cultivating my understanding of Theory of Science. To co-supervisor Merle Jacob for contributions on Paper III) and for whipping the project into shape at the later stages of the process. To the academic SVT community including Gunnar Skirbekk, Ragnar Fjelland, Roger Strand, Torjus Midtgarden, Thorvald Sirnes, Rasmus Slaattelid, Kjetil Rommetveit, Jeroen van der Sluijs, Silvio Funtowicz, Bruna De Marchi, Andrea Saltelli, Mimi Lam, Henrik Berg, Anne Blanchard Bremer, Scott Bremer, Nora Sørensen Vaage, Silje Aambø Langvatn, for readings, feedback, cooperation, discussions and for providing a wonderful academic community. A special thanks to Roger Strand for his general and generous collegiality and to Henrik Berg for very entertaining contributions to my academic bildung during our time as office mates in Allégaten 34. To the admin staff Tone Lund-Olsen, Judith Ann Larsen, Idunn Tandstad, Line Nævdal, Sigrid Sandal, Nina Bergheim Dahl, Janne Bjorheim Bøe and Signe Solberg for all your help and support. To the PhD-group including Dafne Lemus, Laura Drivdal, Elisabeth Schøyen Jensen, Thor Olav Iversen, Emma Jane Lord, Ingrid Foss Ballo, Sissel Småland Aasheim and Zora Kovacic for academic TLC and for improving Paper II) through your constructive feedback. I consider you all my friends.

I also want to thank Jan Reinert Karlsen for organizing the reading seminar on suffering, and all of the participants for enormously thought-provoking readings and discussions, and also Ingrid Brice Müftüoglu for a much-needed intellectual vitamin shot at a critical stage.

Thanks to the exquisite bands Kvit Skit and Foreningen for by og bygd for invaluable contributions to the maintenance of my sanity, to Silje Bergesen for support, to Karen Louise Grova Søilen and Oda Elisabeth Wiese Tvedt for companionship as well as sharp readings of my work, and to János in Karasjok for providing the perfect set-up for the finalization of this work. Last but not least: Thanks to my brother Stig Berge and to Silje-Christin, Anna Johanne and Niklas Berge for staying close although we are a ways apart.

Abstract

This dissertation employs discourse analytic reading strategies in order to examine lifestyle intervention as knowledge practices realizing public health science and policy in the Norwegian welfare state. It addresses a concrete intervention – the Public Health Project in Kindergartens in Grorud Valley, a suburb to the Norwegian capitol Oslo – which was piloted in 2013 and expanded in 2017. The intervention's objective was to improve diet and physical activity in kindergartens as a means to address issues of social inequity in health. As it is a part of a broader cross-sectoral urban development project addressing living conditions and social equity in Grorud Valley, this intervention constitutes a good instantiating case for studying the comprehensive and social governance of public health. The material studied in this dissertation is particularly suited to address the well-known public health dilemma of navigating social determinants for health on the one hand, and modifying individual habits – lifestyle – on the other. Furthermore, it opens for a discussion of the social welfare state conundrum of state responsibility for the population's health *vis-á-vis* values of individual autonomy.

The approach taken in this dissertation is a specific brand of Theory of Science – vitenskapsteori (VT) – as it is practiced at SVT where this dissertation is situated. By examining the intervention in terms of validity, accountability and legitimacy, the objective has been to open up the 'black box' of public health work as knowledge practices in order to render its basic assumptions open for general discussion. This is also a means to illuminate broader social implications of these practices. A central focus within the VT approach is the problematization of what knowledge practices can and cannot deliver. This means that a VT approach carries with it a focus on critical reflexivity. In this dissertation, the VT approach to critical reflexivity is also applied on critical scholarship itself.

Paper I) in this dissertation addresses the normative implications of 'healthism' as a critical concept and finds that the contextualization of health practices may challenge assumptions inherent to this concept, particularly insofar as 'healthism' tends to be connected to a 'neoliberal rationality' in critical scholarship. Paper II) examines the meaning of 'social inequity in health' (SIiH) as it travels from national public health agendas through local strategies and on to practical realization and evaluation. A central finding is that the complexity and reflexivity promulgated at policy level is lost in translation during implementation. In the intervention, the imperative of addressing SIiH rather comes to justify a knowledge hierarchy where individual values and preferences are in effect subjugated in favor of a particular public

health perspective of healthy diet and physical activity. Paper II) also finds that the problem definitions of SIiH changes through administrative levels in a way that makes it difficult to demarcate the parameters for quality and 'success'. Paper III) addresses the quantification of physical activity as evidence-based practice. Examining the evidence base of the intervention, Paper III) finds that the rationale for quantifying physical activity rests on a coupling between 'health' and 'lifestyle' established at policy level. A central finding in Paper III) is that the quantification of physical activity is framed interchangeably in two different ways: as 'evidence-based practice' and as 'knowledge production'. In consequence, the validity and accountability of the intervention become elusive.

These findings open for a discussion of a) tensions in quantitative evidence as quality measure, and b) tensions in the governance of social inequity in health in the welfare state. The normative conclusion is that a space for critical reflexivity is needed in public health practice and subsequent evaluation in order to address these tensions. This normative conclusion realizes a problem of self-reference on the part of this dissertation. Therefore, time and space are allocated in the introductory chapter to account for the normativity, limits and prospects of the critical VT approach taken in this work.

Sammendrag

Denne avhandlingen benytter diskursanalytiske lesestrategier for å undersøke livsstilsintervensjon som kunnskapspraksis og som realisering av folkehelsekunnskap og -politikk i den norske velferdsstaten. Den tar utgangspunkt i en konkret intervensjon: Folkehelseprosjekt i barnehager, som ble gjennomført som pilotprosjekt ved tre barnehager i Groruddalen i Oslo i 2013 og rullet ut i større skala i 2017. Formålet med intervensjonen som denne avhandlingen tar for seg, var å forbedre kosthold og fysisk aktivitet i barnehager som et tiltak for å bekjempe sosial ulikhet i helse. Prosjektet egner seg spesielt godt som forskingsobjekt fordi det hører til under det overordnede tverrsektorielle områdeløftprosjektet Groruddalssatsingen som inntar et helhetsperspektiv for å bekjempe sosiale forskjeller i levekår og helse. Derfor er prosjektet godt egnet til å belyse spesielt to dilemmaer som kjennetegner folkehelsearbeid i velferdsstaten: forholdet mellom livsstil på den ene siden og sosiale forutsetninger for helse på den andre siden, og forholdet mellom velferdsstaten og individet når det gjelder ansvar for befolkningens helse.

Forskningsperspektivet i denne avhandlingen springer ut av det som til en viss grad kan sies å være en særskandinavisk form for vitenskapsteori. Ved å undersøke intervensjonen i lys av stikkordene validitet, etterprøvbarhet og legitimitet, søker avhandlingen å åpne opp det som ofte blir referert til som kunnskapspraksisers 'black box'. Slik kan fundamentale antagelser som informerer denne typen arbeid bli *gjenstand for* diskusjon snarere enn *premisser for* diskusjon. Denne tilnærmingen gjør det også mulig å diskutere folkehelsearbeidets bredere sosiale implikasjoner. Et sentralt spørsmål i en vitenskapsteoretisk tilnærming, er den spesialiserte kunnskapens begrensninger. Dette innebærer et fokus på kritisk refleksivitet. I denne avhandlingen blir kravet om kritisk refleksivitet også vendt mot kritikken selv.

Artikkel I) tar for seg de normative implikasjonene i det kritiske begrepet 'healthism' og finner at kontekstualisering av helsepraksiser kan gjøre forskningsobjektet i stand til å utfordre iboende antakelser i 'healthism'-begrepet. Dette gjelder spesielt i den grad 'healthism' i kritisk forskning blir brukt som en analytisk snarvei til å påpeke 'neoliberal rasjonalitet' i folkehelsepraksiser. Artikkel II) undersøker betydningen av 'sosial ulikhet i helse' (social inequiaty in health – SIiH) og meningsendringen som finner sted i prosessen fra nasjonale stortingsmeldinger via lokale folkehelsestrategier og finner sitt utløp i praktisk realisering og evaluering. Det er et sentralt funn i denne artikkelen at refleksiviteten og kompleksiteten som blir fremhevet på politisk nivå, ser ut til å gå tapt idet de politiske strategiene settes ut i live. I

stedet kan det overordnede målet om å bekjempe SIiH sies å fungere som en rettferdiggjøring av et kunnskapshierarki hvor individuelle verdier og preferanser undergraves til fordel for et bestemt 'folkehelseperspektiv' som dreier rundt kosthold og fysisk aktivitet. Artikkel II) finner også en endring i problemdefinisjonene av SIiH i prosessen fra politikk til praksis som gjør det vanskelig å sette fingeren på hva det er som skal utgjøre kriterier for 'kvalitet' og 'suksess' i evalueringen av disse praksisene. Artikkel III) tar for seg kvantifisering av fysisk aktivitet som 'evidensbasert praksis'. Ved å undersøke intervensjonens kunnskapsbase, finner artikkelen at rasjonalet bak kvantifiseringen av fysisk aktivitet hviler på en kobling mellom 'helse' og 'livsstil' som oppstår på nasjonalt politisk nivå. Et sentralt funn i Artikkel III) er at kvantifiseringen av fysisk aktivitet på samme tid blir fremstilt som 'evidensbasert praksis' og som 'kunnskapsproduksjon'. Når disse forståelsene blir brukt om hverandre, blir det vanskelig å vurdere disse praksisenes etterprøvbarhet, validitet og legitimitet.

Funnene i disse artiklene åpner for en diskusjon om a) spenninger knyttet til bruken av kvantitative data som kvalitetsmarkør og b) spenninger knyttet til styring av sosial ulikhet i helse i velferdsstaten. Avhandlingens normative konklusjon er at det trengs et rom for kritisk refleksivitet i folkehelsepraksiser og i vurderingen av disse for å imøtegå disse spenningene. Denne normative konklusjonen fører med seg det som er kjent som selvreferanseproblemet i kritisk forskning. For å håndtere dette problemet, settes det av god plass til å gjøre rede for normativiteten, begrensingene og potensialet som ligger i denne avhandlingens egen tilnærming.

List of papers

Paper I) Helene Nilsen and Jan Reinert Karlsen: "Towards an analytics of healthism – An epistemological discussion of a critical concept"
(To be submitted to *Critical Public Health*)

Paper II) Helene Nilsen: The Unstable Meaning of 'Social Inequity in Health': a study of a Norwegian public health intervention from political outline to implementation and evaluation
(To be submitted to *Health - An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine*)

Paper III) Helene Nilsen, Merle Jacob, Jan Reinert Karlsen: "To what extent are interventions addressing physical activity in children evidence-based? – A frame analysis of a Norwegian public health project in kindergartens"
(To be submitted to *Science, Technology and Human Values*)

Table of contents

1. Introduction

Public health is an area of governance that approaches the population's everyday lives both directly and indirectly. This can particularly be observed in social welfare states such as Norway, where public health influences policy development and implementation in a number of societal sectors, public institutions, and civil society. The governance of public health in Norway is carried out on several platforms. The Public Health Act (Folkehelseloven) of 2012 juridically anchored public health in a broader social perspective through its purpose of "contributing to a societal development which promotes public health, including social health inequities". The Norwegian state has access to the population through a range of public institutions. In recent years, kindergartens have become an important locus for state initiated preventive and promotive health measures. These initiatives are informed by the premise that healthy behavior, such as healthy eating and physical activity, should be established in the early years of childhood (WHO 2016). In Norway, the goals and techniques of health promotion and disease prevention are rarely subjected to systematic critical scrutiny (Fugelli 2006). One reason for this might be that 'healthy living' is often, at least in the public sphere, presented as a rather self-evident and straightforward idea, particularly pertaining to practices such as diet and physical activity and reducing alcohol intake and smoking. It may also be understood as an expression of a tendency in the Norwegian population to perceive responsibility for health as an inter-dependent relationship between the state and the individual (Hervik and Thurston 2016), so that state initiated public health efforts hold a high degree of trust in the population. The project of governing the population's health operates in an intersection between 'lifestyle choices' and healthy living, on the one hand, and broader social structures affecting the population's health – such as living conditions and social status – on the other (Lupton 1995). This complex starting point carries a range of assumptions and implications; public health operates upon and within a complex web of values informing both personal and professional

health practices while engaging numerous perspectives, disciplines, and professions, sometimes working together, other times working independently of each other. As a result, 'public health' can in itself be an elusive entity (Mackenzie 2008).

Considering the complex domain of public health work, this dissertation argues that there is a place for epistemic curiosity and need for critical examination of public health practices in order to understand how this complexity is played out in concrete interventions, especially insofar as they appear as knowledge practices realizing political agendas. For these purposes, preventive practices are particularly relevant as a research focus. Public health initiatives in kindergartens are informed by a premise of disease prevention through early intervention. The monitoring and modification of 'healthy behavior' in children through the institution of kindergartens call for critical examination of the assumptions and implications of health practices and of how the project of governing the public's health is pursued in policy and practical implementation. Engaging in such a critical endeavor, it is, however, necessary to probe further into questions about what criticism can and cannot deliver, and to examine how criticism can be pursued in a constructive and reflexive manner.

While there is no extensive corpus of critical examinations of such public health practices in the Norwegian context, a growing body of critical literature engages with the social implications of public health science and policy elsewhere, particularly in the U.S. This literature often engages with health practices from a Foucauldian perspective (see sections 3.1. and 5.1 in this introductory chapter). A central focus of this type of criticism is how the relationship between 'healthy living' and 'moral living' as an imperative of health is seen as increasingly permeating the social and political sphere. Such studies have been able to disclose and articulate non-problematized normative assumptions embedded in both quantitative and qualitative research on the social implications of health practices. Critical perspectives on social phenomena such as public health are, however, context sensitive. This means that critical

analysis of public health practices within a Norwegian welfare state context cannot necessarily proceed from concepts and perspectives forged in e.g. a US context. A corollary of this is that analytical concepts themselves need to be critically examined in order to be employed constructively.

The approach taken in this dissertation is one of Theory of Science ('Vitenskapsteori' (VT) in Norwegian – see sections 2.2. and 5.2. for an elaboration of VT). Hence, its point of departure is informed by key interests in knowledge claims and their validity; contextualization of central concepts and definitions informing public health science, policy and practice; a focus on the workings of complexity; and an interest in reflexivity. The objective of this dissertation is to open up the 'black box' of Norwegian public health science, policy, and practice so that underlying assumptions and their realization in practice may themselves become objects of scrutiny and discussion. While this is not a task that can be tackled comprehensively in a single doctoral dissertation, the work in this dissertation lays the ground for a contextualized expansion of a critically informed debate about public health as a complex normative enterprise. It is an attempt to show how this can be done both critically and constructively while, at the same time, recognizing that one single perspective or approach cannot achieve such an undertaking in any comprehensive way. The VT approach in this dissertation is directed towards the validity, accountability and legitimacy of public health science, policy and practice.

Investigating public health practice as implementing public health science and policy, this dissertation examines a public health intervention targeting kindergartens in Grorud Valley (2013-2017), a suburb to the Norwegian capitol, Oslo. The reason for this choice of material is that the intervention is a part of a greater cross-sectoral urban development project in this area (Oslo Municipality and the Ministries 2016). The overarching urban development project is prestigious and state of the art, aiming to address living conditions and health status from a range of different angles at the same time. It is therefore a good instantiating case of a

comprehensive welfare state approach to public health. While the urban development project has been subjected to both public debate and formal evaluation in several stages, there is a lack of systematic reflection on knowledge claims, values and disciplinary perspectives informing public health policy and practice, and how these are translated into real life practices that affect everyday lives. A Theory of Science approach allows for an examination of knowledge practices as both *process* and *product*. Hence, it is able to address the basic premises of public health practice and assess these practices beyond questions of goal achievement.

The three papers making up this dissertation aim to realize the Theory of Science approach from three angles. Paper I) engages in a theoretical discussion of the critical concept of 'healthism' by treating it as an 'analytics' (Dean 1999) rather than as a comprehensive explanatory device. The choice of examining the concept of healthism was motivated by an immediate observation of this concept's critical potential: It directs the focus towards the values informing public health practice. However, in order to realize its analytical potential, the concept of healthism needed to be disentangled from some of its broader ideological implications. Paper I) is concerned with the normative assumptions of critical terminology. Unpacking the concept of healthism, the paper illuminates the epistemological limitations of this critical concept. Therefore, it contributes a Theory of Science approach to methodological and epistemological reflexivity within critical scholarship. Paper II) employs analytical concepts from Laclau and Mouffe's (2001/1985; see also Jørgensen and Philips 2002) discourse theory in an examination of the practical implementation of public health policy. It addresses the question: How does the meaning of 'social inequity in health' change in the process from public health policy to practical implementation and evaluation? Focusing particularly on specific problem definitions as they appear on administrative levels from top to bottom, Paper II) makes use of discourse analysis as a way of contextualizing and examining the practical implementation of political visions. This take on discourse analysis also coincides with a

Theory of Science approach by making the problem definitions – i.e. the premises for discussion – objects of scrutiny and discussion (Engebretsen and Heggen 2012). Paper III) employs frame theory (Goffman 1974; Rein and Schön 1977; van Hulst and Yanow 2016) in an examination of the use of 'evidence-based practice'. It poses the question: To what extent are interventions addressing physical activity in children evidence-based? In this paper, the practice of quantifying physical activity as well as the evidence base informing this practice, are investigated with a focus on what purpose they serve. Frame analysis here functions as a way of opening up a Theory of Science examination of knowledge claims and their validity.

The adopted approach has led to a number of insights: Paper I) finds a tension in the development and use of the concept of healthism: Healthism is simultaneously used as an explanatory device and as an analytical tool. As an explanatory device, the concept of healthism has been employed as a diagnose of two very different phenomena: excessive individualization of the problem of health (Crawford 1980) and totalitarian institutional paternalism (Skrabanek 1994a). Paper I) therefore argues that healthism is more useful as an analytics (Dean 1999). It is a central argument in Paper I) that it is necessary to separate between the analytical functions of this critical concept on the one hand, and the social context within which it is developed on the other. Observing a conflation between 'healthism' and 'neoliberalism' in more recent scholarship, Paper I) argues that this conflation carries with it a range of presuppositions that may result in a critical analysis that misses its target. Therefore, it discusses the concept of healthism against illustrative empirical examples from a Norwegian welfare state context. This exercise makes visible how contextualization of health practices may challenge assumptions inherent to the critical concept of healthism.

Paper II) finds that the public health policy vision of addressing social inequity in health sees a change in meaning as it travels through different levels of administration. While a focus on social inequity informs a perspective emphasizing complexity and social determinants for

health on policy level, this consciousness about complexity seems to be lost in evaluation and reporting practices at the level of practical realization in the material studied in this dissertation. Within the specific intervention, the greater cause of disease prevention as a project of social justice comes to inform a knowledge hierarchy where 'the public health perspective' subjugates individual differences such as values and preferences. The examination of the changing problem definitions of 'social inequity in health' from policy to practice also sheds lights on how commissioned and internal evaluations are not designed to address the relationship between political visions and their realization in practice. Paper II) therefore provides a platform for discussing the legitimacy of intervention, which is missing in current modes of evaluation.

Paper III) finds that that the quantification of physical activity as a health promoting project rests on a coupling between lifestyle and health. A quantified understanding of physical activity means that qualitative differences in children's behavior receive less attention. Furthermore, it finds that 'evidence-based' in the intervention is simultaneously framed as 'evidence-based practice' (i.e. practice anchored in available evidence) and as 'knowledge production' (i.e. a project of generating evidence). This distinction illuminates a central problem pertaining to the function of the quantification of physical activity in the intervention: Within the framing of 'evidence-based practice,' quantification is used normatively: it provides a standard for physical activity. Within the framing of 'knowledge production', quantification is used descriptively as an indicator of goal achievement i.e. quality. When these two framings are used interchangeably, the objective of the intervention becomes blurred. In consequence, the validity and accountability of the intervention become elusive. This is problematic because it makes it difficult to assess the limits to the quantification of physical activity as a means to achieve health, and also difficult to discuss the broader implications of such practices in a kindergarten context.

While these three papers can be read as independent research contributions, they are also complementary. In sum, they address the relationship between science, policy, practice, and criticism in and of public health. A central approach that the three papers have in common, is that the examinations take as their point of departure the self-understanding of critical scholars (Paper I – see also 5.1 and 5.2. below) and public health actors (Papers II and III) as it is represented in explications of their projects and objectives. Therefore, the approach in this dissertation contributes a perspective which is able to problematize the validity, accountability, and legitimacy of both critical scholarship and public health practice in a contextualized manner.

The rest of this introductory chapter is structured in a somewhat hermeneutic fashion. The reason for this lack of linearity is that the different sections in this chapter draw on each other as they illuminate the different, yet intertwined epistemological, methodological, and analytical approaches that have gone into the work with this dissertation. In the section following immediately after this, I will account for the social as well as the institutional backdrop of this dissertation in order to situate and contextualize my work. In this section, I also introduce the specific Theory of Science perspective – vitenskapsteori (VT) – which constitutes the epistemic foundation of this dissertation. After that, in section 3., I will situate my dissertation in relation to previous research on social aspects on public health science and policy. This section forms the basis for the discussion of my findings later on in this introductory chapter. From there, I go on to introduce the background and context, methods and materials and analytical frameworks that have informed the three papers in section 4. I do this in order to clarify the concrete research objects of this dissertation. In section 5., I return to the topic of VT in relation to the field of Critical Nutrition Studies (CNS) as critical approaches in order to elaborate on the normative aspects of my critical approach and to address some theoretical challenges I have encountered in the work with this dissertation, which I find

important and worthy of elaboration and reflection. Next, in section 6., I introduce the three papers in order to provide a coherent overview of this dissertation, and to prepare the ground for discussion and conclusions. In section 7., I pick up the thread from section 5. on VT and CNS in order to discuss and situate the perspective of this dissertation as 'critical research'. From this, I go on to discuss my findings in the light of previous research. I have categorized this part of the discussion in the following topics: a) tensions in the use of quantitative evidence as quality measure and b) tensions in the governance of social inequity in health in a welfare state and c) the potential role of critical reflexivity and scholarship in public health practice. After the discussion of my findings, follows a tentative conclusion along with an account of strengths, weaknesses and limitations of my approach, before I close this introductory chapter by way of suggestions for further research.

2. Background and research context

The purpose of this section is to clarify the background and research context within which the problem understandings addressed in this dissertation have been developed. As some of the societal structures addressed in Papers II) and III) may appear idiosyncratic to a reader not familiar with the Norwegian context, I briefly account for some features of the ideological landscape where Norwegian public health work operates. I also outline the role of kindergartens in Norwegian society generally and as sites increasingly being framed and acted upon from a public health perspective in order to clarify the context of the problem complex addressed in this dissertation. From here, I introduce the concept of healthism in order to clarify its relevance for this examination of Norwegian public health policy and implementation. I recognize that the following outline does not provide a comprehensive or exhaustive description of the

Norwegian welfare state, as the outlined matters represent a number of fields of study in their own right, and are subjected to both scholarly and public debate. By providing some illustrative examples as well as brief descriptions of central features of – and tensions within – Norway's social organization, I hope to familiarize the reader with the Norwegian context, at least to some degree, and to avert confusion. In this section, I will also outline the institutional research context within which this PhD-project has been situated, and the specific Theory of Science perspective that functions as an overarching epistemic approach of this dissertation. I do this in order to make the hermeneutic argument that constitutes this introductory chapter as clear as possible.

2.1 Public health in a social welfare state context

With WHO's Ottawa Charter (1986), social equity in health – understood as equal opportunities for all to fulfill their health potential (p. 1) – was established as a central goal for global public health. Under the title 'Health for all by 2020', social determinants for health – the circumstances which influence the population's ability to maintain health – gained a stronger foothold as a focus area for health promotion work. The Ottawa charter emphasizes 'health-in-all-policies' and cross-sectoral collaboration as central means to achieve social equity in health. Alongside the social focus on public health, there is broad global consensus that non-communicable diseases (NCDs) such as cardiovascular diseases, stroke, some types of cancers, diabetes, and chronic respiratory diseases are correlated to individual habits such as diet and physical activity (Gakidou et al. 2017). NCDs are seen as a great economic challenge because they are often chronic and require life-long treatment (Gluckman and Hanson 2012). Hence, a strong focus has been placed on prevention of these diseases. The focus on prevention rather

than treatment has been traced back to the 1970s and the rise of an epidemiologically inspired 'new public health movement' focusing on strategies of empowerment of the individual and on social determinants for health (Petersen and Lupton 1996).

