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Exploring social influences on children's food attitudes and consumption

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Abstract

Purpose: In light of the increasing numbers of overweight children observed today who follow inadequate diets, this dissertation mainly explored how children are socialised as food consumers. An additional purpose was to explore the advantages of using participatory photo interviews while researching children's attitudes and behavioural patterns with respect to two food contexts, namely, lunch in kindergartens and shared dinners at home. Four research questions were addressed by four different papers. Paper 1 explored the role of mere exposure and norms in children's attitudes to seafood (RQ 1). Paper 2 explored the role of family communication and parents' feeding practices in children's food preferences (RQ 2). Paper 3 explored the role of time stress coping strategies in children's food consumption (RQ 3). Paper 4 discussed the methodological advantages and disadvantages of participatory photo interviews in exploring children's dinner preferences (RQ 4).

Methodology: Two qualitative methods were applied to explore the research questions of the dissertation. Paper 1 employed interviews of 24 children, aged four to six, in pairs, while papers 2–4 used participant photo interviews with 12 children, aged seven to eight, and their parents. Analyses for papers 1 and 2 were conducted by directed content analysis, while paper 3 applied conventional content analysis. Analysis for paper 1 was conducted manually, while the others used the NVivo 10 qualitative data analysis software. Several ethical precautions were taken to ensure children's voluntary and informed consent to participate in research.

Findings: Paper 1 found that children with high seafood exposure used more cognitive associations by describing seafood as healthy. They also expressed more positive attitudes towards seafood compared to children with low seafood exposure. The findings indicated a stronger socialisation effect from parents than preschool teachers due to the lack of descriptive norms in kindergarten.

Paper 2 found that most families were conversation-oriented and communication tended to shift from consensual on weekdays to pluralistic on weekends. On weekdays, the dinner menu was often a compromise between children's preferences and parents' intentions to provide quick, healthy dinner options for the family. However, to a greater

extent on weekends, children were allowed to choose dinner alternatives for the entire family. Restriction of unhealthy dinner alternatives was the practice most used to control children's diets.

Paper 3 found that children's participation in sport activities made families feel stressed due to pressures of time. Unhealthy food consumption during busy days was often a consequence of substituting snacks for traditional dinners and avoiding food preference conflicts with children. Confidence in cooking, meal planning skills and engaging children and grandparents in cooking improved families' food consumption, whereas low confidence in cooking and planning skills was more likely to result in unhealthy food consumption. By using compensating behaviour, most families treated weekend dinners as a family reward and as a chance to make up for time-stressed weekdays; thus, in some cases, they tended to choose popular foods over healthy ones on those occasions.

Paper 4 found that participant photo interviews helped children remember and describe sensory, cognitive and affective situational associations of their meals with increased confidence. This approach helped explore interesting aspects of children's preferences, such as their taste experiences, the importance of controlling and choosing meal ingredients and ambivalent food preferences. The observed disadvantages were parental involvement during data collection and the potential for sensitive information to be revealed.

Conclusion and implications: To promote a healthier diet, children's caregivers should make healthy food alternatives more easily available to children. It is important that they eat meals together with the children in order to function as positive role models. Children should be given control of what they eat and caregivers should be responsive to children's preferences while guiding them towards healthy dinner alternatives, rather than use force and restriction. Future food interventions should aim at improving parents' cooking and planning skills, as well as engaging other family members in cooking dinners. Participant photo interviews are a promising methodological approach to invite children into research on food attitudes, preferences and consumption behaviours.

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Sincerely yours,

Sivill Alm



Table of contents

| | |
|---|-----|
| PART 1. INTRODUCTION | 1 |
| 1.1 Research questions and conceptual framework..... | 4 |
| 1.2 Theoretical framework..... | 7 |
| 1.2.1 Attitudes..... | 7 |
| 1