In a Norwegian social democratic welfare state context (Vallgårda 2011a), public health policy promotes a focus on social determinants for health (Fosse 2011) and favors a cross-sectoral public health approach with health-in-all public policy areas (Raphael 2014). The goals of WHO's Ottawa charter therefore hold a relatively high status on the Norwegian public health agenda. Central to the Norwegian welfare state ideology are values of egalitarianism, (Hervik and Thurston 2016) and universal (as opposed to means-tested) rights to state-funded social security, education, and health care (Greve 2007). Comprehensive and social approaches to public health root back at least to the 1930s (Jensen and Kjærnes 1997). In spite of differences within Scandinavia (Vallgårda 2007), the Nordic countries have a distinctly social take on health care. This can be illustrated by observing the Trondheim Declaration[1], which was issued forth from the 11th Nordic Health Promotion Conference which took place in Trondheim, Norway in 2014. The conference assembled public health politicians, scholars, and practitioners representing the Nordic countries in the collaborative effort consisting of Iceland, Finland, Sweden, Denmark, and Norway. This conference resulted in the Trondheim Declaration titled "Equity in health and well-being – a political choice!" The declaration was signed by all of the attending Nordic countries (Britnell 2015). There is a strong social-democratic conviction running through the declaration in terms of values: "Health inequities are unacceptable and unjust and arise from the social and material conditions of human birth, adolescence, adulthood and old age" (Trondheim Declaration 2014 p. 2).

The notion of the state as a facilitator for health is strongly manifested in the declaration: "The right to health is fundamental. Resources and opportunities must be distributed so that

[1] The Trondheim Declaration has previously been publicly available but is no longer posted on the conference website. It was accessed and downloaded 15.11.2014.

people can shape their lives according to their own desires and ambitions – for themselves and society" (p. 3). Reflected here is the idea that when the state acts as facilitator for public health, the expectation is that people will act for the good of themselves *and* for the good of society as a whole (see also Hervik and Thurston 2016). Public health is framed as a matter of structural conditions: "[w]e know that social inequalities in health which form a systematic pattern (gradient) through the whole population are caused by the unequal distribution of power, money, and resources in the society" (Trondheim Declaration p. 2). The declaration's suggestions for solving the problem of social inequity in health include resource allocation, structural organization, a focus on social networks and long-term planning, as well as an overall awareness of social equity in general public health work. At the same time, there is emphasis on more concrete practices: "[i]n order to be held accountable we need measurable goals to promote health and well-being with the intention to reduce social inequalities" (p. 3). The Trondheim Declaration sheds light on two central tensions motivating this dissertation: a) the relationship between state responsibility for health and individual autonomy in Norway as a social welfare state, and b) the relationship between comprehensive takes on public health as a social issue of equity on the one hand, and requirements of measurable practice on the other.

A central part of the Norwegian welfare model is highly subsidized childcare in the form of public kindergartens for children up to 5 years of age. Since its origin in 1975, public kindergartens have been developed into a universal public benefit which became a legal right in 2009 (Haug and Storø 2013; Ministry of Education and Research 2008). A central rationale for the universal right to childcare are values of social egalitarianism: equal rights to education, and universalism: that all children should be integrated within the same institutional framework (Haug and Storø 2013; Korsvold 2005). The social mandate of kindergartens is one of facilitating for personal development and cultivating individuals: "All kindergartens shall be a good arena for care, play, learning and bildung" (Ministry of Education 2012 p. 8). In addition

to their distinct social function in the Norwegian education system, kindergartens hold a key social position in Norwegian society, as they enable both parents to participate in work life (Haug and Storø 2013). Public kindergartens have also been used as a tool for social integration of immigrants, particularly through the effort of Free Core Time: an offer of 20 hours of free childcare per week targeting low income families in socially vulnerable areas. The intervention studied in this dissertation is encompassed by this initiative. Central objectives informing the Free Core Time initiative have been integration, social equity, and also the development of language skills, as well as social skills in preparation for entering the education system (Bråthen et al. 2014). Although considered a public benefit, the social expectation of attending kindergartens, in combination with the broad apparatus of welfare services and institutions, have been perceived as a form of social control and surveillance by the immigrant population (Tembo et al. 2020).

Considering the strong social position that public kindergartens hold in Norwegian society, it is particularly prudent to examine public health practices as they are played out within this institutional context. This relevance is amplified by a basic premise of 'early intervention' in the prevention of NCDs (WHO 2016). Based in this premise, kindergartens are increasingly becoming sites of health intervention (see e.g. Caroli et al. 2011). The prevention of NCDs through lifestyle modification in children arguably entails a reconfiguration of 'playing' to 'physical activity' (Alexander et al. 2014) and 'eating' to 'nutrition' (Karrebæk 2013). Here the previously mentioned concept of healthism comes into play. Concerned with the conceptualization of health as a pan-value, or 'super-value' (Crawford 1980; Zola 1977), the concept of healthism directs the analytical gaze towards what happens if behaviors or lifestyles are classified solely in terms of their assumed health-output. Taken to its extreme, healthism implies that other values or rationales informing behavior may become collapsed into an imperative of health which trumps other values or concerns. The quest for 'health' may thus

come to legitimize practices in and of itself, to the point where the actual health benefit becomes subordinate to the symbolic value of health that these practices represent. Furthermore, the idea that 'health outcome' becomes the primary lens through which any mode of living is perceived have more existential consequences if it entails a reduction of the understanding of potential ways of living one's life (Skrabanek 1994b)

While the concepts of medicalization and healthism root back to a school of radical criticism emerging in the 1970s (see e.g. Illich 1975; Zola 1977), the critical perspectives which they represent are not alien to more recent public health policy discourse. In a white paper outlining the Norwegian public health agenda, health awareness is problematized as a not unmitigated good. Under the headline 'Medicalization and risk focus,' the white paper warns that "there is a danger of increased medicalization where a perspective of disease envelopes an increasing amount of life's small and greater problems" (Ministry of Social Affairs 2002 p. 19). The white paper acknowledges that health awareness in the population may lead to healthier lifestyles. At the same time, it also notes a danger that a focus on "avoiding risk will itself … decrease the *joie de vivre* in the population" (p. 19). The official acknowledgment of this – essentially existential – dilemma on policy level, signals reflexivity towards the social and cultural implications of public health work. This reflexive insight is, however, not automatically transferrable to practice in any straightforward fashion. The white paper, notably, does not advise on what consequences this realization may have for public health intervention. In the material I have studied, the reflexivity promulgated by this problematization ultimately appears as rather noncommittal.

The problematization of the relationship between the population's health awareness and *joie de vivre* in the white paper speaks to a broader dilemma in welfare state governance concerning the state's responsibility for the population's health on the one hand, and the fundamental democratic value of individual autonomy on the other. In short: the relationship

between paternalism and liberty in a social democratic welfare state. The intricacies of this relationship can be illustrated by a recent incident in Norwegian media: In the spring of 2019, the Norwegian government appointed a Ministry for Elderly and Public Health. The new minister, representing the Progress Party (Fremskrittspartiet) – a libertarian right-wing party (by Norwegian standards) – was photographed smoking while drinking a diet soda, and famously declared that "Norwegians may smoke and drink and eat as much red meat as they want". What followed in the wake of this statement can perhaps best be described as a confused moral panic. While some applauded the rejection of paternalism and moralism in the public health office, others were enraged and claimed that "public health work was set back by 10 years with this statement" (Dagsrevyen NRK 06.05.2019). A news anchor paraphrased the Minister's statement, declaring that the Minister "rejects the moral police and claims that people *should be allowed* to smoke, drink, and eat as much red meat as they want" (Dagsnytt 18 NRK P2 07.05.2019, my italics). In the aftermath of the public outcry, some rightly pointed out that there really was nothing new to the Minister's statement, as the Norwegian government has never held the prerogative to allow or disallow the public's consumption of legal substances. On these grounds, we might see this incident as a case of solid political spinning with the intent of appealing to a specific segment of Norwegian voters: It sent a strong signal about valuing individual autonomy, without affecting practical policy in any concrete manner. Yet, the argument that a refusal on the part of public health officials to employ a morally framed rhetoric 'set back public health work 10 years' invites questions about public expectations towards normativity in the governance of public health.

The objections to the minister's statement implied that it was reproachable because it renounced the moral responsibility which is expected of officials in the Norwegian welfare state. One might ask whether this means that the public want or need state moralism or paternalism in order to stay healthy? Or is it rather a result of a welfare state context where

everyone shares the cost of health care, necessitating that the state takes the role of policing behavior to avoid moral hazard of undermining the broad legitimacy of welfare state funding provisions? It is beyond the scope of this thesis to provide an exhaustive answer to these questions. Notwithstanding, the fact that the minister's statement caused public debate, and that this controversy headlined in national news, illustrate the conundrum within welfare state governance when it comes to the role the state can or should play in the population's everyday life. This conundrum can be regarded as a necessary corollary of a strong social welfare state organization. It is not a claim in this dissertation that the tensions represented by the above example should be eradicated. They most probably cannot. The fundamental rationale for this dissertation is rather that these tensions necessitate continuous investigation and informed public debate. This means that the complexities of the knowledge and values that come into play in public health practice in a welfare state context need to be scrutinized and their basic components analyzed. In this sense, critical analysis is an inherent part of the dynamics of democracy.

2.2. Theoretical and institutional research context

In this section, I will outline the field of Theory of Science and also present the particularities of this field as it is approached at the Center for the Study of the Sciences and the Humanities (SVT) where this PhD-project has been situated. The approach of this dissertation is influenced by the institutional and academic context where it has been developed. A word for word translation of the Norwegian name of the center – Senter for vitenskapsteori – reads 'Center for Theory of Science'. There is no unified canon of Theory of Science; it is an open field of study with a range of disciplinary and interdisciplinary branches. In its broadest sense, Theory of

Science denotes a perspective which questions the premises and implications of science and technology, their role in influencing institutions and societal organization, the problems they are intended to solve, and the kinds of solutions – as well as the problems – they generate (see e.g. Wynne 1996). In the following I will venture a brief overview of the roots and branches of Theory of Science, well aware that mentioning a few contributors more or less guarantees that I will commit a not inconsiderable amount of sins of omission.

The philosophical anchoring of Theory of Science traces back to the *Metaphysics* of Aristotle; Galileo Galilei's contribution to the Copernican revolution; Newton's *Philosophiae Naturalis Principia Mathematica*; Descartes' deductive reasoning etc. Particularly a reappreciation of the conceptualization of progress and science which gained foothold in the Era of Enlightenment has been an ongoing preoccupation (Kaiser 2000). The Enlightenment ideology as it was further developed by the logical positivism, or empirical positivism, of the Vienna Circle has inspired philosophical controversy, most famously represented by Karl Popper's theory of falsification which addresses Hume's problem of induction (Popper 1963). Classics of the philosophy of science also include Thomas Kuhn's *The Structure of Scientific Revolutions* (2012/1963) and Paul Feyerabend's *Against Metho*d: *Outline of an anarchistic theory of knowledge* (1975).

The roots of Theory of Science also trace back to more sociological approaches such as the Frankfurter School (Krogh 1991) and its critical theory later developed by Jürgen Habermas, to Robert S. Merton's *Sociology of science: Theoretical and empirical investigations* (1973), and the movement of the Sociology of Scientific Knowledge (SSK), often represented by Bloor et al.'s 'strong programme' (see e.g. Barnes et al. 1996) which embraced a radical constructivism, questioning of the nature of 'truth'. More humanistic takes on the study of science include hermeneutic interpretation such as Hans-Georg Gadamer's *Reason in the Age of Science* (1976) and historical epistemology, such as Ludwig Fleck's (1935) *Genesis and*

Development of a Scientific fact, Georges Canguilhem's (1989/1966) *The Normal and the Pathological*, Michel Foucault's *The Archeology of Knowledge* (1972/1969).

Parallel to the development of SSK, feminist scholarship on science burgeoned. Drawing attention to gendered structures within science (see e.g. Wertheim 1995), feminist perspectives also shed light on natural science as gendered representation (see e.g. Haraway 1984) and developed a feminist standpoint criticism (see Harding 1986; Harding 1991; Haraway 1988). While disputes and controversy abound when it comes to the question of how to approach science as an object of study (see e.g. Hacking 1999), it is safe to say that the combination of sociological and humanistic takes on issues pertaining to science and technology constitutes the platform for Theory of Science. The relationship between natural science on the one hand and the social sciences and the humanities on the other, has in itself been subjected to controversies, most explicitly through C.P. Snow's Rede lecture "Two Cultures" (1959) and the American science wars, or culture wars, represented by the Sokal hoax of 1996 (Guillory 2002). Currently, the culture wars – this time through setting up a dichotomy between 'liberalism' and 'postmodernism' – have gained further momentum with the echo of the Sokal hoax and subsequent publication of *Cynical Theories: How Activist Scholarship Made Everything about Race, Gender, and Identity—and Why This Harms Everybody* (Pluckrose and Lindsay's 2020).

Sardar and van Loon (2011) operate with a distinction between 'high church' and 'low church' approaches to science studies (Strand 2019). The latter, represented by Spiegel-Rössing and de Solla Price (1977), refers to cross-disciplinary approaches to the relationship between science and society. The former refers to what is now known as Science and Technology Studies (STS) (Jasanoff et al. 2001) which treats science studies as a discipline more in its own right. One example of a low church approach is the epistemic tradition of Post-Normal Science (PNS) developed by Funtowicz and Ravetz (see Funtowicz and Ravetz 1990; Funtowicz and Ravetz

1993). PNS is adapted to assessing cases where "facts are uncertain, values in dispute, stakes high and decisions urgent" (Funtowicz and Ravetz 1991). The PNS perspective is particularly concerned with quality assessment and participatory knowledge production through extended peer-review processes (see e.g. Funtowicz and Ravetz 2001). PNS holds a strong position in the research community at SVT to which I now turn.

As an interdisciplinary unit, SVT springs out of and is situated within a local and specific institutional and epistemological tradition. In the 'about' section on the SVT website, this history is rendered in place of a comprehensive list of specific research orientations or disciplinary approaches (https://www.uib.no/en/svt/21651/history-centre). My reason for choosing the Norwegian terminology of 'vitenskapsteori' (VT) in this section and in the rest of this introductory chapter, is that 'vitenskap' in the Scandinavian languages denotes not only the natural sciences, but all of the academic disciplines, including the humanities and social sciences. VT can be defined in the negative: it is not a theory and it is not a vitenskap (science), nor is it a discipline in the traditional sense of the word. Skirbekk (2019) conceives of VT as a "practice and a competence rather than a doctrine" (p. 14). Also, VT has been informally referred to as a discourse; as a community; and even as a 'state of mind'. Strand (2019) provides an open, yet useful, definition:

> 'Vitenskapsteori' seems to be the name of a Scandinavian brand of interdisciplinary research on research that combines philosophy, history, sociology et cetera of science with STS, science policy studies and research ethics and research on ethical aspects of science. And science is to be taken in its broadest sense, including the humanities and social sciences (p. 4).

From this definition, we understand that VT refers to a spectrum of interdisciplinary meta-research combining methods and perspectives from a range of epistemic fields, and that it is anchored in a Scandinavian tradition. There are, however, differences between Scandinavian VT institutions. VT at the University of Gothenburg, for instance, closely connects VT to STS (https://flov.gu.se/amnen/vetenskapsteori). There are several crossovers between STS and VT.

However, while STS is definitely a part of SVT's research orientation, it is situated alongside a range of other orientations including, but not limited to, the Theory of Science perspectives outlined above, as well as more programmatic orientations such as Responsible Research and Innovation (RRI) or Ethical, Legal and Social Aspects of research (ELSA). These, along with the collection of disciplines which Strand (2019) lists above, are included in the diverse research practices at SVT. Strand's (2019) definition corresponds to and elaborates on the understanding of vitenskapsteori (VT) which was employed during its institutional conception at the 1975 Jeløya-Conference which later resulted in the founding of SVT in 1986.

The openness of VT as a research field lays the ground for problem-oriented – or transdisciplinary – research (see Gibbons et al. 1994): perspectives springing out of complex, real world problems rather than e.g. primarily theoretical problems. A central premise informing the VT perspective is the specialization of expertise and institutions in modern society (Skirbekk 2018). This specialization means that knowledge-practices may become closed black boxes, meaning that only the outcome, not the process, of knowledge production is accessible. A democratic project of VT is to open up "the black boxes of expertise and thereby rendering it accountable" (Strand 2019 p. 6). This project is necessarily a critical enterprise. A critical approach is necessarily normative, particularly in the starting point of analysis; in the act of defining the problem to be addressed. The act of defining a problem to be addressed rests on a set of normative assumptions or premises. These premises define the direction of the research questions, and therefore the kinds of answers that the research is able to produce. The theoretical perspective provided by a VT approach constitutes a normative epistemic framework which has informed this dissertation. In section 5.2. I will flesh out the local and specific VT approach as an epistemic framework with a particular focus on this normativity as it relates to this dissertation.

3. Previous research

In this section I will outline previous research on the science and policy of public health. Before I go on to present the literature, I will address some challenges connected to the VT approach. Studying the relationship between science, policy, and practice in public health from the point of view of VT means taking on an interdisciplinary meta-perspective on these practices. This poses practical challenges for literature searches because this perspective is rarely indexed according to standard keywords. Searches for *public health; *lifestyle; *intervention, are likely to produce results such as interventions which from the point of view of this dissertation would be *objects* of research rather than previous research. This issue is inherent to a problem-oriented VT approach: the research questions are motivated by a problem as it is perceived in the societal sphere, rather than motivated by lacuna in a specific field of research. The benefit of such an approach is that it is able to address the specificities of the research object, drawing on insights from a range of research fields. The disadvantage is that there is no clear and discernable research frontier constituting a coherent 'state of the art'. As a result, a literature review may appear piecemeal rather than comprehensive, and there is a great risk of overlooking relevant research, simply because the range of potentially relevant research fields is unlimited. While several journals have an interdisciplinary profile, no journals operate from the understanding of Theory of Science as it is practiced at SVT. This is a well-known problem in the SVT research community, and subject to continuous discussion. In the process of writing this dissertation, I have not found studies that take on what I would consider a VT approach to public health intervention This is not to say that no such study exists. Only that I have not been able to discover it. In the following, I outline previous research from adjacent fields as they relate to the project of this dissertation with a particular focus on research that approach the

science and policy of public health, discursive perspectives on health practices and research on public health intervention. I do this in order to situate my work in relation to overlapping perspectives.

3.1. Previous research on public health science and policy

A public health perspective targeting lifestyle entails a focus on risk factors rather than on disease (Armstrong 1995). This focus poses problems related to epidemiology. Critics from the field of social medicine have noted a 'black box' of causality in epidemiology and pointed out that the relative importance of lifestyle for health is an elusive entity (Skrabanek 1994a). A 'black hole' in public health has also been pointed out in that potential adverse effect of health promotion campaigns are rarely reported, though presumably, they are not non-existent (Fugelli 2006). The latter point is amplified by the observation that health promotion work, unlike medicine, does not operate with a universal or official set of ethical guidelines (Newdick 2017). Therefore, it is prudent to address issues of public health science and policy.

There are a number of ways in which to study the science and policy of public health. A burgeoning field in this regard is the interdisciplinary field of Fat studies (see e.g. Monaghan et al. 2013). In response to what WHO has declared as a global epidemic of obesity (WHO 2000) a range of critical scholarship has questioned whether obesity is indeed a global epidemic or rather a social construct (see Gard and Wright 2005). Within the field of Fat studies, the science informing the discourse on the obesity epidemic has been criticized for employing a simplified 'energy-balance model' (see Guthman 2011) and for relying on a flawed system of body categorization based in Body Mass Index (BMI = kg/m2), which calculates height to weight ratio, but does not inform on body composition (see Guthman 2013). Furthermore, the

epidemiological evidence for the harmful effect of excess fat has been questioned (Campos 2011). Scholars have argued that an excessive focus on body weight management may be detrimental to health (Campos 2004), and that obesity prevention represents a moral rather than a medical discourse (Daneski et al. 2010). Controversies within the field have opened up epistemological discussions about the relationship between science and society (Monaghan 2012). Within Fat studies or critical obesity studies, the embodiment of public health science and policy and its effect on identity are central foci (see LeBesco 2004; Mayes 2015). Obesity has, particularly within a wide range of post-structuralist feminist scholarship influenced by Susan Bordo (1993), been productively employed as a lens through which to examine broader societal and cultural tendencies.

Alongside Fat Studies, Health At Every Size (HEAS) (see Bacon 2010) has emerged; a cross-disciplinary movement which also has branches to Norway (Samdal and Meland 2018). Within the HEAS movement, adverse effects of weight focus are emphasized, while it is maintained that healthy living is a central value. From the perspective of Fat studies, studies have concluded that diet and physical activity are more important for health status than weight in and of itself, and that behavior should be prioritized over weight issues e.g. in policy (Mansfield and Rich 2013; Jutel 2001; Malterud and Tonstad 2009). While a focus on obesity and overweight is conspicuous in the Norwegian public sphere (Malterud and Ulriksen 2010) as well as in public health, it is not placed in the driver's seat in Norwegian public health agendas (Ministry of Social Affairs 2002; Ministry of Health and Care Services 2014). This dissertation picks up where Fat studies leaves off. As the intervention studied in this dissertation – the Public Health Project in Kindergartens (Dønnestad and Strandmyr 2014) – does not state obesity prevention as an explicit goal, it opens for an examination of what happens in a situation where behaviors such as physical activity and diet are modified beyond a rationale of overweight and obesity.

A second discursive take on public health practices is the school of thought following in the wake of the writings of Michel Foucault which has been prolific since the 1990s (Fadyl et al. 2012). Within this scholarship, practices pertaining to diet and physical activity have been understood as regimes governing bodies (Fullagar 2002; Johns and Tinning 2006; McCormack and Burrows 2015; Kristensen et al. 2016). Peterson and Lupton (1996) conceptualize the 'new' public health movement as regimes of knowledge and power within which the public regulate themselves on the basis of expert knowledge combined with a premise of personal autonomy (Rose 1999; Lupton 1995). Within particularly sociological research on health discourses, public health is examined as a site of knowledge and power which contribute to the shaping of individual identity (Armstrong and Murphy 2012), and the construction of subjects (Mayes 2014; Turrini 2015). The understanding of health practices as regimes of self-governance is often connected to broader socioeconomic and sociocultural tendencies through a conception of 'neoliberal governmentality' (Guthman 2011; Ayo 2012; Turrini 2015; Mayes 2015; Carter 2015). A Foucauldian take on health practices is also present within the emerging field of Critical Nutrition Studies (see Biltekoff 2012) which I will elaborate on in section 5.1. below. This dissertation does not approach diet and physical activity from the point of view of Foucauldian power-dimensions. It does, however, engage with this literature on a theoretical level by addressing epistemological issues pertaining to the use of concepts in critical research (Paper I). Furthermore, this dissertation provides an alternative lens to that of 'neoliberal governmentality' because it takes as its point of departure the welfare state's social responsibility for the population's health as it is professed in policy documents. By taking seriously the social approach to public health within the Norwegian welfare state, this dissertation contributes a supplementing perspective to the above-mentioned framework. It assesses public health practices within a context where social determinants for health hold a prominent position in. Hence, it is able to address practices occurring within a pronounced state

responsibility for health rather than approaching these practices as neoliberal regimes of self-governance where the responsibility for health is placed on the shoulders of the individual (see e.g. Ayo 2012).

An interdisciplinary examination of the science and policy of public health practices could also be done through historical conceptual analysis of concepts such as 'lifestyle' (Coreil et al. 1985; Vallgårda 2011b; Larsen 2011), 'health behavior' (Armstrong 2009), or 'health and wellbeing' (Cameron et al. 2008). While this dissertation examines discourses and meanings of concepts such as 'evidence based' (Paper III) and 'social equity in health' (Paper II), it operates on a lower level of abstraction by examining how these concepts work in practice. The relationship between public health science and policy could also be examined from the point of view of evidence-based policymaking (Greenhalgh and Russel 2009). Within such a framework, scholars have argued that treating policy-as-discourse (Shaw 2010) may illuminate the complex relationship between e.g. evidence, interests and values in health-related policymaking. This is particularly relevant insofar as health policy making is a matter of "framing and taming wicked problems" (Gibson 2003). Within a Scandinavian context, problem framings in public health policy have been studied to this effect (Vallgårda 2008; Vallgårda 2011a). While this dissertation is concerned with problem framings in policy (Paper II), it engages with policy from a different angle than the mentioned studies: rather than addressing the policy making process, it addresses the role of evidence and policy framings within concrete practices in a specific intervention.

3.2. Previous research on public health intervention

Qualitative studies have engaged with issues of implementing public health science and policy in intervention e.g. by studying participant responses to intervention (Ahlmark et al. 2016; Berg et al. 2019; Knutsen and Foss 2011; Smith and Holm 2011) and public health practitioners' perceptions of training and official requirements *vis a vis* participants' expectations (e.g. Andrews 1999). This dissertation complements such research by examining the documents which both report on and inform public health practices in a spiral of knowledge–policy–practice, where practice feeds back into the knowledge base for policy which in turn anchors practice etc. etc. From the perspective of Physical Cultural Studies (Andrews et al. 2016), scholars have examined physical activity and movement as embodied practices within cultural contexts contrasting the quantification of individual physical activity to material, affective and discursive dimensions of embodied practices (Fullagar 2019). This dissertation is concerned with discursive dimensions of physical activity as health promoting practices, but from the perspective of public health science and policy and its implementation in intervention rather than as embodied practices.

A major issue within public health research is the problem of integrating social context in public health practice, and an abundance of scholarship calls for more socially integrated public health work (see e.g. Shoveller et al. 2016; Holman et al. 2018; Lomas 1998: Erben et al. 1992; Alvaro et al. 2011), perhaps particularly in the Scandinavian welfare states where issues of social inequity in health are a political priority (Thorlindsson 2011; Øversveen et al. 2017; Fosse and Helgesen 2017). Studies have found that a belief in disease prevention through individual lifestyle modification prevails on policy level in spite of knowledge to the contrary (Larsen 2011; Alvaro et al. 2011), and that a rationale of prevention of future diseases corresponds poorly to people's lived experiences (Warin et al. 2015). A recent systematic

review of social capital intervention called for 'multilevel intervention' (Villalonga-Oloves et al. 2018). In the Norwegian research context, recent debate has problematized both the organization of public health work addressing social inequity in health and the research itself (see e.g. Hagen et al. 2018). For this reason, it is particularly interesting to look more closely at how the more specific public health intervention studied in this dissertation relates to the overarching, comprehensive framework of the urban development project of which it forms a part. Central to the problem of integrating social context in intervention is the issue of assessing the outcome of concrete lifestyle intervention (Øversveen et al. 2017). While the focus of intervention – e.g. diet and physical activity – functions as an indicator for health, the ability to assess the outcome is impeded by a lack of clarification as to how this indicator should affect health (Erben et al. 1992). While this conundrum of public health is probably not solvable, it does invite a discussion of what implications this prevailing tension may or should have for public health practice.

Critical scholarship has addressed this issue by focusing on the values informing and being expressed through public health practices: Taking on a global approach, scholars have argued that the prevention of NCDs rests on a western 'imperial vision' of global health (Brown and Bell 2008). Furthermore, the role of paternalism in preventive public health has been examined through a comparative study of state's public health agendas (Borovoy and Roberto 2015). Concepts such as 'social determinants of health' and 'social inequity in health' are in public health used to emphasize the complexity of factors influencing health, and contrasted to 'lifestyle intervention' or a focus on 'health behavior' which addresses individual behavior rather than broader social structures. While it has been argued that 'complexity' may function as a smokescreen justifying political inaction (Savona et al. 2017; Savona et al 2020), this complexity has also inspired a comprehensive analysis of preventive public health as assemblages of 'heterogenous engineering' (Niewöhner et al. 2011). The study found that these

assemblages lead to a lack of sensitivity towards individual difference because they make certain practices of expertise more plausible than others (p. 740). Along related lines, a study in science and technology studies (STS) found that the ability of professionals to embed meaningful definitions of human differences becomes impaired by steering strategies of 'projectification' in health care (Penkler et al. 2019).

Critical scholarship on values informing and being informed by public health intervention includes studies on dietary advice. Mayes and Thompson (2014) have discussed ethical implication in discourses of healthy food, and also addressed use of dietary science and policy as 'nutritional scientism' (not to be confused with Scrinis' (2013) 'nutritionism') (Mayes and Thompson 2015). Research on lifestyle intervention in kindergartens have found a tendency to conflate cultural norms of eating with healthy eating (Karrebæk 2013), and problematized the relationship between public health agendas of 'physical activity' with health benefits of 'free play' (Alexander et al. 2014). Evaluating a public health intervention program, Mackenzie (2008) found that there is no general consensus on what it is that constitutes public health, and therefore called for explicit discussion of the values around child health inequalities, particularly when it comes to standardized intervention (p. 1035). Within sport science, critical scholarship has found that public health intervention in vulnerable communities may implicitly require that those subjected to intervention must come to know themselves as ignorant and that the line between public health research as gathering evidence on the one hand, and operating as a teacher of the masses on the other hand, may become blurred in the intervention process (McCormack and Burrows 2015 p. 373). Along the same lines, qualitative approaches have examined how intervention in disadvantaged neighborhoods is perceived by the population, and how autonomy is negotiated *vis-à-vis* behavioral messages about responsibility for health (Berg et al. 2019).

Sports scientists have furthermore raised questions about the precise scientific value of physical activity for health and engaged with discursive tensions in physical activity as regimes for governing bodies (Johns and Tinning 2006). Likewise, physical activity as intervention has been found to produce discourses of self-governance on the basis of 'calculative rationality' (Fullagar 2002). Discourse analytical reading techniques have been applied on a commercial health promotion effort, denoting lifestyle intervention within a holistic approach as 'liberal paternalism' (Carter 2015). Tensions within the field of sports science has led to a call for integrating critical scholarship in public health pedagogy and a plea for more critical reflexivity within the field (Mansfield and Rich 2013).

While none of the studies mentioned above employs the approach taken in dissertation, these adjacent studies provide a platform from which to discuss the findings of the three papers making up this dissertation in section 7. below, as they in different ways illuminate broader implications of public health science and policy and their realization in practice.

4. Methodological approach

The methodological approach of close reading as it is employed in the three papers in this dissertation aims to realize a VT focus on accountability, validity, legitimacy, and reflexivity (see section 5.1.) of public health work, but also of practices of critique. The analytical frameworks informing the papers (see section 4.3.), allow for a structured and systematic realization of the VT approach. This particularly applies to the VT project of 'democratization of science', which coincides with the overarching analytical framework of discourse analysis as it is employed by Engebretsen and Heggen (2012): making the unarticulated premises of texts available for democratic discussion (Engebretsen and Heggen 2012 p. 147; see also section

4.3. below). By applying this analytical premise on knowledge practices in public health intervention as well as practices of criticism, this dissertation knits together the discursive analytic framework and the VT approach. The close readings performed in the three papers examines public health a) from a theoretical, reflexive, and epistemological point of view (Paper I); b) from a policy oriented point of view focusing on discursive tensions of policy implementation (Paper II); and c) from a science oriented point of view focusing on the framing of 'evidence' and its relation to public health knowledge (Paper III). Taken as a whole, this dissertation contributes to interdisciplinary health research by employing a VT approach of 'opening up the black box of expertise' along several axes at once: the realization of policy, the operationalization of scientific knowledge, and also the critical perspective itself. In this section, I will first account for the background and context of the empirical material studied in Paper II) and III) in this dissertation. From this outline, I go on to delineate the representation of the concept of healthism and the theoretical challenges which formed the background of the epistemological examinations in Paper I). In 4.2., I will outline the empirical material I have studied in this dissertation and account for the employed methods. Finally, in section 4.3., I elaborate on the analytical approach I have employed in this work.

4.1. Background and context

The intervention studied in this dissertation takes place within a prominent effort addressing living conditions and social determinants for health in a cross-sectoral collaboration between state and local authorities. The Grorud Valley Integrated Urban Regeneration Project (GVIURP) (Collaboration committee for Grorud Valley 2017) originated in 2007 and is still ongoing (Oslo Municipality and the Ministries 2016). The administrative context within which

the intervention takes place makes it a good instantiating case of a social welfare state take on public health governance.

Grorud Valley is a suburb to the Norwegian capitol Oslo and has a population of 130 000. The population in culturally and ethnically diverse, with a concentration of immigrants from various cultural backgrounds (Kumar et al. 2008). GVIURP was initiated as a result of a national survey where Grorud Valley scored lower than the population on average on a range of indicators for living conditions and health (Nadim 2008; Braathen 2007). This cross-sectoral urban development project consists of 4 program areas: 1) Environmentally friendly transport; 2) River Alna, green structure, sports and cultural environment; 3) Housing, urban and place development; 4) Children, adolescents, schools. Living conditions, cultural activities and inclusion (Ekne Ruud et al. 2011). While 'health' is not explicitly part of the titles of the program areas, it is informed by a public health approach addressing social determinants for health, and it has been informally referred to as "one gigantic public health project" (Ekne Ruud et al. 2011, p. 45).

Within GVIURP, the lifestyle intervention titled the Public Health Project in Kindergartens was piloted in 2013, targeting diet and physical activity in selected public kindergartens in the area (Dønnestad and Strandmyr 2014). This initial pilot project was later expanded to include all kindergartens in the area (Dønnestad, Helland Kleppe and Strandmyr 2015; Oslo Municipality and GVIURP 2018). The aim of the intervention was to ensure that all children follow the national recommendations for diet and physical activity. For diet, measures included addressing institutional practices such as adjusting the food served in the kindergartens, improving the selection provided by grocers, and implementing regulations for packed lunches and food served at celebrations with a particular focus on reducing sugar intake. Promoting a healthy diet meant ensuring that the children's diet would be in accordance with national recommendations, not only during their time in kindergarten, but also in their homes.

As a means to improve levels of physical activity, accelerometers – seismic devices measuring intensity levels of movement – were employed in order to provide objective quantified measurements of activity levels. I have studied this intervention with a focus on how public health science and policy is realized in practices of diet and physical activity within a social democratic welfare state context.

Working with the concept of healthism against this background and context caused methodological problems which inspired a theoretical reflection, which in turn informed Paper I) in this dissertation. The concept of healthism springs out of the concept of medicalization, but carries a different meaning. In his genealogy of the concept of healthism, Turrini (2015) outlines the difference between these two critical concepts. The discourse of medicalization focuses on the medical establishment as "an institution of social control" (Zola, 1972) and addresses what is perceived as an undue expansion of the jurisdiction of medicine to the social sphere. Seeing healthism as form of "medicalization without doctors", Turrini (2015) defines healthism as "the analysis of a set of attitudes, behaviours, and emotions that result from the elevation of health to a pan-value and committed to a more active engagement of patients in the process of healthcare" (Turrini 2015 p. 17). Following this understanding, I saw the concept of healthism as a means to opening up new ways of addressing the social implications of health practices. However, I noticed in the literature a tendency to conflate healthism with 'neoliberalism' in a way that sets up a dichotomy between 'neoliberal states' and 'welfare states'. This problem is a concrete realization of the theoretical issues I have encountered in the work with this dissertation, and which I elaborate on in sections 4.1. and 5.1. below. Seeing healthism as an ideology placing an undue responsibility for health on the individual, Guthman (2011) e.g. holds that subjecting the population's health to economic calculation "takes the lid of social protection and guarantees, and redefines good citizenship as being a minimal consumer of state health and welfare services" (p. 55). This basic premise became a source of puzzlement

on my part: Surely, in a welfare state where the cost of health care is indeed a state responsibility, payed for through public funding, the moral responsibility of not burdening the health care system with unnecessary costs can be said to be even greater? And further, are interventions targeting lifestyle necessarily an expression of 'healthism' and therefore of neoliberal practices? How could I make sense of this within the comprehensive framework of the GVIURP project? It would certainly be possible to categorize the isolated practices of the lifestyle intervention in accordance with the understanding of healthism as neoliberalism on a theoretical level. But wouldn't such a perspective stand at risk of neglecting essential aspects of the rationale informing the intervention I was examining? From this initial puzzlement, I entered into a theoretical examination of the concept of healthism. This examination constitutes Paper I) in this dissertation.

4.2. Methods and materials

In this subsection, I will outline the methodological proceedings as well as the materials studied in the three papers making up this dissertation. The overall methodological approach is one of close readings. Paper I) takes a theoretical approach in an epistemological discussion of the concept of healthism, drawing on core texts introducing and developing the concept of healthism (Crawford 1980; Skrabanek 1994b), as well as more recent critical scholarship. The focus of interest was the normative implications of conflating healthism with neoliberalism. For this reason, Paper I) does not approach the healthism concept in a systematic review of the 'healthism' literature. The concept of healthism is employed in contexts ranging from commercial health promotion (see Turrini 2015) to matters of discrimination in the legal system (Roberts and Leonard 2015). 'Healthism', in other words, carries a range of different meanings.

What we were interested in, was the way in which healthism was used in the literature as an explanatory device, summing up a set of structures of social organization encompassed by the concept of 'neoliberalism'. The methodological problem with this approach is that this use tended to occur as an add-on within a broader argument, not as a keyword-inducing theme of scholarly papers. This non-indexed use of the concept of healthism was precisely the interest of our examinations, because this use amplified our impression that the concept of healthism could be treated as carrying an intuitive and self-evident meaning. Perceiving the concept of healthism as self-explanatory, however, would – taken to its extreme consequence – mean that analysis of social phenomena would be superfluous, as its conclusion could be delivered simply by introducing the concept of healthism and label the phenomenon accordingly. Furthermore, the healthism concept in a sense represents a proxy which makes it possible to articulate broader epistemological and methodological issues of translating a critical concept from one context to another. Jan Reinert Karlsen and I spent a lot of time untangling the nature of these epistemological difficulties and trying to pinpoint where and how they occurred. Central questions became: i) how is healthism represented in the original works of Crawford (1980) and Skrabanek (1994b)? ii) in what way is healthism conceptualized and used in these works? iii) how is it used in critical literature? iv) what are the limitations and prospects of this concept if it is untangled from the contexts within which it is used? Questions i) and ii) informed a close reading of Crawford (1980) and Skrabanek (1994b). Question iii) informed an examination of the connection between neoliberalism and healthism in critical literature. In order to concretize the meaning of healthism as 'neoliberal health practices', we drew on Ayo's (2012) outline of 'neoliberal rationality' in health promotion. We did, however, wish to go beyond a purely conceptual and theoretical discussion of the concept of healthism. In order to take the epistemological consequences of our discussion – to ask, as it were, *so what?* – we wanted to apply the conceptual discussion on some illustrative empirical examples. These examples were

chosen on the basis that they represent a range of the problems I have encountered in the attempt to think with the concept of healthism in my readings.

Papers II) and III) constitute the empirically informed research in this dissertation. It would certainly have been possible to employ qualitative methods such as interviews, focus groups, or participant observation in order to approach the practical realization of public health science and policy. The focus of this dissertation is, however, not on the motivations and intentions behind the implementation of science and policy in practice, but the way in which science and policy are played out in practice and represented in project reports. My objective has been to investigate how notions of science and policy work and are worked through practical implementation. For this reason, my primary sources needed to be the documents with which different actors in the public health system engage in order to enact policy. The policy documents analyzed in this dissertation are connected through administrative levels of policy. They all play a role in a process of knowledge-based intervention which feeds back into further policy development. In this process, these documents gain a life of their own; readers on different administrative levels do not necessarily have access to the intentions and motivations informing e.g. a project report. Therefore, the analyses in paper II) and paper III) are concerned with the meaning production taking place within these documents. Examining this meaning production involves a degree of assessment. In this regard, it would be possible to measure the intervention in question by comparing it to frameworks such as the knowledge base for physical activity in public health (Norwegian Directory of Health 2014) or more external theoretical frameworks. Another approach could be to compare the intervention in question to other public health projects. It is, however, not an objective of this dissertation to establish 'what works.' Rather, it is a fundamental premise that the practices studied in this dissertation are compared not to external frameworks, but to what they say about themselves, so as to gain a clearer insight

into the complexity and reflexivity connected to the practical realization of public health science and policy.

The empirical material consists of the project reports accounting for the intervention at the pilot stage (Dønnestad and Strandmyr 2014), its follow-up (Dønnestad, Helland Kleppe and Strandmyr 2015) and the subsequent expansion of the project (Oslo Municipality and GVIURP 2018). The 2014 report[2] and 2015 report[3] were previously publicly available at the official website of Oslo Municipality, but have now been replaced by the 2018 report.[4]

Starting from these reports, I went through the citations which support the project's knowledge claims and anchor the project politically in order to examine the problem framings that the intervention responds to and to get an understanding of the rationale of the intervention. I particularly focused on the pilot project report, as this initial intervention functions as a basis for the expansions of the project. From there, I coded the data following a grounded theory approach (Charmaz 2006), developing analytic categories relevant to the science and policy of public health practice, working out research questions and revisiting the material in order to address these questions. Paper II) examines the policy documents cited in the project reports. These documents include the overarching national public health agenda. (Ministry of Social Affairs 2002). Although this agenda has since been replaced (Ministry of Health and Care Services 2014), I have focused on the 2002 agenda, as this white paper provided the political anchor point for the intervention and is cited in all of the project versions. Policy documents furthermore include the public health strategy developed by local public health authorities (Oslo Municipality, District Grorud 2011), as well as the evaluations assessing the intervention as part of GVIURP (Ekne Ruud et al. 2011; Proba Research 2016), final reports (Collaboration

[2] accessed and downloaded 27.02.2014
[3] accessed and downloaded 18.08.2015
[4] accessed and downloaded 21.05.2020

committee for Grorud Valley 2017) and outlines for further policy (Oslo Municipality and the Ministries 2016). All of these documents are or have been publicly available.

Paper III) examines the use of 'evidence-based' in the intervention. Grounding my analysis in the empirical material, I went through the evidence base cited in the reports in support for the use of accelerometers as objective measurements of physical activity in order to address the scientific reasoning informing the quantification of physical activity in the intervention.

4.3 Analytical frameworks

In the following, I will account for the analytical frameworks as they have been employed in the three papers making up this dissertation. As an overarching focus, I operate with an understanding of public health practice as a realization of public health science and policy. As the analyses are concerned with the meaning production taking place in public health discourse, my approach resonates with the work that has been done in developing the translation metaphor in health care. 'Translation' in health care refers to medical knowledge translation "from bench to bedside" (WHO 2005). The idea of knowledge translation was motivated by a need to adequately base clinical practice on available evidence by translating medical research into practical guidelines for clinicians. In the humanities, scholars have done the work of unpacking this metaphor (Greenhalgh and Wieringa 2011), pointing out that 'translation' is not a neutral and straightforward "replication of the original" (Gal 2015). Rather, translation is seen as a "process of meaning production" (Engebretsen et al. 2017, p. 2) in and of itself. As the intervention studied in this dissertation is anchored in science and policy through concepts of 'evidence-based' and 'social inequity in health', the translation metaphor functions as an

'epistemological lubricant' (Engebretsen et al. 2017, p. 4) because it contributes to opening up questions about the function of the meaning production that occurs in the process of transferring these concepts into practice. Rather than taking 'evidence-based' and 'social inequity in health' as fixed categories and given entities, the translation metaphor turns the focus towards the processes in which these concepts are employed.

As a result, the fundamental premises upon which practice rests, become objects of discussion rather than prerequisites for discussion. This objective is central for Engebretsen and Heggen's (2012) discourse analytical reading of Norwegian welfare state governance documents. Engebretsen and Heggen's approach revolves around power in welfare state governance and draws on Foucauldian conceptualizations of power to analyze the welfare state's softer, more indirect and appealing forms of governance (p. 23), understood as *welfare power* (p. 1). Following Engebretsen and Heggen (2012, p. 19), Foucauldian theories can be understood as providing a motivating backdrop of the problem framings in this dissertation, although the analytical framework does not employ the conceptual apparatus of *biopower, biopolitics, governmentality,* etc.

Because the approach taken in this dissertation is an epistemological one, it also resonates with that of Georges Canguilhem, who in *The Normal and the Pathological* (1989/1966) employed close reading strategies in an epistemological examination of medical history. In this work, Canguilhem performs an epistemological critique of fundamental problems in medicine in a way which involves "yielding to a demand of philosophical thought to reopen rather than close problems" (p. 35). By way of an epistemologically oriented close reading, Canguilhem detects tensions and contradiction in medical texts and articulates these tensions in a way that opens for further problematization. One could say that the philosophical project thus becomes a matter of generating new questions about solved problems. Through close readings, Canguilhem's problem-understanding and interpretation of the medical

enterprise become explicit, accountable, and situated in concrete examples. The approach in this dissertation resonates with that of Canguilhem. Perspectives from Foucault and Canguilhem are present in this dissertation not as theoretical frameworks, but rather as analytical approaches.

While Paper II) and Paper III) in this dissertation take on an empirically informed reading of public health practices, Paper I) is concerned with issues pertaining to criticism itself. Here it should be noted that the initial working title of the thesis was *Addressing societal 'wrongs' by eating 'right' – a study of ethical food consumption and public dietary advice*. At the early stages of the work with this dissertation, my intention was to study public health science and policy with a focus on nutrition. I therefore engaged with the field of Critical Nutrition Studies (CNS) in order to understand how to approach this problematic from an interdisciplinary point of view. I eventually moved away from a focus on diet and nutrition. The reason for this choice is that I, engaging with the empirical material, became increasingly aware that physical activity was the locus where the term 'evidence-based' was employed most explicitly. Engaging with the CNS literature, however, I became aware of a range of theoretical and epistemological problems which I believe is representative of a more general problem within critical scholarship. The problems I encountered when engaging with the CNS literature to a large degree form the background of Paper I). These problems arguably spring from the normative assumptions and implications of CNS as an epistemological framework. I will elaborate on the nature of this normativity in section 5.1. below. Rather than performing the epistemological exploration in Paper I) by scrutinizing the CNS literature, I chose to focus my discussion around the connection between 'healthism' and 'neoliberalism' as a way of addressing normative qualities of critical concepts and challenges connected to transferring such concepts from one context to another. Paper I) paper sprung out of epistemological difficulties which arose in the attempt to transfer a conceptual apparatus from critical research

to the context of the empirical material studied in this dissertation. The paper makes use of Dean's (1999) concept of 'analytics' in an examination of the normative implications of the concept of healthism.

Paper II) and III) employ reading strategies from discourse analysis on public health science, policy and practice. Inspired by Engebretsen and Heggen (2012; see also Kleppe et al. 2010), I draw on concepts from Laclau and Mouffe's discourse theory (2001/1985) in Paper II). Jørgensen and Philips (2002) have developed Laclau and Mouffe's rather abstract theory into an analytical framework. In Paper II), I address issues related to the implementation of policy into practice. In order to do this, I employ Jørgensen and Philip's take on *articulation, nodal points*, and *elements* in a discourse analysis of how the meaning of 'social inequity in health' (SIiH) changes from policy level to implementation. Seeing policy documents, project reports and evaluation as interconnected in an 'intertextual chain' (Fairclough 1995; Jørgensen and Philips 2002, p. 66), I understand SIiH as a nodal point – a rather vague entity which gains its meaning through discursive elements – texts and practices. With and through these elements, the meaning of the nodal point becomes articulated. In the paper, I take as elements the problem definitions which are conveyed through the different levels of public health administration and practice. The objective of this analytical approach is twofold: It seeks to examine *how* meaning is produced (Jørgensen and Philips 2002 p. 35), and it seeks to examine what the discourse *does* (Solbrekke, Heggen and Engebretsen 2014). The end result of this analytical approach is a "positioned opening for discussion" (Jørgensen and Philips 2002 p. 166).

Paper III) in this dissertation employs frame analysis in addressing the use of 'evidence-based' in the intervention in question. Originating from Bateson (1955) and developed by scholars such as Goffman (1974) and Rein and Schön (1977), frame theory is concerned with how the manner in which a problem is framed contributes to the definition of social reality (Donati 1992), and to the structuring or sense making of information (Fisher 1997). In this

paper, we particularly draw on van Hulst and Yanow's (2016) concepts of 'sense-making', 'naming,' and 'storytelling'. 'Sense-making' in this context refers to the function of frames as organizing values and guiding action (p. 98). 'Naming' refers to the function of a frame as defining an issue in a way that directs attention towards certain aspects and away from others (p. 99). 'Story-telling' refers to the function of a frame as constructing a coherent and meaningful narrative explaining what has been done or needs to be done (p. 100). Employing these analytical categories on the intervention, Paper III) examines the evidence base of the intervention in question and studies how it relates to the framings of the problems and solution it presents. Thus, it is able to draw out otherwise unarticulated tensions within these frames, thereby rendering the fundamental premises of the intervention objects of discussion rather than prerequisites for discussion.

Taken together, the three papers resonate with Canguilhem's take on the philosophical project of generating new questions about solved problems. The analytical frameworks employed in this dissertation make it possible to realize the VT approach of assessing the validity, accountability and legitimacy of knowledge practices.

5. Critical approach: Vitenskapsteori (VT) and Critical Nutrition Studies (CNS)

In this section, I will situate the critical approach of this dissertation. I noted in 2.3. above that the VT approach of this dissertation constitutes a branch of Theory of Science which carries with it a certain normative epistemological framework. In the work with this dissertation, I have also engaged with a body of literature which can be understood as another branch of Theory of Science: Critical Nutrition Studies (CNS). I started engaging with the CNS literature because there appeared to be crossovers between VT and CNS, particularly when it came to the approach

to knowledge claims. In this process, I became aware of a range of theoretical and epistemological problems which I believe is representative of a more general problem of normativity within critical scholarship. CNS has therefore influenced the work with this dissertation in a rather roundabout way. In the following, I will elaborate on VT and CNS as normative critical frameworks. My motivation for this is not merely to provide a general introduction of these two somewhat overlapping, yet distinct, branches of Theory of Science. Rather, it is a means to explicate and reflect on the theoretical and normative approach of this dissertation. This objective is necessitated by the common denominator of the three papers calling for (a space for) critical reflexivity in public health practice. As will be clarified in more detail below, this normative plea has the boomerang effect of posing a requirement of this dissertation to account for the basic assumptions upon which it rests. There is little space in journal articles for this kind of reflexive endeavor. Therefore, I have taken the liberty to allocate time and space in this introductory chapter to flesh out some important theoretical implications of CNS and VT as self-reflexive theoretical approaches.

In order to draw out the normative components of CNS and VT, I draw on Haas' (1992) epistemic communities. Haas' (1992) notion of epistemic communities is based in Fleck's (1935) notion of 'thought collectives' which provides a sociological take on groups with a common style of thinking, and on Kuhn's (2012/1963) notion of paradigms which emphasizes how the shared understanding of a group determines the way in which a subject matter is investigated (Haas 1992 p. 4). In Haas' sense, such a community may consist of a variety of expertise from different disciplines and backgrounds. Both VT and CNS can be seen as epistemic communities: SVT at UoB is an institutional community and therefore consists of scholars interacting across disciplines and competences; CNS is more united in its approach and research object, and has been referred to as a paradigm (Biltekoff 2012 p. 182). Although Haas' (1992) conception of epistemic communities was developed to address international

policy coordination and not interdisciplinary fields as such, two of the components of the definition of shared features within epistemic communities are particularly useful for my purposes: a) *shared normative beliefs* which provide a value-based research approach, and b) *shared causal beliefs* which serve as the basis for elucidating a central set of problems (p. 3). The discussion in this section is organized by way of elucidating what can be seen as shared normative and causal beliefs in VT and CNS. This approach does not make for an exhaustive or comprehensive outline of these very diverse research fields. Rather, it functions as a tool for identifying some of their basic premises, and the implications these premises have for the critical approach in this dissertation.

5.1. Shared normative and causal beliefs in Critical Nutrition Studies (CNS)

CNS is a branch of the interdisciplinary field of Food Studies (see e.g. Berg et al. 2003). Contributors include scholars from communication, rhetoric, public health, sociology, cultural studies, as well as geography, anthropology, American Studies, history of science, and philosophy (Biltekoff 2012; Guthman 2014). Guthman (2014) describes CNS as concerned with:

> the politics of knowledge in nutrition science and practice, yet attentive to how nutritional ideas have been wrapped up in broader biopolitical and geopolitical projects, how efforts to disseminate nutritional advice to less privileged audiences can reinforce class and race differentiation, and how nutritional ideas have been appropriated and commodified by the food industry in less than salubrious ways (p. 2).

The project of CNS is by no means a singular one, but from this quote, we understand that this field takes on a meta perspective on research and that broader societal implications of nutrition knowledge and practice is an essential area of focus. According to Biltekoff (2012), major

theoretical influences informing CNS include Foucault, inspiring an objective of "accounting for the production of common sense about subjectivity and the body and refusing to take for granted the existence of any kind of biomedical truth outside of the process of language, culture, and ideology" (p. 180). Second, science and technology studies (STS) is reported to play an important role in CNS' interest in the production of scientific knowledge (p. 180). As a field of study, it can therefore be said to be encompassed by the broader field of Theory of Science as it is presented in section 2.2. above. As an emerging field in the process of positioning itself, CNS has generated texts where scholars explicitly frame their work and others' as CNS scholarship. This is of interest to the purposes of this introductory chapter because it means that the underlying and normative assumptions informing this framework become explicated in texts. My examination of the shared normative and causal beliefs of CNS in this section relies on representative writings provided by its participants in self-reflexive discourse.

In 2013, a symposium was organized at the University of California, Santa Cruz on the topic of CNS. The symposium resulted in a special issue in *Gastronomica: The Journal for Food Studies* (2014 Vol. 14 No. 3). This special issue, along with Biltekoff's (2012) entry on CNS in the Oxford Handbook of Food History, and the paper "The Frontiers of food studies" (Belasco et al. 2011) constitute the basis for my take on CNS as an epistemic community. It is worth noting that 'common causal and normative beliefs' are not fixed entities, nor necessarily distinct categories. For the purposes of this introductory chapter, I understand as 'causal beliefs' the problem complex that CNS aims to address, and as 'normative beliefs' the role which CNS assigns to itself in addressing these problems. In my reading of the causal and normative beliefs underpinning CNS, I have focused particularly on perspectives that are relevant for nutrition as a part of the lifestyle construct in public health. As I am an outsider to CNS, this section stays close to the texts produced by this community.

I have identified shared normative beliefs in CNS in three categories of *questioning assumptions*; *emphasizing complexity*; and *effecting change*. A central normative belief in CNS is the objective of questioning assumptions "of what we think we know and how we know it" (Caldwell 2014 p. 69). Questioning assumptions in CNS also means to focus on sociological and cultural aspects of nutritional knowledge: "It is vital to defamiliarize nutrition, to undo its taken-for-grantedness in order to understand better its sociological and cultural underpinnings, as well as the effects that it has beyond improving or failing to improve dietary health" (Guthman 2014 p. 2). According to Biltekoff (2012), CNS is concerned with the political and ideological implications of notions of dietary health (p. 182) and with providing analytical tools to "identify and deconstruct the assumptions about food and health that prevent us from clearly perceiving the values, beliefs and ideologies that define dietary health, good food and what it means to 'eat right'" (p. 186). A central normative belief within CNS, then, is that it is necessary to understand nutrition and dietary health in terms of their implications. The focus on broader implications of nutrition and dietary health in CNS means recognizing complexity and human difference when it comes to what is "good for you" (Mudry et al. 2014 p. 27). CNS "approaches nutrition and dietary health as cultural constructs" (Biltekoff 2012 p. 180). Recognizing complexity in CNS also means developing a "critical dietary literacy" which takes a step back and treats "dietary reform, dietary ideals and conversations about dietary health as texts that require analysis" (p. 186). CNS is concerned not only with analyzing implications, but also with effecting change in nutrition practices. One part of this normative project is concerned with the production of nutritional knowledge. Kimura draws on STS and calls for a humbler nutrition science in the light of Jasanoff's (2003) 'technologies of humility' (in Hayes-Conroy et al. 2014 p. 64). Likewise, Biltekoff (in Biltekoff et al. 2014) describes the project of CNS as a project influencing nutrition science:

> The job of social science, therefore, is to account for the relationship between nutrition and its context, to ask 'what else is going on here?' in the face of knowledge that claims pure objectivity, and, ultimately, to convince our colleagues in the sciences that understanding and working with the social and cultural aspects of nutrition is essential to assuring that scientific research has its intended impact. (p. 18)

Within CNS, then, the normative project is not only to provide broader perspectives, but also to effect change within nutritional knowledge production by 'persuading' researchers within this field of knowledge production. This change is framed in terms of aiming to "construct a bridge over the science/culture divide" in order to set in motion a "productive collaboration in the name of food and health" (Biltekoff in Belasco et al. 2011 p. 307). The critical perspective of CSN does not only designate a theoretical and analytical framework, but a critical perspective that can and should be disseminated and expanded. This normative project can be summed up by Biltekoff's (2012) notion of critical dietary literacy: "Beyond labels, health claims, nutrition facts and dietary advice, we need a new literacy through which to envision our world of 'eating right' transformed by a collective rethinking of the common sense of dietary health" (p. 186). What then, is this 'common sense of dietary health' that CNS aims to transform? Considering the strong normativity of this project, I will now turn to an examination of what kind of problem it is that CNS sets out to solve.

The explicitly normative project of CNS is necessitated by an identified problem complex which I here understand as the 'shared causal beliefs' of CNS. Insofar as the causal beliefs of CNS contribute to the framing of this problem complex, they arguably also hold a normative function, but in a different way than what I have categorized as 'shared normative beliefs'. I have categorized these shared causal beliefs as: *hegemonic epistemologies*; *the role of nutrition in constructing subjects*; *the role of 'dietary health' in social organization and governance*.

Hayes-Conroy (in Kimura at al. 2014 p. 39) describes a 'hegemonic nutrition' based in the central assumptions that the relationship between food and the body can be standardized;

that a nourished body can be understood in terms of macro-and micro nutrients (also known as 'nutritionism, see Scrinis 2013); that nutrition "is universally equivalent and can be decontextualized from political, economic, social, and cultural locations" (see also Hayes-Conroy and Hayes-Conroy 2013). Hegemonic nutrition, according to Hayes-Conroy, denotes nutrition sciences as well as "everyday understandings of 'healthy eating' (in Kimura at al. 2014 p. 39). Guthman (in Biltekoff et al. 2014) situates a "hegemony of reductionism and quantification" in a historical perspective and relates it to "the American Progressive Era's love affair with rationalization and standardization" (p. 17, see also: Biltekoff 2013; Mudry 2009; Scrinis 2013; Veit 2013). According to Biltekoff (2012), a common denominator of scholars working within CNS is the presumption that "the supposed objectivity of nutrition science is itself a cultural construct that serves ideological and political ends" (p. 180). Furthermore, a central premise in CNS is that "the science of nutrition is absolutely inseparable from its moral content" (p. 186). The ideological consequences of the hegemonic epistemologies that CNS observes can be summed up by Mudry's observation that nutritional epistemology "encourages the subordination of the subjective by the objective, the qualitative by the quantitative, the individual by the "normal" and the idiosyncratic by the standard" (Mudry in Biltekoff et al. 2014 p. 21). A corollary of the critique of hegemonic epistemologies within CNS is that the relationship between diet and health– and therefore the utility of dietary guidelines themselves – is questioned (Hayes and Conroy et al. 2014 p. 56); a questioning of whether the public discourse on nutrition is generating a problem rather than addressing one (Guthman 2014 p. 2), and whether a focus on dietary health "turns health into an oversimplified checklist" (Mudry in Kimura et al. 2014 p. 37). Summing up, CNS' shared causal belief of hegemonic epistemologies is focused on the reductive effect of nutrition knowledge on the conceptualization of what it means to be healthy. This brings me to a second shared causal belief within CNS, which concerns the social effect of nutrition knowledge and practice.

Opposing a "supposed objectivity" (Biltekoff 2012 p. 180) and a "seeming neutrality" (p. 181) of nutrition science, CNS is concerned with social effects of nutrition knowledge and practice: "Nutrition is an ideology that constructs subjects with certain kinds of relationships not just to food and nutrition, but to themselves, other people, and the social order" (Biltekoff in Biltekoff et al. 2014 p. 18). A central tenet in CNS is that nutritional guidelines contribute to the construction of subjects and carry an ethical dimension because they provide rules about how to live right (see also Coveney 2002). Following Veit (2013) and Crawford (1994; 1980), Biltekoff observes that the social effect of conflating "dietary ideals and social ideals" becomes closely connected to American "middle-class-self-making" (Biltekoff in Kimura et al. 2014 p. 35). Taking on a historical perspective, a shared causal belief in CNS is that nutrition has contributed to ideas about what it means to be a responsible subject as "the management of health became inextricably linked with the management of the diet" (Mudry in Kimura et al 2014; see also Mudry 2009). Nutrition is in CNS understood as contributing to the construction of ethical subjects. Furthermore, nutrition is within CNS seen in connection with a broader social tendency where an expanding set of behaviors comes to be understood as 'health-related'. Thus, nutrition, or 'eating right' gains a moral valence (Biltekoff in Kimura et al. 2014 p. 36). In this way, CNS literature sees nutrition as connected to ideas about what constitutes good citizenship. Diet is seen as reflecting a specific social ideal embraced and promulgated by the American middle class (Biltekoff 2012 p. 173).

An implication of this moral valence of lifestyle, is within CNS recognized as an exaggerated expectation of the individual's capacity to "control their biology" through lifestyle choices (Biltekoff in Hayes-Conroy et al. 2014 p. 64). The idea that health can be achieved and disease prevented through lifestyle management such as diet, is in CNS, with reference to Petersen and Lupton (1996) and Crawford (1980; 2006), connected to a "new health

consciousness" emerging in the American middle class during the 1970s (Biltekoff in Belasco et al. 2011), and to the concept of 'healthism' (Guthman in Kimura et al. 2014 p. 34).

In addition to seeing nutrition as providing an ethics on an individual level, CNS is concerned with broader social effects of lifestyle oriented public health policies: "Policies …, which place the burden of responsibility of being healthy on the individual through dietary self-regulation reflect how pervasive the framework of governmentality is as a mechanism of regulation and control" (Mudry in Kimura et al. 2014 p. 37). In CNS literature, a focus on individual lifestyle as a health promoting measure is understood as an expression of "neoliberal governmentality" (Guthman 2011 p. 55). Operating in a US context, CNS understands a public health focus on individual behavior in relation to 'healthism', seen as an ideology promoting "vigilant self-improvement" among the middle class (Guthman in Kimura et al. 2014; see also Crawford 1980; 2006). Within CNS, a narrative emerges where a focus on individual behavior holds broader societal consequences: "Rather than reinstalling 'health services', the focus came upon empowering those who appeared not to be self-actualized with health knowledge to make them better citizen-subjects as defined through neoliberal notions of personal responsibility" (Guthman in Kimura et al. 2014 p. 34). Individual health practices are depicted as taking the place of health services provided by the state, and thus as a threat to public welfare organization.

This dissertation shares some of the normative assumptions of CNS. It is a central objective to ask fundamental or basic questions and thus in effect question the assumptions upon which public health policy and practice rests. It is interested in the broader social implications of knowledge production and dissemination. It also shares a preoccupation with complexity when it comes to the lifestyle construct in public health. Due to the points of resonance between CNS and this dissertation, I originally assumed that the frameworks and theoretical perspectives that this field offers would be helpful for my analysis. This however, led to some epistemological and methodological problems which I became increasingly aware

of in the process of trying to adapt the conceptual apparatus of CNS to a Norwegian context, and which inspired paper I) in this dissertation. The conceptual apparatus like 'healthism' 'governmentality', and 'neoliberalism' is used in a range of academic fields but does not necessarily refer to the same contexts or phenomena. This may lead to a situation where internally coherent criticism does not communicate well with its object of examination.

I would argue that a central challenge of transferring this conceptual apparatus to a Norwegian context lies in the shared causal beliefs of CNS, which contribute to the construction of a problem complex to be addressed by critical scholarship: The shared causal belief of CNS arguably poses a diagnosis and thereby constructs a specific object of criticism. Here, several problems arise. First, the 'hegemonic epistemologies' that CNS addresses must be seen in the American context of the science wars. It is not necessarily helpful to adopt the polemic tone of the American culture wars in a Norwegian context. This also reflects back on the normative project of CNS, which appeared to be similar to that of VT and thus to the project of this dissertation. There are, however, some subtle but potent differences between these epistemic frameworks.

Second, the causal belief in CNS when it comes to the construction of subjects and its broader societal effects springs out of a very different socio-cultural context. The link between a public health focus on lifestyles and neoliberalism in a Foucauldian conceptualization of power is not exclusive to CNS, as mentioned in section 2.1 in this introductory chapter. While it would certainly be possible to include the Scandinavian social democracies in a conception of neoliberal societies, and while the research material of this dissertation would probably open up nicely to the kind of Foucauldian analysis suggested by the above mentioned scholars, in my view, this perspective does not provide an exhaustive perspective for understanding the public health practices examined in this dissertation. It would for example not be able to grasp the social take public health policy that permeates Norwegian public health discourse, and which

the overarching GVIURP represents. Therefore, chances are that it would not resonate well with the self-understanding of public health expertise, and thus, it would risk being perceived as irrelevant or misconstrued research. The object of criticism established through what I here refer to as the causal and normative beliefs in CNS constitutes a societal diagnosis which does not necessarily correspond well to the object of study in this dissertation. Hence, I have not been able to 'apply' the theoretical and conceptual apparatus of CNS on a Norwegian context in any straightforward fashion. Rather, it has functioned as a *vehicle of thought*: it has provided a theoretical framework against which the problem framings and analysis of this dissertation have come into shape.

5.2. Shared normative and causal beliefs in vitenskapsteori (VT)

In this subsection I identify shared normative and causal beliefs in VT. One possible objection to the strategy I employ in this section could be that VT is and should be an open and interdisciplinary research field and precisely therefore does not operate with neither causal nor normative beliefs – quite the contrary, it is arguably funded on a premise of avoiding scientific dogmatism. The same objection could probably also be posed on behalf of CNS. To this I would respond that my use of 'causal and normative beliefs' in this section is not intended to lay down an exhaustive and authoritarian 'VT dogma'. I employ these categories as a way of identifying some basic values that can be said to unite VT as a diverse research community, and which have affected the research approach of this dissertation. As in the CNS section above, I draw on texts that self-reflexively explicate the values and assumptions informing VT. I particularly draw on Strand's (2019) article "Vitenskapsteori: What, Why, and How?" and Skirbekk's (2019) publication *Epistemic Challenges in a Modern World.* I also draw on the report from the

1976 Jeløya-Conference which formed the rationale upon which SVT as an institution was initiated (NAVF 1976) and Fjelland's (1995) textbook introducing VT to undergraduate students. As opposed to the subsection on CNS above, I speak from an insider's point of view in this subsection. This means that, in addition to the texts listed above, I also draw on my own perception of the shared normative and causal beliefs of VT as I have come to understand them through participating in the community. Consequently, my contribution will probably be a combination of insights and blind spots.

I have identified the shared normative beliefs in VT as *validity*; *accountability*; and *legitimacy*. It is a basic premise of the VT approach, (as it is in CNS) that it is necessary to question fundamental assumptions upon which knowledge claims rest. A rationale for this belief is the notion that theoretical and methodological assumptions informing a knowledge claim are central for its validity (Strand 2019 p. 6). Importantly, different requirements of validity apply to different paradigms or disciplines, and one cannot necessarily or readily project requirements of validity from one field to another (Kuhn 2012/1962; Fjelland 1995). Questioning assumptions in VT means posing somewhat 'naïve' and basic questions in order to open up an "epistemological problem horizon that maintains normative aspects" (NAVF pp. 4-15). The normativity promulgated by a VT approach is then, quite soft. The objective of VT is, however, not merely to describe scientific or knowledge-based processes, but also to pose critical questions (p. 15).

A second shared normative belief of VT is that it is necessary to examine knowledge by "opening up the black box of expertise and thereby rendering it accountable" (Strand 2019 p. 6). One typical example of a VT approach in this regard is posing questions about what kinds of definitions are chosen for which purposes (Fjelland 1995 p. 21). This also means seeing 'science' (or even knowledge) as both a *process* and as a *product* (NAVF 1976 27; Tranøy 1986 p. 15 my italics). Therefore, it is relevant within VT to pose questions e.g. about the relationship

between the process of knowledge production and its endpoint in knowledge claims, or, in the case of this dissertation, its end point in knowledge-based practice. The shared normative belief, or value, of accountability forms part of an objective of VT to function as a "vehicle for democratic development in a modern, differentiated society" (Strand 2019, p. 10). This may have a broad meaning. In the report from the Jeløya-Conference in 1976, for instance, it was emphasized that students should be educated in a way that made it possible for them to articulate to their neighbors what they had studied and why it was worthwhile when they returned to the fishing communities or rural industrial villages from whence they had come (NAVF 1976 pp. 29-30).

The perspective of the three papers in this dissertation is informed by the normative premise of emphasizing the validity, accountability, and legitimacy of knowledge practices. As mentioned in section 4.3. above, it is also motivated by the idea that articulating tacit assumptions in knowledge claims is an inherently democratic endeavor. The notion of the democratization of knowledge is closely connected to the European bildung-tradition. In Norway, bildung and enlightenment have historically been combined with a strong focus on egalitarianism, particularly because there has been no nobility in Norway for the last 200 years (Skirbekk 2018). In addition to this local and specific context, a shared causal belief in VT is the understanding of modernity as characterized by a differentiation of knowledge, expertise, institutions, and rationalities (Skirbekk 2018). Due to this differentiation, it becomes particularly important to understand "what the various sciences can and cannot deliver" (Strand 2019; Skirbekk 2018).

In Strand (2019), VT is seen as contributing to infusing research education with a certain degree of reflexivity and humility (p. 6). A didactic VT approach means engaging in reflexive discussion with aspiring researchers over time and thus appreciate fundamental problems and limits to their own research. The objective of VT in this case is to cultivate a degree of

'organized skepticism' within the research environment (Strand 2019 p. 6; see also Merton 1973). This objective is implicitly founded on a causal belief that "research education is not entirely self-sufficient in reflexivity and humility" (Strand 2019 p. 6). The mode of VT that Strand (2019) operates with here is decidedly a didactic one. The question arises whether and how this perspective can be realized in VT research where one does not necessarily have the opportunity or – perhaps more importantly – a mandate to 'educate' experts through prolonged reflexive discussion, but would often 'communicate' by way of academic papers and presentations.

Identifying shared causal beliefs in VT, I take as my point of departure Skirbekk's (2019) *Epistemic Challenges in a Modern World*. Here Skirbekk identifies three points of emphasis for the researcher in VT: *Power*, *certainty*, and *perspectivity*. In Skirbekk's terminology, power is related to conceptualization: "In short, different disciplines and sub-disciplines conceptualize the same phenomena differently; different conceptualizations let us see or perceive *different aspects of the same phenomenon*" (p. 15, Skirbekk's emphasis). As different aspects become visible with different concepts, these concepts also convey different sets of values. In this way, there is a "spillover from *conceptual* presuppositions to *value* questions – a spillover that might be contentious, and thus be seen as a power in disguise". (p. 15) This understanding of power resonates with the Jeløya conference, where research- and education communities are casually referred to as "moral spaces" (NAVF 1976 p. 4). Conceptualization as power does not only have theoretical implications: "living humans may be influenced by the way they are conceptualized and described by various disciplines, especially by disciplines and kinds of expertise that are dominant or hegemonic in certain settings. In short, these are cases of 'power to define' (*Definintionsmacht*)" (Skirbekk 2019, p. 15). I will get back to this point in section 7.1. below. For now, I will let it suffice to say that Skirbekk's understanding of conceptualization as 'the power to define' relates directly back to

the causal belief of modernity as differentiated institutions, expertise and rationalities. Who defines problem complexes, how is it done, which actions does a specific definition generate, and what kind of rationality is reaffirmed in the process? These are typical examples of questions informing a VT approach.

Skirbekk (2019) problematizes scientific certainty in a brief, but effective manner: "To what extent are scientific and scholarly research and results certain, or uncertain in some sense? Can they be trusted? Surely, not always. It depends!" VT examination is necessary because certainty is contingent. Likewise, Fjelland (1995) sees as a precondition for the very existence of VT that "the question of what it is that constitutes truth, and what should count as a scientific fact, is not entirely unproblematic" (p. 21). The question concerning scientific truth and certainty is in VT not a matter of arguing whether or not 'objective truth' is feasible, but of examining the relative validity and accountability of truth claims and thus assessing their realization in society. The question of certainty relates back to the emphasis on the importance of understanding what science can and cannot deliver. The VT attitude towards certainty does not revolve so much around opposing 'hegemonic epistemologies' as is the case in CNS, but does indeed rest on a normative premise that knowledge claims should be subjected to examination.

Skirbekk (2019) identifies perspectivity as an epistemic challenge for the researcher "rooted in the discipline-based narrowness of his or her *conceptual perspective*" which amounts to a "lack of reflection on one's own discipline-based presuppositions (and limitations)" (p. 17). The epistemic challenge of perspectivity corresponds to what the Jeløya-Conference identified as "certain lacks and needs when it comes to research, teaching and institutional politics" (NAVF 1976 p. 13). Skirbekk sees the task of VT as one of sorting out the confusion and overload caused by increasing specialization and an ever-growing scientific literature (Skirbekk 2019, p. 17). When it comes to the intended impact of this epistemic perspective, VT operates

with a different kind of normative project than does CNS. An illustrative example is that of reductionism; from a VT perspective, scientific reductionism is acknowledged as an indispensable part of scientific practice. The requirement of perspectivity is realized in the requirement to reflexively articulate the relationship between scientific reductionism and real-world complexity within the specific specializations or research projects (Strand 2019 p. 10).

Notably, Skirbekk's (2019) epistemic challenges of power, certainty and perspectivity realize a problem of self-reference; the critical research itself may itself fall prey to the criticism it poses. The problem of self-reference can probably not be eradicated, particularly when it comes to critical research on knowledge practices. In order to address this issue, Skirbekk (2004) emphasizes the importance of specificity in VT research. Studying specific cases and avoiding undue generalization is a way of preserving the legitimacy of VT research (Skirbekk 2004 p. 8). A consequence of this, is that the answers generated by this kind of research perhaps to a lesser degree open for generalizable truth claims. On the other hand, this limitation may increase the potential relevance of these conclusions.

This dissertation meets this call for specificity through the analytical approach of close readings. However, I cannot claim that this dissertation is a case of 'ideal' VT research. The major reason for this is that the legitimacy of a VT approach should ideally rest on a double-competence on the part of the researcher. A double competence would ideally ensure validity because the critical perspective would address internal problems within the knowledge practices under scrutiny. As I am not a public health expert, the onus is on me to address Skirbekk's (2019) epistemic challenges in my own work. Therefore, I will return to this issue in section 7.1. below. There I will discuss the critical perspective of this dissertation in relation to the distinctions between 'internal' and 'external' VT (Fjelland 1995) and between 'critical' and 'positive' research (Skjervheim 1996a; Skjervheim 1996b).

6. Paper presentations

6.1. Paper I)

Paper I) "Towards an analytics of healthism – An epistemological discussion of a critical concept," makes use of Dean's (1999) notion of concepts as analytics in order to explore the concept of healthism. It sprung out of some epistemological and methodological challenges which arose in the process of trying to apply the conceptual apparatus of CNS in a Norwegian context. Paper I) engages in a theoretical discussion of the critical concept of 'healthism' by treating it as an 'analytics' (Dean 1999) rather than as a comprehensive explanatory device. It was informed by an epistemic interest of disentangling the critical apparatus of its broader ideological implications and normative assumptions, which may result in an internally coherent criticism which nevertheless risks missing its target. Close reading of core text (Crawford 1980; Skrabanek 1994b) found an immediate tension in its development and use: It is simultaneously used as an explanatory device and as an analytical tool. Unpacking the concept of healthism, the paper illuminates the epistemological limitations of the concept of healthism. Jan Reinert Karlsen and I developed healthism as an analytics based in the following components: The pursuit of health is cast as a political project; a positive health definition expands the meaning of 'health' to include all that is good in life; well-being is reduced to a specific set of lifestyle modification; 'health' becomes a value which is imposed at the expense of other values; 'healthy behavior' becomes conflated with socially conventional behavior.

It is a central argument in Paper I) that it is necessary to separate between critical concepts as analytic functions, and the social context within which they are developed. Observing a conflation between 'healthism' and 'neoliberalism' in more recent scholarship, we tested the components of healthism as 'neoliberal rationality' (Ayo 2012) against illustrative empirical examples in a Norwegian welfare state context. This exercise makes visible how

contextualization of health practices may challenge assumptions inherent to the critical concept of healthism.

Healthism, by virtue of being a critical concept, necessarily carries with it a high degree of normativity. Through these examples, we wanted to use the concept of healthism in a way which made it possible for the object of examination to resist or challenge this normativity. This means challenging the potential of the healthism concept to function as an explanatory device in and of itself. By in effect limiting the explanatory potential of the healthism concept, we aimed to reaffirm its potential to address specific and contextualized health practices. On a broader level, we wanted to address reification as an inherent problem of critical conceptualization by emphasizing the difference between a concept as an analytical function and as an ontological entity.

6.2. Paper II)

Paper II) "The Unstable Meaning of 'Social Inequity in Health': a study of a Norwegian public health intervention from political outline to implementation and evaluation" was inspired by the initial question: if the Public Health Project in Kindergartens is the solution, then what kind of problem is it a response to? It addresses the intervention as a realization of political public health strategies and agendas. Employing reading strategies from discourse analysis on the documents surrounding the intervention from national to local level through to project reports, evaluations and suggestions for further development, I address the question: *How does the meaning of social inequity in health (SIiH) change in the process from public health policy to practical implementation and evaluation?* Drawing on the terminology of Laclau and Mouffe (2001/1985), the reading is informed by a focus on the problems definitions as they are

articulated in this intertextual chain of documents. It is motivated by a realization that the relationship between lifestyle as a risk factor for health on the one hand, and social determinants for health on the other, carry with them a range of tensions which may be more or less articulated in public health discourse. The analysis is carried out in 4 steps organized by administrative levels, which together make up a narrative of how the meaning of SIiH changes throughout the proceedings.

Analysis shows that in the overarching political agenda represented by the white paper 'Prescriptions for a healthier Norway (2002-2003)', SIiH is portrayed as a complex problem of social justice, outlined in a reflexive problem understanding within which individual lifestyle is one of several components. On the level of local administration, SIiH is connected to social disparities and social determinants such as education, and the problem definition is again focused on complexity. Education as a social determinant for health informs efforts such as the Free Core Time initiative subsidizing childcare for low income families and targeting immigrant families. The relatively shorter lifespan in the area compared to the rest of the Norwegian population, is connected to individual habits rather than to e.g. access to and quality of health care services. This indicates that the local level public health strategy takes on a long term perspective on public health issues. In the practical realization of these political agendas, the Public Health Project in Kindergartens, the problem definitions are directed concretely towards diet and physical activity. Analysis finds that the political anchoring of addressing SIiH realizes a specific 'public health perspective' which takes privilege over other kinds of knowledge. Through a specific notion of 'competence' a knowledge hierarchy is established where individual differences such as values and preferences are targeted as problems to be solved insofar as these differences come into conflict with the 'public health perspective'. At the level of evaluations and further policy, a central finding is that evaluations did not question the relationship between intervention and the overarching problems they are designed to

address. In the outline for further policy, individual and social factors influencing health appears to be articulated as to parallel causalities rather than as one entangled problem complex.

In conclusion, the relationship between lifestyle and social determinants for health is articulated as a complex problem in policy documents outlining public health strategies, but this complexity is lost in the process of implementation. The examination of the changing problem definitions of 'social inequity in health' from policy to practice also sheds lights on how commissioned and internal evaluations are not designed to address the relationship between political visions and their realization in practice. In this paper, I call for a space for critical reflexivity in the documentation of public health practices which may explicate the premises upon which they rest. I argue that without such an explication, it is difficult to assess, discuss and debate the limits to, and legitimacy, of specific interventions. In this way, Paper II) provides a platform for discussing the legitimacy of intervention, which is missing in current modes of evaluation.

6.3. Paper III)

In paper III) "To what extent are interventions addressing physical activity in children evidence-based? – A frame analysis of a Norwegian public health project in kindergartens" Merle Jacob, Jan Reinert Karlsen and I were interested in the evidence base informing the intervention's use of quantification in ensuring that all children reach 60 minutes of moderate to intensive physical activity every day. We employed frame analysis (Goffman 1974; Rein and Schön 1977) in order to discuss two key aspects of the intervention: i) *the framing of a lifestyle intervention aimed at kindergarten aged children as a contribution to social equity in health* and ii) *to what extent physical activity is an evidence-based intervention*. Identifying two framings informing the

project reports, we examined a) in what way health and lifestyle as physical activity are coupled in the public health agenda informing the intervention, and b) how evidence basing is represented in the project reports, what kind of knowledge was used, and in what way this knowledge was used. The coupling between physical activity and health is made in the white paper "Prescriptions for a healthier Norway" (Ministry of Social Affairs 2002) informing the intervention. There is a tension in the white paper between a conception of 'lifestyle' relying less on agency and more on living conditions and social status on the one hand, and on the other, a conceptualization of lifestyle as personal choices influencing health. In the intervention, a causal relationship between physical activity and health is further crystallized through practice: the intervention is not referred to as a 'sports intervention', but as a project of public health and health promotion. Drawing on (van Hulst and Yanow 2016), the analysis was organized in terms of the function of 'evidence-based' as contributing to *sense-making*, *story-telling* and *naming* as organizing principles. We found that defining the role of physical activity for health contributed to a sense-making process by rendering the problem of health solvable through lifestyle modification. Furthermore, we found that the conceptualization of 'evidence-based', along with the metaphor of prescriptions contributing to 'naming' the intervention by way of metaphor. On this basis, efforts to ensure that children fulfill the 60-minutes requirement and the graphs and diagrams provided by quantification can be said to contribute to a story-telling component because it contributes to the creation of a coherent and meaningful narrative.

The main finding is that evidence basing is framed both as "evidence-based practice" i.e. an intervention informed by available evidence, and as "objective measurements" i.e. a project accumulating evidence to be used in intervention. These frames have conflicting implications for whether to understand the intervention to have a normative or descriptive function. In the framing of the intervention as 'evidence-based practice', the soundness of the project rests on the quality of the evidence base, and the relationship between this evidence base

and the evidence-based practice. In this case, cutoff-points for intensity levels set up a standard for ideal physical activity, and the quality of the project would be measured in terms of the share of children in the intervention that eventually fulfill the standard. The cutoff-points would therefore have a normative function. There is no universal agreement of what it is that constitutes 'moderate to intensive physical activity', and no standard for cut-off points defining physical activity recommendations for children younger than 5 years.

In the framing of the intervention as 'quantitative knowledge production', the cutoff-points for physical activity function as a standard for comparison, not as a standard for ideal physical activity. In this case, quantitative measurements function as a proxy for physical activity and used for ensuring quality. Their function would therefore be primarily descriptive. A central finding in Paper III) is that these two framings carry with them different justification for the use of the quantitative methods. In consequence, the validity and accountability of the intervention become elusive. This is problematic because it makes it difficult to assess and discuss the project's legitimacy.

7. Discussion and conclusions

In this section I will discuss my approach and findings in the light of the preceding sections. The first subsection approaches Skirbekk's (2019) epistemic challenges in a reflexive discussion of this dissertation as 'critical research. After this, I go on to focus on my findings in the light of previous research presented in sections 3.1. and 3.2. above. I have structured the discussion in accordance with the three axes of enquiry in this dissertation: the realization of policy, the operationalization of 'evidence-based practice', and the critical perspective itself. Subsection 7.2. addresses tension in tensions in quantitative evidence as quality measure.

Subsection 7.3 addresses challenges in public health as the governance of social equity in health. Subsection 7.4. addresses the prospects and pitfalls of the role of critical scholarship in public health practice. Closing this chapter, I discuss the conclusions, weaknesses and limitations of the approach taken in this dissertation in 7.5. before I go on to suggest direction for future research in 7.6.

7.1. This dissertation as 'critical research'

In this subsection will I pick up the thread where I left off in section 5.2. above and discuss the critical perspective of this dissertation. Addressing the epistemic challenge of perspectivity, Skirbekk (2019) describes VT as a "self-critical epistemic practice and competence, primarily in academia, at the universities, but also in public life" (p. 17). How can we understand VT as 'self-critical practice'? It is helpful here to note the difference between internal and external VT (Fjelland 1995). Internal VT would typically come from within the academic discipline. Hence, it would be a self-critical, normative practice. We can understand the research education in VT at PhD-level which SVT provides at the University of Bergen, as an effort to cultivate internal VT. External VT, on the other hand, would according to Fjelland (1995), be a more descriptive endeavor, focusing on the relationship between science and society (Fjelland 1995 p. 223). As I am not a public health expert, this dissertation is a case of external VT. Does this mean that it is a purely descriptive endeavor? To this I would answer: "Not really". It is a normative project insofar as it poses critical questions to knowledge practices, and insofar as the answer produced by this perspective is contingent on the point of view from which the question is posed. It does, however, take into consideration a central normative premise that springs out of what Skirbekk (2019) refers to as perspectivity (see section 5.2. above): Fjelland (1995) notes that "although

a moral disassociation may be understandable, there is hardly any doubt that a criticism that takes into consideration the premises of the work, is more effective" (Fjelland 1995 p. 19). As I understand this statement, it separates between on the one hand, criticism that assesses a work (in this case public health practices) by imposing a set of values or validity requirements against which the knowledge production that constitutes the object of VT examination is assessed, and on the other hand, criticism that actively seeks to understand the premises upon which the object of research rests. This can be seen as a normative postulate inherent to a VT approach.

Skirbekk's (2019) notions of conceptualization as power, certainty as contingent, and perspectivity as limited, carry an inherent duality. They are focus points for VT research, but with that, the researcher in VT is obliged to adhere to these challenges in her own research, at least as ideals. These points trace back to another of SVT's forefathers – Hans Skjervheim – and the distinction between 'positive' and 'critical' research (Skjervheim 1996a 1996b). 'Positive' research in Skjervheim's terminology denotes research that has a relatively inconsequential relationship to its object – research that does not affect the research object *per se*. 'Critical' research is understood as standing in a hermeneutic relationship to its object of study; it has the potential to change the self-perception of a perspective or a practice, and may also affect the perception of the legitimacy of a practice or institution (Skjervheim 1996a; Skjervheim1996b). We recognize in Skjervheim's conceptualization of 'critical' research, Skirbekk's (2019) epistemic challenge of conceptualization as power discussed in 5.2. above. VT is often a critical enterprise (Skirbekk 2004). Performing critical research therefore carries with it a responsibility to take seriously the message of the (in this case) discourse which is subjected to study so as to avoid objectification of that which is studied. Objectification here means treating the discourse as an absolute entity and the researcher as an independent, neutral observer. The plea to take seriously the discourse of study is in a sense a response to the Ricœurian "hermeneutics of suspicion" (Holst 2015) which has recently sparked debate within

the field of critique (Felski 2015). I pay heed to this normative premise of taking seriously the object of study by not assessing the discourses examined in this dissertation in the light of validity requirements posed by external theoretical frameworks. Rather, I measure the claims of these discourses against what they say about themselves. In this way, although this dissertation is not purely descriptive, I have actively worked against the 'moral disassociation' which Fjelland (1995) identifies as an inclination or pitfall of external and critical VT. In order to further situate my work as critical research, I will outline three different encounters that have occurred during the process of writing this dissertation, and which illustrate different potential positions of this dissertation's perspective:

*Ironic objectification***:** Early on in this process, I participated in an inter-Nordic public health conference along with more than 1500 representatives from all fields and levels of public health research, policy and practice. The theme of the conference was social equity in health. The atmosphere was vibrant and energetic, and as a humanistic scholar with no particular agenda within the public health policy program that had been discussed, I was indeed more of an observer than a participant. As the conference drew to an end, a public health official gave his closing remarks. At this point, the Norwegian Air Force Marching band was introduced and started playing Gustaf Sundell's *Toward Brighter Times*. As a symbolic *homage* to the theme of the conference, all 1500 participants were encouraged to join the band and march out behind the uniformed men. This scene was striking to me due to the overwhelming certainty that was displayed in military draping, which clashed so blatantly with my VT-training. My knee-jerk response, which stuck with me for quite a while after the event, was to take on a detached approach, an approach which can be understood as 'ironic' critique (Hacking 1999).

Loga (2003) has observed that welfare state discourses of governance may, if they are justified by 'kindness' or 'goodness,' leave little space for informed opposition or criticism. Hence, she notes, the critical response may become one of irony and sardonic laughter (p. 79).

A danger of engaging with discourse analysis in this mode, is that analysis may come to imply superiority on the part of the researcher, who sees herself as 'knowing better' and having access to a level of insight which is unavailable to those criticized (Felski 2015). Recalling CNS above, it would have been possible to employ concepts of 'hegemonic epistemologies' or 'neoliberal governmentality' on the material studied in this dissertation in order to make a certain kind of analytical claims. Employing these concepts as 'positive' – or descriptive – in Skjervheim's (1996a; 1996b) sense, would, however, while potentially informing an internally coherent critique, evade the notion of Norwegian public health as a social project. If the empirical reality is not able to oppose or challenge the implications inherent to critical concepts, we run into a problem analogous to the problem of induction (Popper 1963). While critical analysis would potentially be persuasive due to its ability to envelope social phenomena in the critical framework, it would not necessarily be accountable, precisely due to its ability to envelop 'anything and everything'. The diagnosis provided by the theoretical framework itself would not necessarily correspond to the real-world object of examination. In this sense, such an analysis would be an example of objectification in Skjervheim's terminology.

*Differing notions of validity***:** In 2015, I presented my work (Nilsen 2015), to a diverse audience where the majority of the participants were ethicists in some shape or form. My immediate impression was that the presentation went well. In the discussion afterwards, there was general consensus about why my questions towards public health practice was important and about how and in what sense the project I was studying could potentially be problematic. Later in the day, however, I was approached by a person working within public health research. They were puzzled by both my presentation and the discussion that had followed: "I noticed that there was general consensus in the room, but I was left with a terrible feeling of not seeing the problem that you all seemed to agree upon." While my impression had been that the discussions in the session had been both interesting and productive, it became clear that it had

not at all resonated with present public health experts. What had gone wrong here? As a first observation, I would note that this could be taken as an example of what I referred to above as differing notions of validity.

The general consensus was, then, contingent on a shared notion of validity (or even rationality) on behalf of the ethicists, which the expert within the field that was discussed did not adhere to. This encounter can be related to an ongoing debate within STS about the role of critical scholarship. Latour (2004) has pointed out that critique may have the effect of crating polemic rather than expanding the scope of relevant discussion. As an antidote to this tendency, Latour (2004) introduces a focus on the 'matter of concern' rather than 'matters of fact'. Puig de la Bellacasa (2011) draws on this perspective and notes an inclination within critical scholarship to resort to "totalizing explanatory visions" (p. 95) rather than engaging with the subject at hand. Expanding on Latour's matters of concern, Puig de la Bellacasa (2011) suggests emphasizing the 'matter of care' – a focus on neglected things. The empirical material studied in this dissertation does not allow for speculation about how the participants are affected (for better or for worse or neither) by the intervention. Nevertheless, the matter of care in this dissertation is the broader implications that public health practice may have for those who are worked upon. The examinations in the three papers is informed by a preoccupation with the legitimacy of health practices in terms of the scope, mandate, and premises of governance that they represent. Following Augestad (2005), an underlying motivation for this dissertation has been the effect health practices have on the question of "how we should regulate our time" (Augestad 2005 p. 40).

VT as hermeneutic practice: The last encounter that I will relay in this subsection took place at a conference on life quality. The participants were a mix of experts, from health care scholars to public health professionals. I presented my problem statement and an early version of some of the points that have since come to be this dissertation. In the subsequent discussion,

one of the participants had several objections to my approach. As a public health professional, she was familiar with the context of the project studied in this dissertation. One of the objections was that the public health work being done in Grorud Valley was too important to be subjected to the kind of critical examination that I had just presented. The message was more or less one of "there are pressing problems in this area, and we have to do something even if our tools may at times be imperfect". Again, a clash of rationalities is detectable: From my opponent's perspective, the enquiries in this dissertation would be irrelevant. One could even question the ethical legitimacy of questioning a much-needed intervention targeting social problems in order to improve living conditions for the population of this area. Who in their right mind would be 'against' social equity in health or evidence-based practice? And what could be wrong with promoting healthy eating and physical activity in public institutions such as kindergartens? Engebretsen and Heggen (2012) points out that the language of knowledge-based welfare practices of governance is often self-authorizing (Engebretsen and Heggen 2012 p. 147). For this reason, it is necessary to question knowledge-based practices even when – or perhaps particularly when – they are motivated by doing good. From the perspective of VT and of the analytic framework of Engebretsen and Heggen (2012) as projects of democratization, the seemingly obvious 'goodness' of the intervention is precisely what necessitates examination of what 'social equity' and 'evidence basing' means in practice and what kind of rationality these knowledge practices produce.

A second objection to my presentation at this conference was that that my reading of the project reports rested on a misconstrued premise. The criticism went that I had taken it all too seriously, and not payed heed to the fact that a project report is a funding-tool, and not a 1:1 representation of what has been going on. Reports, this expert reminded me, are written in a certain way in order to adhere to a particular political agenda and ensure funding. This response can be taken as an incident of what Strand and Cañellas-Boltà (2017) sees as the 'analysist' or

'theorist' in effect becoming an intruder. Particularly if the scholar claims epistemic or intellectual authority playing out a philosophical perspective as a 'rhetoric trump-card' (Reid 2017). It is also an example of one of the pitfalls of performing external VT without a sufficient understanding of the field under study. What happened next is therefore worth noting: the next comment in the discussion was more enthusiastic and found that "these are the questions we need to ask when we are out in the field: what is it that we want to achieve, and are we employing the appropriate means to achieve it?" From this perspective, my approach was seen as a relevant contribution to public health practice. Not necessarily because my analysis provided a previously unheard of 'truth', but because the questions opened up by a VT approach were seen as relevant to public health practice. The effect of this encounter was twofold: on the one hand, my own perspective was adjusted and supplemented by public health expertise, on the other hand, my perspective contributed to an expansion of the space for reflexive examination. In this sense, it is possible to view this encounter as an instantiating case of 'ideal' VT functioning hermeneutically in a two-way dialogue across disciplinary boundaries.

7.2. Tensions in quantitative evidence as quality measure

In this subsection, I will discuss the broader implications of quantitative measurement in public health practice. Addressing the scientific approach to public health practice, Paper III) in this dissertation addresses the evidence base cited in the intervention. In the project reports, 'evidence' particularly refers to quantitative measurements of physical activity. A first observation here, is that the disciplinary anchoring of the project is not the field of public health, but the field of sport pedagogy. The evidence base largely consists of studies in sports science.

The link between physical activity, 'lifestyle' and public health is made through several steps, crystallized through an objective of 'prevention'.

'Evidence-based' is in the intervention operationalized in quantitative terms, through the use of accelerometers measuring intensity, frequency and duration of physical activity in individual children in order to map and ensure that children fulfill the national recommendation of 60 minutes of moderate to intensive physical activity every day. A central aspect of this evidence basing is that the measurements are quantitative and therefore objective. One benefit of this quantification is that it makes the project measurable. However, paper III) finds that the use of quantitative evidence is framed in two different and incompatible ways within the project. On the one hand, it is framed as 'evidence-based practice' on the other, it is framed as 'quantitative knowledge production'. This has consequences for the perceived function of cutoff-points for categorizing intensity levels of physical activity, and for the role quantification plays in ensuring quality.

Within the framing of the intervention as 'evidence-based practice', the official recommendation of 60 minutes of physical activity is translated to a specific set of cutoff-points through quantification. In Paper III), we find that this normative use of cutoff-points does not correspond to the evidence base, which uses accelerometric measurement descriptively as a means of mapping physical activity in children. The normative use of quantitative measurement resonates with what has been referred to as a 'biomedical model' of health promotion, focusing on one medically defined problem at the time (Erben et al. 1992). The terminology of 'evidence-based intervention' and 'prescriptions for a healthier Norway' arguably acquire legitimacy by enrolling a conceptual apparatus from evidence-based medicine (EBM). The problem is that, the relationship between lifestyle intervention and health outcome is not a linear one, and therefore not testable in EBM terms (Erben et al. 1992). Johns and Tinnings (2006) argue that a biomedical model of physical activity for health rests on the flawed assumption that health

can be controlled through the right types, dosage, and frequency. The association between 'evidence-based intervention' and EBM is therefore largely metaphorical. This is emphasized by the observation that there is currently no unified indicator for defining 'moderate to intensive physical activity' and no recommendations at all for children under the age of 5. Furthermore, a dissonance is detectable between the conceptualization of the intervention as evidence-based practice and its use of the cited evidence base. As the cited evidence base is largely descriptive, the normative use of the accelerometric cut-off points in effect introduces a standard for what it is that constitutes 'healthy physical activity levels'. However, since the intervention is framed as 'based in available evidence', this active transition from descriptive to normative is under-communicated and thus not open for assessment.

Paper II) in this dissertation finds that the policy agenda treats the relationship between lifestyle and health in a reflexive manner emphasizing complexity. The intervention, however, conveys a message that lifestyle modification is necessary in order to 'achieve health.' Implementing lifestyle modification as prevention, the intervention incorporates an understanding of physical activity as directly and causally related to health status in and of itself. Within the intervention, physical activity is operationalized as a causal factor in determining health outcome. In this way, the problem becomes concretized and solvable. However, it also means that quantified knowledge is favored over qualitative knowledge. The quantification of physical activity is not able to approach qualitative differences in activities and behavior. This point is noted in the intervention's methodological evidence base, but not picked up on in practice: accelerometric measurement does not take into account sedentary activities which there are no recommendations to limit, like reading, drawing, puzzle solving, etc. (Cliff et al 2009). Others have pointed out that a public health agenda of 'physical activity' in children neglects the contribution of free play to well-being and thus comes into conflict with

social and emotional aspects of 'health' (Alexander et al. 2014). These aspects are not addressed neither in the problem definition nor in the methodological approach of the intervention.

The tension between qualitative and quantitative knowledge in the intervention speaks to a more general tension in health promotion. Scholars have observed a dissonance between public health models emphasizing subjective well-being on the one hand, and requirements of evidence-based practice on the other (Erben et al. 1992; Cameron et al. 2008). Paper II) in this dissertation addresses problem definitions at different administrative levels of public health. A central finding in Paper II) is that individual differences – i.e. the values and preferences of the participants in the intervention – become articulated as problems that need to be solved in order to promote health. This problem definition works and is worked through a knowledge hierarchy, where the project managers perspective represents a specific and privileged 'public health perspective' which takes privilege over other kinds of knowledge. Connecting Paper III) and Paper II), it is possible to argue that the framing of the project as 'evidence-based' contributes to the production/construction of this hierarchy. The conceptualization 'evidence-based' can then be said to represent a power dimension in public health intervention. This observation coincides with McCormack and Burrows (2015), who find that those subjected to intervention in an area classified as 'vulnerable' must come to know themselves as ignorant in order to become healthy.

In the framing of the intervention as knowledge production, the quantitative measurements are used descriptively for the purpose of ensuring quality. The cutoff-points identifying low, moderate, and high intensity levels make it possible to provide diagrams which demonstrate an increase in physical activity. A consequence of this strategy is that qualitative aspects are left out of the quality-definition within the intervention. The link between physical activity and health is then operated as a direct and causal one, and quality is reduced to a matter of quantification. The quantification of physical activity has been criticized within sports

science for focusing on physical 'fitness' rather than on the social context which shapes meaning, opportunity and equality (Fullagar 2019; Johns and Tinnings 2006). The degree to which quantitative knowledge is a valid indicator of the quality of the intervention, depends on the framing of the problem it aims to solve. The intervention cites as its objective to contribute to addressing social inequity in health. Paper II) in this dissertation finds that 'health as lifestyle' and 'health as complex social issue' are articulated in two parallel problem understandings. It is by understanding health as predominantly a matter of lifestyle that external evaluations assess the intervention as an innovative success. This finding can be connected to the finding in Paper III) that physical activity in the political agenda goes from being portrayed as a one of several factors influencing health, to becoming treated as a problem in and of itself through a rationale of prevention.

This dissertation finds a tension between the cited objective in the intervention and the means with which the project is carried out. This tension is related to a more general issue in public health concerning the relationship between the complex causality of health on the one hand, and requirements of measurability on the other. Scholars have addressed this issue, but with different normative conclusions. Erben et al. (1992) find that singular indicators of health – such as physical activity – make it impossible to assess the outcome of preventive health intervention because the relationship between indicator and health outcome is not clarified. This is what Skrabanek (1994a) refers to as the 'black box' of public health. Erben et al. (1992) therefore call for a model of health promotion which to a greater degree incorporates subjective experiences of health. Cameron et al. (2008) frame the same problem in a different way and hence reach a different conclusion. Recognizing a tension between a holistic psychosocial model of health on the one hand, and an emphasis on measurability on the other, Cameron et al. (2008) argues that the wider perspective on health promotion makes it difficult to demarcate what public health practitioners can and cannot deliver on the basis of their competence –

particularly when it comes to issues of social inequity in health (p. 230). Whereas Erben et al. (1992) make the case for a more inclusive public health perspective with more focus on subjective health than on measurability, Cameron et al. (2008) claim that a more specific take on particular areas of intervention would be helpful for practice. Both of these studies illuminate health intervention as working with epistemological imperfection. Erben et al. (1992) resonates with the reflexive, social and complex problem definitions which informs public health policy and the GVIURP-project. It is, however, not clear how to operationalize such a perspective. Cameron et al. (2008), on the other hand argue for a specific and operational, but in consequence more reductive and fragmented approach.

It is not the place of this dissertation to decide which of these approaches are 'better' or 'worse'. They do, however, provide a backdrop for discussing the relationship between complexity and measurability in the intervention studied in this dissertation. The use of accelerometric measurement suggests that the intervention is based in Cameron et al. (2008) more fragmented public health model. Here, however, the contextual backdrop of the GVIURP project comes into play. Villalonga-Oloves et al. (2018) call for multilevel intervention in order to incorporate a perspective of social capital in public health. As the intervention is a part of an overarching urban development program, the fragmentation can be seen as justified. This idea is supported by the focus on education within the GVIURP project, and the Free Core Time initiative of subsidizing kindergarten cost targeting groups of lower socio-economic status. Yet, it is worth asking how these fragmented initiatives work together. What happens within the different efforts which together make up the GVIURP project? Paper II) in this dissertation calls for critical reflexivity when it comes to the relationship between problem definitions and the solutions offered by the intervention. One way of realizing this critical reflexivity could be to follow Cameron et al. (2008) who see the need of identifying and explicating stakeholders' perspectives in order to clarify what specific expertise can and cannot deliver. The

quantification of physical activity involves reducing the meaning of 'physical activity' to cut-off points and graphs. From a VT perspective, what is needed then, is a clarification of the prospects and limits to this approach in relation to a) what it is that constitutes 'quality' in the intervention and b) the role of quantification in addressing the overarching problem of social inequity in health.

7.3. Tensions in the governance of social inequity in health

In this subsection, I will discuss the Public Health Project in Kindergartens in the function of realizing public health policy. In paper II) I refer to GVIURP as a case of 'comprehensive governance' because it operates on several administrative and societal levels addressing the living conditions in Grorud Valley, aiming to address the complexity of social inequity in health in a cross-sectoral project design. The intervention targeting diet and physical activity in kindergartens is only one of several measures initiated under the GVIURP umbrella. From this starting point, in what way can we understand the intervention as an expression of the governance of social inequity in health? Carter (2015) employs critical discourse analysis on a commercial and community-based health promotion enterprise in the U.S. and finds that the project exemplifies 'neoliberal governmentality', but also 'liberal paternalism'. The former finds its expression in encouraging people to govern themselves, and affects how they perceive, problematize and manage their own health, thus emphasizing personal responsibility for health through 'technologies of the self' (p. 380). Another expression of neoliberal rationality is found in that the U.S. project is organized in a way that sidesteps issues of social inequity. 'Liberal paternalism' on the other hand, is expressed by targeting efforts towards the environment of the community in order to more indirectly affect behavior, in a way associated with 'nudging'. In

this way, Carter (2015) finds that the examined project avoids a pure individualization of health responsibility whilst also averting a focus on social determinants of health which in a U.S context would bring associations to 'hard paternalism' or 'nanny-statism' (p. 380).

Carter's (2015) distinctions open for a problematization of what kind of governance the intervention studied in this dissertation represents. Targeting individual lifestyle, it could be understood in terms of 'neoliberal governmentality' where parents and children, along with or through staff, are equipped with technologies of self-governance in order to manage their health. From this perspective it would be particularly significant that qualitative understandings of health are replaced by quantitative measurement functioning as a proxy for health in a way which ultimately individualizes the responsibility for health. On the other hand, the lifestyle modifications as they are operationalized in the intervention, are anchored in a rationale of social equity in health. They are worked through the institution of public kindergartens substituted by the state and funded by local and national state authorities working directly and actively upon the population. Seeing this in relation to the Free Core Time initiative which employs very active recruitment strategies, it becomes clear that the intervention is not based on 'nudging' in the sense that Carter (2015) understands as 'liberal paternalism'. Following this reasoning, one could classify the intervention as 'hard paternalism' or 'nanny stateism'.

Is 'hard paternalism' 'better' or 'worse' than 'liberal paternalism'? That depends on the value set informing an assessment. It is 'better' from the standpoint that the state should take more responsibility for the public's health, as long as we accept a premise that 'health' is reached through physical activity and diet. It is 'worse' from the perspective that individual autonomy is a pillar of liberal democracies, although some have argued that the human and societal costs of lifestyle related diseases are so great that they trump concerns about autonomy (see Newdick 2017). The point here is that the findings in this dissertation could be read as expressions of strategies of 'neoliberal governmentality', as well as 'hard paternalism' where

the state interferes in the population's everyday life, depending on one's political inclination. Therefore, these categories are not necessarily helpful for understanding or explaining the processes taking place within the intervention studied in this dissertation.

Another way of approaching implications of the governance of lifestyle is through the concept of healthism. In paper I) I identify the analytics of healthism as: the pursuit of health cast as a political project; a positive health definition expands the meaning of 'health' to include all that is good in life; well-being is reduced to a specific set of lifestyle modification; 'health' becomes a value which is imposed at the expense of other values; 'healthy behavior' becomes conflated with socially conventional behavior. The concept of healthism directs our gaze towards the social implications of a specific focus on health practices. How does the intervention correspond to the analytics of healthism?

As a first observation, 'health' is a fundamental rationale informing the GVIURP project (see Paper II). Within the intervention, prevention of lifestyle related disease is a central motivation. Hence, the pursuit of health is cast as a political project. Does the intervention operate with a positive definition of health which includes all that is good in life? Paper II) finds that the public health agendas informing the intervention reject WHO's absolute definition of health. Still, these policy documents operate with a complex and holistic health perspective. I also note that reflections about what it means to be healthy are absent in the project reports. This component can be related to the question whether well-being is reduced to a specific set of lifestyle modification. Furthermore, paper II) finds that diet and physical activity are seen as means to 'achieve health'. Paper III) examines the very specific quantitative translation of recommended physical activity. This is not to say that the intervention represents reduction and therefore 'is' healthism; the reduction of a complex problem is not necessarily unacceptable nor illegitimate in and of itself. Reducing a holistic conception of health to ideas about diet and physical activity may indeed be beneficial for the population's health on some level.

Notwithstanding, it is worth asking what conceptions of health this reduction may come into conflict with. This question also connects to the question whether the value of 'health' is imposed at the expense of other values. Understanding 'health' as prevention and prevention as diet and physical activity shifts the focus from e.g. accessibility and quality of medical treatment for the identified groups. Thus, the focus is turned towards the question whether this understanding of health subjugates other focus areas which may be perceived as more urgent from a different value perspective. Furthermore, a rationale within which issues of social justice are framed as a health concerns, realizes a set of measures such as the intervention studied in this dissertation. Within this rationale, sports pedagogues provide an expertise which is engaged as a means to address social inequity in health. This expertise operates with a specific understanding of 'healthy behavior' which in the intervention is translated to 'competence'. Because 'competence' is so tightly connected to personal preferences in the intervention, it is worth asking if and how 'competence' as 'healthy behavior' is directly connected to essential factors for maintaining health, or if 'healthy behavior' may come to be conflated with 'socially acceptable behavior'.

Within the Norwegian public health agenda, 'lifestyle' is a component of 'living conditions' which in turn are seen as crucial for addressing social inequity in health. Somewhat paradoxically, anchoring the public health agenda in living conditions AKA social determinants for health, opens for active work upon individual lifestyle, particularly upon those who are categorized as 'vulnerable' or 'exposed'. The children targeted by the intervention are considered to be at risk on the basis of the social environment in which they grow up. Yet, a central effort is directed towards the children's behavior. As this rationale is operationalized, the perspective of healthism becomes useful because it draws attention towards the social meaning of 'health behavior'. Following the concept of the healthism to its extreme, it is possible to argue that this operationalization opens for a line of thinking where the act of not

engaging actively in preventive health behavior in itself can be seen as an expression of 'unhealth' and of social deviance. In other words, public health practices of lifestyle modification may introduce codes for right living which operate beyond the actual health outcome of e.g. diet and physical activity. This point holds particular relevance for the intervention studied in this dissertation because of the variety of cultures and ethnicities in Grorud Valley's population. The meaning and status of what is encompassed by 'health behavior' also have consequences for the pedagogical contents of public kindergartens and thus for children's everyday life and bildung i.e. their cultivation as social beings and citizens. I have noted above that bildung is a fundamental objective for Norwegian kindergartens (see 2.1. above).

The lifestyle concept in public health is a contested one, and several scholars have noted that a focus on individual lifestyle modification is prevalent in health promotion policy and practice in spite of contrary knowledge (see e.g. Alvaro et al 2011; Vallgårda 2011b; Larsen 2011; Warin et al. 2015). The empirical material in this dissertation does not allow for a deeper understanding of why and how the complex and reflexive health understanding in policy strategies are translated to lifestyle practices of diet and physical activity understood as 'competence' in the intervention. I therefore turn to the concept of 'preventive assemblages' (Niewöhner et al. 2011) as a way of focusing a tentative explanation. In an ethnographic study of a range of approaches to the prevention of cardiovascular diseases, Niewöhner et al. (2011) define preventive assemblages as "a complex network of practices integrating various actors, knowledges, and technologies" and note that these assemblages are centered around lifestyle as a modifiable risk factor (p. 725). Through the concept of 'heterogenous engineering', preventive assemblages are in the study understood as the process of making order out of the heterogenous – i.e. complex – processes that make up practices of everyday life (p. 726). From

this perspective, preventive intervention is understood as projects of engineering aiming to order heterogeneity with the purpose of producing healthy bodies.

According to Niewöhner et al. (2011), the 'engineers' performing the intervention install an order which corresponds more to the logic of their own expertise and may therefore be insensitive to the logic of the practices that they work to change (p. 740). This resonates with the findings of this dissertation on several levels. We can understand the knowledge hierarchy produced by the intervention as a result of 'heterogenous engineering', and we can understand the quantification of physical activity as a means of ordering the heterogeneity of children's behavior. Importantly, the perspective of Niewöhner et al. (2011) shifts the focus from the practitioners themselves when they emphasize that this 'lack of sensitivity' is not indicative of the practitioner's moral capacity or individual inclination: "It is largely a result of the preventive assemblage, which makes certain choices, actions, and patterns of practice more plausible than others" (p. 740). Following this reasoning, we could explain the translation of public health science and policy into lifestyle modification as a result of requirements of measurability; political mandate; the emphasis of evidence-basing; and parameters of evaluation. The criticism posed in this dissertation, would then be a systemic one rather than a critique of the specific intervention.

This explanation does not however, do away with what Fugelli (2006) refers to as the 'black hole' of health promotion, denoting the problem that potential adverse effects of a health promoting initiative are rarely reported on. In order to make the intervention accountable, and its legitimacy assessable, it would be necessary to make a space for critical and reflexive inquiry and articulation of what kind of social problem it is that the intervention solves, and what kind of potential adverse effects it may have, in project reports as well as in evaluations.

7.4. Critical reflexivity and public health practice

In this subsection, I will address some pitfalls and prospects when it comes to the role of critical scholarship in relation to public health practices, with a particular focus on critical reflexivity. The findings in this dissertation shed light on a tension between complexity and reduction in the translation of public health science and policy to practice. This tension springs out of the way in which the examined public health practices are operationalized in accordance with organizing principles such as 'evidence-based' and 'social inequity in health'. This dissertation finds that these operationalizations do not necessarily a) correspond to problem articulations as they are presented in public health agendas and b) adhere to a unified standard of evidence basing. It is not a postulate in this dissertation that discursive tensions must be eradicated in order for public health practices to qualify as valid, accountable and legitimate. Neither is it a postulate that public health must rid itself of epistemic imperfection. Articulating discursive tensions in public health policy and practice, this dissertation calls for a space for critical reflexivity in public health intervention. This is of particular importance because the notion of 'addressing social inequity in health through evidence-based practice' functions as what Engebretsen and Heggen (2012) refers to as 'self-authorizing' language (p. 147), based in a premise that the social benefit of the intervention is self-evident. The plea for critical reflexivity is motivated by the idea that critical reflexivity may counteract this power-dimension. But how can it be realized in practice?

Mansfield and Rich (2013) approaches this issue by seeing physical activity as 'public pedagogy'. Inspired by the Health At Every Size (HEAS) movement, the article makes a case for a critically informed approach to physical activity intervention, based in a premise that physical activity in health promotion needs to be revised in order to better incorporate the relationship between health and well-being. The article sees 'critical public health' not as a research field critically examining public health, but as public health practices incorporating

critical scholarship. This resonates with the understanding of internal VT (see 7.1. above). The critical perspective of Mansfield and Rich (2013) is directed towards a weight-centric focus on physical activity. Although the intervention studied in this dissertation does not revolve around a rationale of wight-loss, the core argumentation of Mansfield and Rich (2013) is relevant for the present discussion of the role of critical perspectives in public health practices. (This is in itself noteworthy, because it shows that the absence of weight and body size in a physical activity intervention does not in itself guarantee for a more comprehensive and holistic health-definition.) A central tenet of Mansfield and Rich (2013) is that critical and reflexive perspectives need to be integrated in policy and planning, and that there is a need to establish dialogue between critical and philosophical scholarship on the one hand and physical activity intervention on the other. Border-crossings and cross sectoral collaboration are also emphasized as important features for improving public health practices. While I am sympathetic towards this idea, the findings in this dissertation show that there are a several potential pitfalls to such a project.

First, the findings in Paper II) show that neither reflexive and complexity-oriented policy agenda, nor cross-sectoral collaborations are automatically transferred to comprehensive practices within these overarching frameworks. Second, critical scholarship, particularly of the philosophical nature referred to in Mansfield and Rich (2013) holds a privileged position in its mandate to generate questions, (see 4.3. above) and is not necessarily prepared nor equipped to provide solutions. Providing an often abstract perspective outside of, or in the fringes of, public health practice, critical philosophical scholarship may become construed as an intellectually superior 'trump-card' (Reid 2017), and the critical scholar an intruder rather than a collaborator (Strand and Cañellas-Boltà 2017). Furthermore, Paper I) illustrates that insights from critical scholarship are not necessarily transferrable from one context to another (see also 4.1. and 5.1. above). A central issue here is the problem of cross-disciplinary validity: critical scholarship

operates with its own requirements of validity which may or may not correspond well to the validity requirements of the practices under scrutiny. Second, while the analyses in this dissertation operate with the premise that the discursive tensions it addresses are unarticulated, it does not follow from that that they are unnoticed. If we turn our attention towards the preventive assemblages (Niewöhner et al. 2011) outlined above, the question arises whether there are any incentives for public health practitioners to explicitly address and problematize the fundamental premises of an intervention. This question poses problems for the approach in this thesis and the normative platform of emphasizing validity, accountability, and legitimacy. While the act of pointing out limitations and potential adverse effects would be seen as a virtue from a VT perspective, this is not necessarily the case for government agencies. Would it serve the intervention's interests to point out the limitations of its own expertise and objectives? Would such an effort be appreciated e.g. by the funders of the project? If the answer to these questions are no, taking on a VT perspective would in effect mean imposing a requirement on public health actors to work counter to their own interests and agenda. Rather than assuming that there is a lack of ability to address such questions within public health expertise, we may then turn our attention towards the systemic processes such as the requirements posed on project reports, the focus of evaluation and the degree to which its problem definition corresponds to the greater project of social inequity in health. The point here is that reporting requirements and subsequent evaluation have profound consequences for how practice is carried out (see Penkler et al. 2019).

Lastly, operationalizing a requirement of critical reflexivity is not without challenges. A qualitative study examining the role of public health nurses responsible for the public mother/child service in Norway, found that the requirement to stay open and reflexive actually led to insecurity among the expertise as well as parents receiving this service (Andrews 1999). The intention behind the requirement of reflexivity was to shift the power dimension of health

advice from expert authority to empowerment of the public. As a result, however, public health nurses found themselves in a squeeze between the mandate to reflexively empower parents to find their own solutions on the one hand, and users' expectations for clear expert advice on the other (p. 274). 'Critical reflexivity' is then not necessarily and automatically an unmitigated good. However, it is a necessary tool for navigating the epistemic imperfections and social conundrums permeating public health science, policy, and practice. Evaluating a public health intervention in the U.K., Mackenzie (2008) found that attempts to implement a standardized set of practice tools designed for targeting individual needs faced challenges springing from a lack of consensus among practitioners about what public health 'is' (p. 1036). Acknowledging a tension between autonomous practice and 'more managerial approaches', Mackenzie (2008) advocates for explication of the values informing standardized intervention, particularly when it comes to social inequity in health and children (p. 1035). Supporting this view, this dissertation sees the need for a space for critical reflexivity in public health practices, all the while acknowledging that this would require a systemic shift where parameters for assessing quality would include more complex social and epistemic aspects of intervention.

7.5. Concluding discussion: Strengths, weaknesses, and limitations

In this section I will summarize the findings and conclusions of this dissertation, and also account for strengths, weaknesses and limitations of the approach taken. In this dissertation, I have employed a VT approach to public health intervention as knowledge practices realizing political agendas. Accounting for the nature of the critical perspective of this dissertation, I have tentatively outlined an 'ideal' VT approach as a self-critical epistemic practice which stands in a hermeneutic relationship to its research object.

Acknowledging public health as constituting a complex web of values, practice and expertise, I have argued that there is a place for epistemic curiosity and need for critical examination of health promoting practices in order to understand how this complexity is played out in public health practices as they appear as knowledge practices realizing political agendas. The objective of this dissertation has been to open up the 'black box' of Norwegian public health science, policy, and practice so that underlying assumptions and their realization in practice may become objects of scrutiny and discussion. Rather than addressing the policy making process, it addresses the role of evidence and policy framings within specific practices in an intervention. The combination of a VT approach with analytical frameworks of frame theory and discourse analysis in close readings has made it possible to open up what appears to be closed questions and solved problems by treating knowledge practices as both process and product. Examining what 'social equity' and 'evidence basing' mean in practice I have been able to approach the question of what kind of rationality these knowledge practices produce. This is a particularly pertinent endeavor in a social welfare state context because such a social organization holds an inherent conundrum when it comes to what role the state can or should play in the population's everyday life. It has therefore been necessary to examine the validity, accountability, and legitimacy of public health science policy and practice. The three papers making up this dissertation address the complexity of public health along three axes: the realization of policy, the operationalization of scientific knowledge, and also the critical perspective itself. Skirbekk (2019) sees conceptualization as entailing a spillover from conceptual presuppositions to value questions. The tacitness of this spillover means that it may function as 'power in disguise' (Skirbekk 2019 p. 15). In this dissertation, I have examined the conceptual presuppositions of 'social inequity in health' (Paper II) and of 'evidence-based intervention' (Paper III) against the meaning that these organizing concepts gain when they are played out in practice. I have also addressed the presuppositions and functions of the concept

of healthism, thus disclosing power dimensions of not only public health knowledge practices, but also of critical scholarship (Paper I).

Seeing the intervention as operationalization of scientific knowledge, Paper III) finds that quantification of physical activity is used interchangeably in the sense of 'evidence-based practice' and as 'knowledge production', and that these to meanings realize different functions. The former entails a normative use of quantified physical activity, while the latter indicates descriptive measurements. The framing of 'evidence-based practice' in effect introduces a standard for what is to be considered 'healthy physical activity in children'. In consequence, qualitative aspects of the everyday life in kindergartens and other factors influencing health and wellbeing become subordinate to a focus on intensity levels of physical activity. In Paper II) I find that a specific notion of 'competence' in effect produces a knowledge hierarchy where individual differences and preferences are framed as problem to be solved insofar as they come into conflict with 'the public health perspective' which is defined by the values inherent to the expertise of sport pedagogues. Connecting these two findings, I argue that the framing of 'evidence-based practice' reinforces this knowledge hierarchy and establishes a one-dimensional understanding of 'health' equal to lifestyle. The link between physical activity and health is operated as a direct and causal one, and 'quality' is reduced to a matter of quantification. This issue speaks to a more general tension in public health concerning the relationship between the complex causality of health on the one hand, and requirements of measurability on the other. This tension makes it difficult to demarcate what a public health intervention can and cannot deliver. A holistic perspective on health and wellbeing is to a lesser degree operationalizable than a fragmented and reductive approach. I argue that this inescapable epistemological imperfection necessitates explicit reflection on what the nature of 'quality' of intervention and of the role of lifestyle intervention in relation to the overarching project of addressing social inequity in health.

When it comes to the intervention as realization of policy, I start from the premise that the project is a part of a greater effort of comprehensive governance of public health addressing living conditions in the area of Grorud Valley. Observing that it would be possible to label the intervention as expressions of strategies of 'neoliberal governmentality', as well as 'hard paternalism' depending on the ideological starting point of analysis, I make the case for exploring other kinds of analytic categories. Drawing on the concept of healthism as it is developed in Paper I) in this dissertation, I problematize the potential of lifestyle intervention to subjugate other kinds of rationalities which find their expression in individual values and preferences. Of particular interest in the context of this dissertation is the social meaning of health behavior. The concept of healthism opens for a line of argument where the rationality provided by the sports pedagogues managing the intervention can be said to construct the act of not engaging actively in preventive health behavior as an expression of social deviance. The quest for 'health' may thus come to legitimize practices in and of itself, to the point where the actual health benefit becomes subordinate to the symbolic value of health that these practices represent. I observe a tension within the comprehensive framework of the intervention in that the focus on social determinants is, in effect, realized through an approach of actively targeting individuals. This targeting is partly justified by the classification of the population of Grorud Valley as being at risk due to socioeconomic status. The potential value conflicts illuminated by the concept of healthism concept are of particular importance to the intervention studied in this thesis for two reasons: a) the population of Grorud Valley is culturally and ethnically diverse, and may have a range of different ways of understanding the social meaning of health b) the classification of appropriate 'health behavior' has consequences for the pedagogical practice in kindergartens and therefore for the cultivation of children as social beings and citizens.

Drawing on Niewohner et al.'s (2011) concept of 'preventive assemblages', I note that the problems opened up by the healthism concept need not be understood in terms of a moral lapse on the part of the project managers of the intervention. Rather, the notion of preventive assemblages draws attention to systemic conditions that invite a certain set of solutions. Lifestyle modification as a somewhat simplified response to complex issues of social inequity in health can thus be framed in terms of the requirements of measurability; political mandate; the emphasis of evidence-basing; and parameters of evaluation. The normative conclusion of my findings is that, in order for intervention to be accountable, and its validity and legitimacy assessable, it would be necessary to make a space for critical and reflexive inquiry and articulation of what kind of social problem it is that the intervention solves, and what kind of potential adverse effects it may have, in project reports.

This normative conclusion is, however, not unproblematic. I have stated that public health is riddled with discursive tensions and epistemic imperfections. Acknowledging that these are not solvable entities, I have argued that these tensions and imperfections necessitate a space for critical reflexivity in intervention and evaluation. The position of critical scholarship to contribute to the realization of this plea is, however, not a straightforward one. Particularly issues of validity requirements complicate the picture. The mandate of a philosophical approach to generate questions rather than solutions may come into conflict with the mandate of public health practice to solve problems. Hence, insights from critical scholarship are not necessarily transferrable to modes of practice. Furthermore, a requirement of openness and critical reflexivity may come into conflict with the public's expectations towards public health expertise. Lastly, critical reflexivity in the sense of pointing out limitations and potential adverse effects of a publicly funded project may have a counterproductive effect on the interest of public health actors so long as it is not acknowledged as a quality measure by government agencies. Critical reflexivity, then, is not a 'silver bullet' designed to solve problems effectively

and accurately. It is an imperfect, but necessary tool for navigating the epistemic imperfections and social conundrums permeating public health science, policy and practice.

The criticism posed in this dissertation may come off as somewhat idealized in its focus on validity, accountability, and legitimacy. This is a weakness of the chosen approach, but it is also a strength. While I do not assess the intervention against an external framework per se, I arguably impose an external requirement of reflexivity. On the one hand, I could argue that this requirement is already present in policy outlines through the problem framings emphasizing complexity in a reflexive manner. On the other hand, it is quite possible to argue that pointing out weaknesses and limitations could have a counterproductive effect on an intervention e.g. when it comes to funding

The strategy of close readings, or document analysis can be criticized for operating rather on the surface of the practices examined in this dissertation. It is a weakness to my approach that it is not able to address the inner workings of the examined practices. Therefore, it is important to note that it has not been an objective in this work to assess the quality of the intervention in terms of its practical components as they have been carried out in individual kindergartens. The analyses in the three papers do not profess to assess the quality of the lifestyle interventions *per se*, but to assess the relationship between the political and scientific rationales that inform and justify this type of intervention, and their realization in practice. Notwithstanding, the possibility that my analysis could have been improved by ethnographic studies and/or a closer engagement with the managers and participants of this intervention cannot be entirely dismissed. In spite of this weakness, I would argue that the somewhat superficial perspective provided by the material examined in this dissertation, can be justified by the nature and use of these documents as they operate in public health systems of governance as detached reference documents.

Another weakness of my approach is that the focus on specificity and the locally anchored VT perspective can be said to constitute a rather myopic perspective which limits the potential for generalizable findings. Conversely, studying specific cases and avoiding undue generalization can be seen as a way of preserving the legitimacy of VT research (Skirbekk 2004 p. 8). A consequence of this, is that the answers generated by this kind of research perhaps to a lesser degree open for generalizable truth claims. On the other hand, this limitation may increase the potential relevance of these conclusions. I claimed in the introduction to this chapter that the approach taken in this dissertation lays the ground for a contextualized expansion of a critically informed debate about public health as a complex normative enterprise. Whether and how the arguments presented in this dissertation are relevant and valid for public health practice is, however, not a matter of scientific certainty. I can argue for this dissertation's relevance to public health practices, but ultimately, it is up to public health expertise to ascertain this relevance.

7.6. Future perspectives

In order to make the scope of this dissertation manageable, I have narrowed down the body of literature to be examined in close readings. As a result, more than a few trails of thought have been left along the way. In the material that I have chosen not to engage with, two sets of literature stand out which could have added to this the document analysis in this dissertation. One is the body of literature cited in the project reports that does not classify as political strategies, nor as scientific evidence, but rather as 'grey literature' (see Auger 1975). These documents are cited as part of the knowledge base for the intervention but are not explicitly used to anchor the intervention epistemologically/methodologically or politically/strategically. Examples of this type of literature – which is probably quite idiosyncratic to the

Norwegian/Scandinavian context – include a pamphlet developed by the Norwegian Directorate for Children, Youth and Family Affairs designed for parental guidance for physical activity in children (Mjaavatn and Fjørtoft 2008), and the national strategy for children and adolescent's health and environment (Norwegian Ministries 2007). The body of literature that these two examples represent have vastly different objectives and normative anchor points. While the latter is particularly focused on involving children in shared decision making, the former provides direct guidelines for how parents should integrate physical activity in the family's everyday lives, as a part of a broader project of parental guidance provided by the state. Taken together, this grey literature provides what I would call a 'cluster of contradictions' when it comes to their problem definitions and normative premises. Closer examination could be worthwhile. Second, the discourse surrounding this intervention and its role within the overarching urban development project, could also include media representation. Studying the media representation of this project could illuminate the societal framing of these types of interventions.

A weakness of discourse- and document analysis is that it is not able to address the motives and intentions behind the analyzed texts. In order to get further in the understanding of public health discourses, qualitative interviews with those producing these documents would be helpful for a) unravelling the problem understandings and negotiations that lie behind the end result in terms of formulations, priorities and framings and b) getting a clearer idea of what kinds of epistemic interests have motivated funding, project design and practice. A second limitation of the approach taken in this dissertation, is that it does not gain access to the perceptions of those targeted by the intervention. In future research, ethnographic studies could be able to provide a clearer image of the experience of staff, parents and children, particularly when it comes to questions concerning how the intervention has been perceived as beneficial

and whether values, preferences and priorities have been or could be negotiated within such an intervention.

I have noted that shifting problem definitions make it difficult to evaluate the intervention, and that present evaluations do not provide insights into what kind of problem the intervention responds successfully to. The question of quality assessment could be addressed from the framework of Post Normal Science (PNS). A central feature of PNS as quality assessment, is a participant-oriented strategy where all stakeholders are invited to evaluate an issue, not only those who represent specific forms of professional expertise of political authority. Within such an approach, examining the relationship between external and internal quality could be beneficial (Funtowicz and Ravetz 1992). Such an approach could potentially bring to the table both assessments and solutions that this dissertation has not been able to provide.

References

Ahlmark, N., Whyte, S., Harting, J., & Tjørnhøj-Thomsen, T. (2016). Recognition as care: a longitudinal study of Arabic immigrants' experiences of diabetes training in Denmark. *Critical Public Health*, *26*(2), 118-132. https://doi.org/10.1080/09581596.2014.953913

Alexander, S., Frohlich, K., & Fusco, C. (2014). Playing for health? Revisiting health promotion to examine the emerging public health position on children's play. *Health Promotion International*, *29*(1), 155-164. https://doi.org/10.1093/heapro/das042

Alvaro, C., Jackson, L., Kirk, S., McHugh, T., Hughes, J., Chircop, A., & Lyons, R. (2011). Moving Canadian governmental policies beyond a focus on individual lifestyle: some insights from complexity and critical theories. *Health Promotion International*, *26*(1), 91-99. https://doi.org/10.1093/heapro/daq052

Andrews, D., Silk, M., & Thorpe, H. (2016). *Handbook of physical cultural studies*. Routledge.

Andrews, T. (1999). Pulled between contradictory expectations: Norwegian mother/child service and the 'new' public health discourse. *Critical Public Health*, *9*(4), 269-285. https://doi.org/10.1080/09581599908402940

Armstrong, D. (1995). The rise of surveillance medicine. *Sociology Of Health And Illness*, *17*(3), 393-404. https://doi.org/10.1111/1467-9566.ep10933329

Armstrong, D. (2009). Origins of the Problem of Health-related Behaviours. *Social Studies Of Science*, *39*(6), 909-926. https://doi.org/10.1177/0306312709104258

Armstrong, N., & Murphy, E. (2012). Conceptualizing resistance. *Health: An Interdisciplinary Journal For The Social Study Of Health, Illness And Medicine*, *16*(3), 314-326. https://doi.org/10.1177/1363459311416832

Auger, C. (1975). *Use of reports literature*. Butterworths.

Augestad, P. (2005). Resept for et sunnere Norge Et foucaultsk blikk på norsk helsepolitikk. [Prescriptions for a healthier Norway – A Foucauldian take on Norwegian public health policy] *Sosiologi i Dag*, *35*(2), 33-52.

Ayo, N. (2012). Understanding health promotion in a neoliberal climate and the making of health conscious citizens. *Critical Public Health*, *22*(1), 99-105. https://doi.org/10.1080/09581596.2010.520692

Bacon, L. (2010). *Health at every size*. BenBella Books.

Barnes, B., Bloor, D., & Henry, J. (1996). *Scientific knowledge: A Sociological Analysis*. University of Chicago Press.

Bateson, G. (1955). A theory of play and fantasy; a report on theoretical aspects of the project of study of the role of the paradoxes of abstraction in communication. *Psychiatric Research Reports*, *2*, 39-51. https://doi.org/PMID: 13297882

Belasco, W., Bentley, A., Biltekoff, C., Williams-Forson, P., & de la Peña, C. (2011). The Frontiers of Food Studies. *Food, Culture & Society*, *14*(3), 301-314. https://doi.org/10.1080/15528014.2011.11422589

Berg, J., Harting, J., & Stronks, K. (2019). Individualisation in public health: reflections from life narratives in a disadvantaged neighbourhood. *Critical Public Health*, 1-12. https://doi.org/10.1080/09581596.2019.1680803

Berg, J., Nestle, M., & Bentley, A. (2003). Food studies. In *The Scribner encyclopedia of food and culture*. Charles Scribner and Sons.

Biltekoff, C. (2012). Critical Nutrition. In J. Pilcher, *The Oxford Handbook of Food History* (pp. 172-190). Oxford University Press.

Biltekoff, C. (2013). *Eating Right in America*. Duke University Press.

Biltekoff, C., Mudry, J., Kimura, A., Landecker, H., & Guthman, J. (2014). Interrogating Moral and Quantification Discourses in Nutritional Knowledge. *Gastronomica*, *14*(3), 17-26. https://doi.org/10.1525/gfc.2014.14.3.17

Bordo, S. (1993). *Unbearable weight*. University of California Press.

Borovoy, A., & Roberto, C. (2015). Japanese and American public health approaches to preventing population weight gain: A role for paternalism?. *Social Science & Medicine*, *143*, 62-70. https://doi.org/10.1016/j.socscimed.2015.08.018

Braathen, M. (2007). *Levekår på vandring: velstand og marginalisering i Oslo [Living conditions in change: prosperity and marginalisation in Oslo]*. Oslo: Forskningsstiftelsen FAFO [FAFO Institute].

Bråthen, B., Haakestad, H., & Telle, K. (2014). *Gratis kjernetid i barnehager. Sluttrapport. [Free Core Time in kindergartens. Final Report]*. Oslo: FAFO.

Britnell, M., Adkins, L., & Dever, M. (2015). *In search of the perfect health system*. Palgrave Macmillan.

Brown, T., & Bell, M. (2008). Imperial or postcolonial governance? Dissecting the genealogy of a global public health strategy. *Social Science & Medicine*, *67*(10), 1571-1579. https://doi.org/10.1016/j.socscimed.2008.07.027

Caldwell, M. (2014). Epilogue: Anthropological reflections on critical nutrition. *Gastronomica*, *14*(3), 67-69. https://doi.org/10.1525/gfc.2014.14.3.67

Cameron, E., Mathers, J., & Parry, J. (2008). 'Health and well-being': questioning the use of health concepts in public health policy and practice. *Critical Public Health*, *18*(2), 225-232. https://doi.org/10.1080/09581590601091604

Campos, P. (2004). *The obesity myth*. Gotham Books.

Campos, P. (2011). Does fat kill? A critique of the epidemiological evidence. In E. Rich, L. Monaghan & L. Aphramor, *Debating Obesity: Critical Perspectives*. Palgrave Macmillan.

Canguilhem, G. (1989/1966). *The normal and the pathological*. Zone Books.

Caroli, M., Malecka-Tendera, E., Epifani, S., Rollo, R., Sansolios, S., Matusik, P., & Mikkelsen, B. (2011). Physical activity and play in kindergarten age children. *International Journal Of Pediatric Obesity*, *6*(S2), 47-53. https://doi.org/10.3109/17477166.2011.613671

Carter, E. (2015). Making the Blue Zones: Neoliberalism and nudges in public health promotion. *Social Science & Medicine*, *133*, 374-382. https://doi.org/10.1016/j.socscimed.2015.01.019

Charmaz, K. (2006). *Constructing grounded theory. A practical guide through qualitative analysis*. Sage.

Cliff, D., Reilly, J., & Okely, A. (2009). Methodological considerations in using accelerometers to assess habitual physical activity in children aged 0–5 years. *Journal Of Science And Medicine In Sport*, *12*(5), 557-567. https://doi.org/10.1016/j.jsams.2008.10.008

Collaboration committee for Grorud Valley [Samarbeidsutvalget for Groruddalen]. (2017). *Groruddalssatsingen 2007-2016. Sluttrapport. [the Grorud Valley Integrated Urban*

Regeneration Project 2007-2016. Final report.]. Oslo: Collaboration committee for Grorud Valley [Samarbeidsutvalget for Groruddalen].

Coreil, J., Levin, J., & Jaco, E. (1985). Life style—an emergent concept in the sociomedical sciences. *Culture, Medicine And Psychiatry*, *9*(4), 423-437. https://doi.org/10.1007/BF00049232

Coveney, J. (2002). *Food, morals, and meaning: The pleasure and anxiety of eating*. Routledge.

Crawford, R. (1980). Healthism and the Medicalization of Everyday Life. *International Journal Of Health Services*, *10*(3), 365-388. https://doi.org/10.2190/3h2h-3xjn-3kay-g9ny

Crawford, R. (1994). The boundaries of the self and the unhealthy other: Reflections on health, culture and AIDS. *Social Science & Medicine*, *38*(10), 1347-1365. https://doi.org/10.1016/0277-9536(94)90273-9

Crawford, R. (2006). Health as a meaningful social practice. *Health: An Interdisciplinary Journal For The Social Study Of Health, Illness And Medicine*, *10*(4), 401-420. https://doi.org/10.1177/1363459306067310

Daneski, K., Higgs, P., & Morgan, M. (2010). From gluttony to obesity: moral discourses on apoplexy and stroke. *Sociology Of Health & Illness*, *32*(5), 730-744. https://doi.org/10.1111/j.1467-9566.2010.01247.x

Dean, M. (1999). *Governmentality: Foucault, power and social structure*. Sage.

Donati, P. (1992). Political discourse analysis. In M. Diani & R. Eyerman, *Studying collective action* (pp. 136-167). SAGE Publications Limited.

Dønnestad, J., & Strandmyr, A. (2014). *Folkehelseprosjekt i barnehager [The Public Health Project in Kindergartens]*. Oslo: Groruddalssatsingen, Oslo kommune.

Dønnestad, J., Helland Kleppe, T., & Strandmyr, A. (2015). *Oppfølging av folkehelseprosjekt i barnehager [Follow-up of The Public Health Project in Kindergartens]*. Oslo: Groruddalssatsingen, Oslo kommune,.

Ekne Ruud, M., Holm-Hansen, J., Nenseth, V., & Tønnesen, A. (2011). *Midtveisevaluering av Groruddalssatsingen [Mid-term Evaluation of the Grorud Valley Integrated Urban Regeneration Project]*. Oslo: joint report NIBR/TØI Norwegian Institute for Urban and Regional Research and The Institute of Transport Economics.

Engebretsen, E., & Heggen, K. (2012). *Makt på nye måter [New Forms of Power]*. Universitetsforlaget.

Engebretsen, E., Sandset, T., & Ødemark, J. (2017). Expanding the knowledge translation metaphor. *Health Research Policy And Systems*, *15*(1). https://doi.org/10.1186/s12961-017-0184-x

Erben, R., Franzkowiak, P., & Wenzel, E. (1992). Assessment of the outcomes of health intervention. *Social Science & Medicine*, *35*(4), 359-365. https://doi.org/10.1016/0277-9536(92)90328-n

Fadyl, J., Nicholls, D., & McPherson, K. (2012). Interrogating discourse: The application of Foucault's methodological discussion to specific inquiry. *Health: An Interdisciplinary Journal For The Social Study Of Health, Illness And Medicine*, *17*(5), 478-494. https://doi.org/10.1177/1363459312464073

Fairclough, N. (1995). *Media discourse*. Edward Arnold.

Felski, R. (2015). *The limits of critique*. University of Chicago Press.

Feyerabend, P. (1975). *Against method: Outline of an anarchistic theory of knowledge*. Verso.

Fisher, K. (1997). Locating Frames in the Discursive Universe. *Sociological Research Online*, *2*(3), 88-111. https://doi.org/10.5153/sro.78

Fjelland, R. (1995). *Vitenskapsteori*. Universitetsforlaget.

Fleck, L. (1935). *Genesis and development of a scientific fact*. University of Chicago Press.

Fosse, E. (2011). Different Welfare States—Different Policies? An Analysis of the Substance of National Health Promotion Policies in Three European Countries. *International Journal Of Health Services*, *41*(2), 255-272. https://doi.org/10.2190/hs.41.2.e

Fosse, E., & Helgesen, M. (2017). Advocating for Health Promotion Policy in Norway: The Role of the County Municipalities. *Societies*, *7*(2), 5. https://doi.org/10.3390/soc7020005

Foucault, M. (1972/1969). *The Archaeology of Knowledge*. Harper and Row.

Fugelli, P. (2006). The Zero-vision: Potential side effects of communicating health perfection and zero risk. *Patient Education And Counseling*, *60*(3), 267-271. https://doi.org/10.1016/j.pec.2005.11.002

Fullagar, S. (2002). Governing the healthy body: discourses of leisure and lifestyle within Australian health policy. *Health:*, *6*(1), 69-84. https://doi.org/10.1177/1363459302006001445

Fullagar, S. (2019). A physical cultural studies perspective on physical (in) activity and health inequalities: the biopolitics of body practices and embodied movement. *Revista Tempos E Espaços Em Educação*, *12*(28), 63-76. https://doi.org/10.20952/revtee.v12i28.10161

Funtowicz, S., & Ravetz, J. (1990). *Uncertainty and quality in science for policy*. Kluwer.

Funtowicz, S., & Ravetz, J. (1991). A New Scientific Methodology for Global Environmental Issues. In R. Costanza, *Ecological Economics: The Science and Management of Sustainability*. Colombia University Press.

Funtowicz, S., & Ravetz, J. (1992). The good, the true and the post-modern. *Futures*, *24*(10), 963-976. https://doi.org/10.1016/0016-3287(92)90131-x

Funtowicz, S., & Ravetz, J. (1993). Science for the post-normal age. *Futures*, *25*(7), 739-755. https://doi.org/10.1016/0016-3287(93)90022-l

Funtowicz, S., & Ravetz, J. (2001). Peer Review and Quality Control. In M. Krygier, *International Encyclopaedia of the Social and Behavioural Sciences*. Elsevier.

Gadamer, H. (1976). *Reason in the age of science*. MIT Press.

Gakidou, E., Afshin, A., Abajobir, A., Abate, K., Abbafati, C., & Abbas, K. et al. (2017). Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet*, *390*(10100), 1345-1422. https://doi.org/10.1016/S0140 6736(17)32366-8

Gal, S. (2015). Politics of Translation. *Annual Review Of Anthropology*, *44*(1), 225-240. https://doi.org/10.1146/annurev-anthro-102214-013806

Gard, M., & Wright, J. (2005). *The obesity epidemic*. Routledge.

Gibbons, M., Trow, M., Scott, P., Schwartzman, S., Nowotny, H., & Limoges, C. (1994). *The new production of knowledge*. SAGE Publications Ltd.

Gibson, B. (2003). Framing and taming "wicked" problems. In V. Lin & B. Gibson, *Evidence-based health policy,* (pp. 298–310).

Gluckman, P., & Hanson, M. (2012). *Fat, Fate, and Disease: Why exercise and diet are not enough*. OUP Oxford.

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Harper & Row.

Greenhalgh, T., & Russell, J. (2009). Evidence-Based Policymaking: A Critique. *Perspectives In Biology And Medicine*, *52*(2), 304-318. https://doi.org/10.1353/pbm.0.0085

Greenhalgh, T., & Wieringa, S. (2011). Is it time to drop the 'knowledge translation' metaphor? A critical literature review. *Journal Of The Royal Society Of Medicine*, *104*(12), 501-509. https://doi.org/10.1258/jrsm.2011.110285

Greve, B. (2007). What Characterise the Nordic Welfare State Model. *Journal Of Social Sciences*, *3*(2), 43-51. https://doi.org/10.3844/jssp.2007.43.51

Guillory, J. (2002). The Sokal Affair and the History of Criticism. *Critical Inquiry*, *28*(2), 470-508. https://doi.org/10.1086/449049

Guthman, J. (2011). *Weighing in*. University of California Press.

Guthman, J. (2013). Fatuous measures: the artifactual construction of the obesity epidemic. *Critical Public Health*, *23*(3), 263-273. https://doi.org/10.1080/09581596.2013.766670

Guthman, J. (2014). Introducing Critical Nutrition. *Gastronomica*, *14*(3), 1-4. https://doi.org/10.1525/gfc.2014.14.3.1

Haas, P. (1992). Introduction: epistemic communities and international policy coordination. *International Organization*, *46*(1), 1-35. https://doi.org/10.1017/s0020818300001442

Hacking, J. (1999). *The social construction of what*. Harvard University Press.

Hagen, S., Øvergård, K., Helgesen, M., Fosse, E., & Torp, S. (2018). Health Promotion at Local Level in Norway: The Use of Public Health Coordinators and Health Overviews to Promote Fair Distribution Among Social Groups. *International Journal Of Health Policy And Management*, *7*(9), 807-817. https://doi.org/10.15171/ijhpm.2018.22

Haraway, D. (1984). Teddy Bear Patriarchy: Taxidermy in the Garden of Eden, New York City, 1908-1936. *Social Text*, (11), 20-64. https://doi.org/10.2307/466593

Haraway, D. (1988). Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies*, *14*(3), 575. https://doi.org/10.2307/3178066

Harding, S. (1986). *The science question in feminism*. Cornell University Press.

Harding, S. (1991). *Whose Science? Whose Knowledge?*. Cornell University Press.

Haug, K., & Storø, J. (2013). Kindergarten — a Universal Right for Children in Norway. *International Journal Of Child Care And Education Policy*, *7*(2), 1-13. https://doi.org/10.1007/2288-6729-7-2-1

Hayes-Conroy, A., & Hayes-Conroy, J. (2013). *Doing Nutrition Differently: Critical Approaches to Diet and Dietary Intervention (Critical Food Studies)*. Ashgate Publishing Group.

Hayes-Conroy, J., Hite, A., Klein, K., Biltekoff, C., & Kimura, A. (2014). Doing Nutrition Differently. *Gastronomica*, *14*(3), 56-66. https://doi.org/10.1525/gfc.2014.14.3.56

Hervik, S., & Thurston, M. (2016). 'It's not the government's responsibility to get me out running 10 km four times a week' - Norwegian men's understandings of responsibility for health. *Critical Public Health*, *26*(3), 333-342. https://doi.org/10.1080/09581596.2015.1096914

Holman, D., Lynch, R., & Reeves, A. (2018). How do health behaviour interventions take account of social context? A literature trend and co-citation analysis. *Health: An Interdisciplinary Journal For The Social Study Of Health, Illness And Medicine*, *22*(4), 389-410. https://doi.org/10.1177/1363459317695630

Holst, C. (2015). «Deltakar og tilskodar» ["Participant and observer"]. *Sosiologen*. Retrieved 8 September 2020, from https://sosiologen.no/hva-er-sosiologi/sosiologisk-kanon/deltakar-og-tilskodar/.

Illich, I. (1975). *Medical Nemesis*. Calder & Boyars.

Jasanoff, P., Markle, D., Peterson, J., & Pinch, D. (2001). *Handbook of Science and Technology Studies*. SAGE Publications.

Jasanoff, S. (2003). Technologies of Humility: Citizen Participation in Governing Science. *Minerva*, *41*(3), 223-244. https://doi.org/10.1023/a:1025557512320

Jensen, T., & Kjærnes, U. (1997). Designing the good life: nutrition and social democracy in Norway. In P. Sulkunen, J. Holmwood, H. Radner, G. Schulze & J. Campling, *Constructing the new consumer society* (pp. 218-233). Palgrave Macmillan.

Johns, D., & Tinning, R. (2006). Risk Reduction: Recontexualizing Health As a Physical Education Curriculum. *Quest*, *58*(4), 395-409. https://doi.org/10.1080/00336297.2006.10491890

Jørgensen, M., & Phillips, L. (2002). *Discourse analysis as theory and method*. SAGE Publications.

Jutel, A. (2001). Does Size Really Matter? Weight and Values in Public Health. *Perspectives In Biology And Medicine*, *44*(2), 283-296. https://doi.org/10.1353/pbm.2001.0027

Kaiser, M. (2000). *Hva er vitenskap?*. Universitetsforlaget.

Karrebæk, M. (2013). Lasagna for Breakfast. *Food, Culture & Society*, *16*(1), 85-106. https://doi.org/10.2752/175174413x13500468045443

Kimura, A., Biltekoff, C., Mudry, J., & Hayes-Conroy, J. (2014). Nutrition as a Project. *Gastronomica*, *14*(3), 34-45. https://doi.org/10.1525/gfc.2014.14.3.34

Kleppe, L., & Engebretsen, E. (2010). Professional responsibility and human rights at asylum reception centres. *Nordic Journal Of Human Rights*, *26*, 422-437.

Knutsen, I., & Foss, C. (2011). Caught between conduct and free choice - a field study of an empowering programme in lifestyle change for obese patients. *Scandinavian Journal Of Caring Sciences*, *25*(1), 126-133. https://doi.org/10.1111/j.1471-6712.2010.00801.x

Korsvold, T. (2005). *For alle barn!*. Abstrakt.

Kristensen, D., Lim, M., & Askegaard, S. (2016). Healthism in Denmark: State, market, and the search for a "Moral Compass". *Health: An Interdisciplinary Journal For The Social Study Of Health, Illness And Medicine*, *20*(5), 485-504. https://doi.org/10.1177/1363459316638541

Krogh, T. (1991). *Fra Frankfurt til Hollywood [From Frankfurt to Hollywood]*. Aschehoug kursiv.

Kuhn, T. (2012/1963). *The structure of scientific revolutions*. The University of Chicago Press.

Kuhn, T., & Hacking, I. (2012). *The structure of scientific revolutions*. University of Chicago Press.

Kumar, B., Grøtvedt, L., Meyer, H., Søgaaard, A., & Strand, B. (2008). *The Oslo immigrant health profile*. Oslo: Norwegian Institute of Public Health. Retrieved from https://www.fhi.no/globalassets/dokumenterfiler/rapporter/2009-og-eldre/rapport-20087.the-oslo-immigrant-health-profile-pdf.pdf

Laclau, E., & Mouffe, C. (2001/1985). *Hegemony et socialist strategy*. Verso.

Larsen, L. (2011). The Leap of Faith from Disease Treatment to Lifestyle Prevention: The Genealogy of a Policy Idea. *Journal Of Health Politics, Policy And Law*, *37*(2), 227-252. https://doi.org/10.1215/03616878-1538611

Latour, B. (2004). Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern. *Critical Inquiry*, *30*(2), 225. https://doi.org/10.2307/1344358

LeBesco, K. (2004). *Revolting bodies? : The Struggle to Redefine Fat Identity*. University of Massachusetts Press.

Loga, J. (2003). Godhetsdiskursen [The discourse of 'goodness']. In K. Berge, S. Meyer & T. Trippestad, *Maktens tekster [The texts of power]*. Gyldendal Norsk Forlag.

Lomas, J. (1998). Social capital and health: Implications for public health and epidemiology. *Social Science & Medicine*, *47*(9), 1181-1188. https://doi.org/10.1016/s0277-9536(98)00190-7

Lupton, D. (1995). *The imperative of health: Public health and the regulated body*. Taylor & Francis.

Mackenzie, M. (2008). 'Doing' public health and 'making' public health practitioners: Putting policy into practice in 'Starting Well'. *Social Science & Medicine*, *67*(6), 1028-1037. https://doi.org/10.1016/j.socscimed.2008.05.021

Malterud, K., & Tonstad, S. (2009). Preventing obesity: Challenges and pitfalls for health promotion. *Patient Education And Counseling*, *76*(2), 254-259. https://doi.org/10.1016/j.pec.2008.12.012

Malterud, K., & Ulriksen, K. (2010). "Norwegians fear fatness more than anything else"—A qualitative study of normative newspaper messages on obesity and health. *Patient Education And Counseling*, *81*(1), 47-52. https://doi.org/10.1016/j.pec.2009.10.022

Mansfield, L., & Rich, E. (2013). Public health pedagogy, border crossings and physical activity at every size. *Critical Public Health*, *23*(3), 356-370. https://doi.org/10.1080/09581596.2013.783685

Mayes, C. (2014). Governing through choice: Food labels and the confluence of food industry and public health discourse to create 'healthy consumers'. *Social Theory & Health*, *12*(4), 376-395. https://doi.org/10.1057/sth.2014.12

Mayes, C. (2015). *The biopolitics of lifestyle*. Routledge.

Mayes, C., & Thompson, D. (2014). Is Nutritional Advocacy Morally Indigestible? A Critical Analysis of the Scientific and Ethical Implications of 'Healthy' Food Choice Discourse in Liberal Societies. *Public Health Ethics*, *7*(2), 158-169. https://doi.org/10.1093/phe/phu013

Mayes, C., & Thompson, D. (2015). What Should We Eat? Biopolitics, Ethics, and Nutritional Scientism. *Journal Of Bioethical Inquiry*, *12*(4), 587-599. https://doi.org/10.1007/s11673-015-9670-4

McCormack, J., & Burrows, L. (2015). The Burden of Brown Bodies: teachings about Pasifika within public health obesity research in Aotearoa/New Zealand. *Cultural Studies ↔ Critical Methodologies*, *15*(5), 371-378. https://doi.org/10.1177/1532708615611718

Merton, R. (1973). *The sociology of science: Theoretical and empirical investigations*. The University of Chicago Press.

Ministry of Education [Kunnskapsdepartementet]. (2012). *Stortingsmelding 24 (2012-2013) Framtidens barnehage [White paper 24 (2012-2013) Kindergartens of the future]*. Oslo.

Ministry of Education and Research [Kunnskapsdepartementet]. The Right to Kindergarten (2008).

Ministry of Health and Care Services [Helse- og omsorgsdepartementet]. Folkehelseloven [The Public Health Act] (2011).

Ministry of Health and Care Services [Helsedepartementet]. (2014). *Stortingsmelding nr. 19 Mestring og muligheter (2014-2015) [White paper no. 19 Coping and Possibilities 2014-2015)]*. Oslo: Ministry of Health and Care Services [Helsedepartementet].

Ministry of Social Affairs [Helsedepartementet]. (2002). *Stortingsmelding 16. (2002-2003) Resept for et sunnere Norge. [see also: abbreviated English version White paper No. 16.*

Prescriptions for a Healthier Norway – A Broad Policy for Public Health" (2002-2003)]. Oslo: Ministry of Social Affairs [Helsedepartementet].

Mjaavatn, P., & Fjørtoft, I. (2008). *Barn og fysisk aktivitet – med hovedvekt på aldersgruppa 0-16 år. [Children and physical activity – with a focus on the age group from 0 to 16 years]*. Oslo: Bufdir (The Norwegian Directorate for Children, Youth and Family Affairs) [Bufdir: Barne-, ungdoms- og familiedirektoratet].

Monaghan, L. (2012). Extending the obesity debate, repudiating misrecognition: Politicising fatness and health (practice). *Social Theory & Health*, *11*(1), 81-105. https://doi.org/10.1057/sth.2012.10

Monaghan, L., Colls, R., & Evans, B. (2013). *Obesity discourse and fat politics: Research, critique and interventions*. Routledge.

Mudry, J. (2009). *Measured meals: Nutrition in America*. Suny Press.

Mudry, J., Hayes-Conroy, J., Chen, N., & Kimura, A. (2014). Other Ways of Knowing Food. *Gastronomica*, *14*(3), 27-33. https://doi.org/10.1525/gfc.2014.14.3.27

Nadim, M. (2008). *Levekår i Groruddalen [Living conditions in Grorud Valley] No. 2008: 27*. Oslo: FAFO.

NAVF (Norges Almenvitenskapelige Forskningsråd). (1976). *Vitenskapsteoretiske fag. Rapport fra en konferanse om de vitenskapsteoretiske fags stilling i Norge*. Oslo. Retrieved from https://www.nb.no/items/633420b00afd937348c608677e20a3be

Newdick, C. (2017). Health equality, social justice and the poverty of autonomy. *Health Economics, Policy And Law*, *12*(4), 411-433. https://doi.org/10.1017/s1744133117000093

Niewöhner, J., Döring, M., Kontopodis, M., Madarász, J., & Heintze, C. (2011). Cardiovascular Disease and Obesity Prevention in Germany: An Investigation into a Heterogeneous Engineering Project. *Science, Technology, & Human Values*, *36*(5), 723-751. https://doi.org/10.1177/0162243910392797

Nilsen, H. (2015). Fitness for which purpose? A quality assessment of a Norwegian public health intervention in nursery schools. In D. Dumitras, I. Jitea & A. Mugurel, *Know your Food – Food Ethics and Innovation*. EurSafe 2015.

Norwegian Directory of Health [Helsedirektoratet]. (2014). *Kunnskapsgrunnlag fysisk aktivitet – Innspill til departementets videre arbeid for økt fysisk aktivitet og redusert inaktivitet i befolkningen [Physical activity knowledge base - contribution to the ministry's further work for increased physical activity and increased sedentary behavior in the population]*. Oslo: Norwegian Directory of Health [Helsedirektoratet].

Norwegian Ministries [Departementene]. (2007). *Barnas framtid. Nasjonal strategi for barn og unges miljø og helse 2007-2016. [Children's future. National strategy for children and adolescents environment and health]*. Oslo: Norwegian Ministries [Departementene].

Oslo Municipality and GVIURP [Oslo kommune and Groruddalssatsingen]. (2018). *[Health promoting practice in kindergartens and schools in Grorud Valley]*. Oslo: Oslo Municipality and GVIURP [Oslo kommune and Groruddalssatsingen].

Oslo Municipality and the Ministries [Oslo kommune og Departementene]. (2016). *Programbeskrivelse for Groruddalssatsingen 2017-2026 [Program description for the Grorud Valley Integrated Urban Regeneration Project 2017-2026]*. Oslo: Oslo Municipality and the Ministries [Oslo kommune og Departementene].

Oslo Municipality, District Grorud [Oslo kommune, Bydel Grorud]. (2011). *Plandokument, Folkehelsestrategi for Bydel Grorud 2011 [Planning document, Public health strategy for District Grorud 2011]*. Oslo.

Øversveen, E., Rydland, H., Bambra, C., & Eikemo, T. (2017). Rethinking the relationship between socio-economic status and health: Making the case for sociological theory in health inequality research. *Scandinavian Journal Of Public Health*, *45*(2), 103-112. https://doi.org/10.1177/1403494816686711

Penkler, M., Felder, K., & Felt, U. (2019). Challenging Diversity: Steering Effects of Buzzwords in Projectified Health Care. *Science, Technology, & Human Values*, *45*(1), 138-163. https://doi.org/10.1177/0162243919841694

Petersen, A., & Lupton, D. (1996). *The new public health: Discourses, knowledges, strategies*. Sage.

Popper, K. (1963). *Conjectures and refutations: The growth of scientific knowledge*. Harper and Row.

Pluckrose, H., & Lindsay, J. *Cynical theories: How Activist Scholarship Made Everything about Race, Gender, and Identity—and Why This Harms Everybody*. Pitchstone Publishing.

Proba Research. (2016). *Sluttevalueringen av Groruddalssatsingen PO 4: Oppvekst, utdanning, levekår, kulturaktiviteter og inkludering Delevaluering. [Final evaluation of the Grorud Valley Integrated Urban Regeneration Project PO 4 "Children and adolescents, schools, living conditions, cultural activity and inclusion]*. Oslo.

Puig de la Bellacasa, M. (2011). Matters of care in technoscience: Assembling neglected things. *Social Studies Of Science*, *41*(1), 85-106. https://doi.org/10.1177/0306312710380301

Raphael, D. (2014). Challenges to promoting health in the modern welfare state: The case of the Nordic nations. *Scandinavian Journal Of Public Health*, *42*(1), 7-17. https://doi.org/10.1177/1403494813506522

Reid, B. (2017). Avoiding philosophy as a trump-card in sociological writing. A study from the discourse of evidence-based healthcare. *Social Theory & Health*, *15*(4), 369-387. https://doi.org/10.1057/s41285-017-0033-6

Rein, M., & Schön, D. (1977). Problem setting in policy research. In C. Weiss, *Using social research in public policy making*. Lexington Books.

Roberts, J., & Leonard, E. (2015). What is (and Isn't) Healthism. *SSRN Electronic Journal*, *50*(833). https://doi.org/10.2139/ssrn.2646740

Rose, N. (1999). *Powers of freedom*. Cambridge University Press.

Rösing, I., & de Solla-Price, D. (1977). *Science, technology and society, a cross-disciplinary approach*. Sage Publications.

Samdal, G., & Meland, E. (2018). Helse uansett størrelse. *Tidsskrift For Den Norske Legeforening*. https://doi.org/10.4045/tidsskr.17.0863

Sardar, Z., & Van Loon, B. (2011). *Philosophy of science - A graphic guide*. Icon Books.

Savona, N., Thompson, C., Rutter, H., & Cummins, S. (2017). Exposing complexity as a smokescreen: a qualitative analysis. *The Lancet*, (S3), 390. https://doi.org/10.1016/s0140-6736(17)32938-0

Savona, N., Thompson, C., Smith, D., & Cummins, S. (2020). 'Complexity' as a rhetorical smokescreen for UK public health inaction on diet. *Critical Public Health*, 1-11. https://doi.org/10.1080/09581596.2020.1755421

Scrinis, G. (2013). *Nutritionism*. Columbia University Press.

Shaw, S. (2010). Reaching the parts that other theories and methods can't reach: How and why a policy-as-discourse approach can inform health-related policy. *Health: An Interdisciplinary Journal For The Social Study Of Health, Illness And Medicine*, *14*(2), 196-212. https://doi.org/10.1177/1363459309353295

Shoveller, J., Viehbeck, S., Di Ruggiero, E., Greyson, D., Thomson, K., & Knight, R. (2016). A critical examination of representations of context within research on population health interventions. *Critical Public Health*, *26*(5), 487-500. https://doi.org/10.1080/09581596.2015.1117577

Skirbekk, G. (2004). Vitskapsteori – positiv eller kritisk? [Vitenskapsteori - positiv or critical?]. In R. Granaas, G. Hjorthol, N. Simonhjell & J. Sørbø, *Mellom sann skrift og mytisk røynd – Festskrift til Jan Inge Sørbø [Between true writings and mytical reality - celebratory publication for Jan Inge Sørbø]* (pp. 166-181). Høgskulen i Volda.

Skirbekk, G. (2018). Processes of Modernisation: Scandinavian Experiences. *Transcultural Studies*, *14*(2), 133-149. https://doi.org/10.1163/23751606-01402002

Skirbekk, G. (2019). *Epistemic challenges in a modern world: From "fake news" and "post truth" to underlying epistemic challenges in science-based risk-societies*. "ZEITDIAGNOSEN", LIT Verlag,.

Skjervheim, H. (1996). Deltakar og tilskodar [Participant and observer]. In H. Skjervheim, *Deltakar og tilskodar og andre essays [Participant and observer and other essays]*. Aschehoug.

Skjervheim, H. (2020). Sosiologien som vitskap: positiv eller kritisk disiplin? [Sociology as science: positive or critical discipline?]. In H. Skjervheim, *Deltakar og tilskodar og andre essays [Participant and observer and other essays]*. Aschehoug.

Skrabanek, P. (1994a). The emptiness of the black box. *Epidemiology*, *5*(5), 553-555. http://www.jstor.org/stable/3702214.

Skrabanek, P. (1994b). *The death of humane medicine and the rise of coercive healthism*. Social Affairs Unit.

Smith, L., & Holm, L. (2011). Obesity in a life-course perspective: An exploration of lay explanations of weight gain. *Scandinavian Journal Of Public Health*, *39*(4), 396-402. https://doi.org/10.1177/1403494810395819

SNOW, C. (1959). Two Cultures. *Science*, *130*(3373), 419-419. https://doi.org/10.1126/science.130.3373.419

Solbrekke, T., Heggen, K., & Engebretsen, E. (2013). Ambitions and Responsibilities: A Textual Analysis of the Norwegian National Curriculum Regulations for Nursing Education. *Scandinavian Journal Of Educational Research*, *58*(4), 479-494. https://doi.org/10.1080/00313831.2013.773557

Strand, R. (2019). Vitenskapsteori: What, Why, and How?. *Social Philosophy Of Science For The Social Sciences*, 31-43. https://doi.org/10.1007/978-3-030-33099-6_3

Strand, R., & Cañellas-Boltà,, S. (2017). Reflexivity and modesty in the application of complexity theory. In Â. Pereira, S. Vaz & S. Tognetti, *Interfaces between science and society*. Routledge.

Tembo, M., Studsrød, I., & Young, S. (2020). Governing the family: immigrant parents' perceptions of the controlling power of the Norwegian welfare system. *European Journal Of Social Work*, 1-12. https://doi.org/10.1080/13691457.2020.1738349

Thorlindsson, T. (2011). Bring in the social context: Towards an integrated approach to health promotion and prevention. *Scandinavian Journal Of Public Health*, *39*(6_suppl), 19-25. https://doi.org/10.1177/1403494810394549

Tranøy, K. (1986). *Vitenskapen*. Universitetsforlaget.

Turrini, M. (2015). A genealogy of 'healthism': Healthy subjectivities between individual autonomy and disciplinary contro. *Eä-Journal Of Medical Humanities & Social Studies Of Science And Technology*, *7*(1), 11-27. https://doi.org/hal-01350627

Vallgårda, S. (2007). Review Article: Public health policies: A Scandinavian model?. *Scandinavian Journal Of Public Health*, *35*(2), 205-211. https://doi.org/10.1080/14034940600858433

Vallgårda, S. (2008). Social inequality in health: Dichotomy or gradient?. *Health Policy*, *85*(1), 71-82. https://doi.org/10.1016/j.healthpol.2007.07.004

Vallgårda, S. (2011a). Addressing individual behaviours and living conditions: Four Nordic public health policies. *Scandinavian Journal Of Public Health*, *39*(6_suppl), 6-10. https://doi.org/10.1177/1403494810378922

Vallgårda, S. (2011b). Why the concept ''lifestyle diseases'' should be avoided. *Scandinavian Journal Of Public Health*, *39*(7), 773-775. https://doi.org/10.1177/1403494811421978

van Hulst, M., & Yanow, D. (2016). From Policy "Frames" to "Framing". *The American Review Of Public Administration*, *46*(1), 92-112. https://doi.org/10.1177/0275074014533142

Veit, H. (2013). *Modern Food, Moral Food: Self-Control, Science, and the Rise of Modern American Eating in the Twentieth Century*. The University of North Carolina Press.

Villalonga-Olives, E., Wind, T., & Kawachi, I. (2018). Social capital interventions in public health: A systematic review. *Social Science & Medicine*, *212*, 203-218. https://doi.org/10.1016/j.socscimed.2018.07.022

Warin, M., Zivkovic, T., Moore, V., Ward, P., & Jones, M. (2015). Short horizons and obesity futures: Disjunctures between public health interventions and everyday temporalities. *Social Science & Medicine*, *128*, 309-315. https://doi.org/10.1016/j.socscimed.2015.01.026

Wertheim, M. (1995). *Pythagoras' trousers: God. Physics, and the Gender Wars*. Fourth Estate.

WHO. (1986). *Ottawa charter for health promotion: An International Conference on Health Promotion, the move towards a new public health 17-21 November*. Ottawa, Geneva: World Health Organization.

WHO. (2000). *Obesity: preventing and managing the global epidemic (No. 894).*. World Health Organization.

WHO. (2005). *Bridging the "Know-Do" gap: Meeting on knowledge translation in global health, 10–12 October 2005*. Geneva: World Health Organization.

WHO. (2016). *Action Plan for Implementation of the European Strategy for Prevention and Control of Noncommunicable Diseases 2012-2016*. World Health Organization.

Wynne, B. (1996). May the sheep safely graze? A reflexive view of the expert-lay knowledge divide. In S. Lash, B. Szerszynski & B. Wynne, *Risk, Environment and Modernity: Towards a New Ecology*. Sage.

Zola, I. (1972). Medicine as an Institution of Social Control. *The Sociological Review*, *20*(4), 487-504. https://doi.org/10.1111/j.1467-954x.1972.tb00220.x

Zola, I. (1977). Healthism and disabling medicalization. In I. Illich, J. McKnight, J. Caplan, I. Zola & H. Shaiken, *Disabling Professions (Ideas in Progress)*. Marion Boyars.

Publications

Paper I)

Title: Towards an analytics of healthism – An epistemological discussion of a critical concept

Authors: Helene Nilsen and Jan Reinert Karlsen

To be submitted to: Critical Public Health

Paper II)

Title: The Unstable Meaning of 'Social Inequity in Health': a study of a Norwegian public health intervention from political outline to implementation and evaluation

Author: Helene Nilsen

To be submitted to: Health - An Interdisciplinary Journal for the Social Study of Health, Illness and Medicine

Paper III)

Title: To what extent are interventions addressing physical activity in children evidence-based? – A frame analysis of a Norwegian public health project in kindergartens

Authors: Helene Nilsen, Merle Jacob, Jan Reinert Karlsen

To be submitted to: Science, Technology, and Human Values

Graphic design: Communication Division, UiB / Print: Skipnes Kommunikasjon AS

uib.no

ISBN: 9788230865330 (print)
9788230861233 (PDF)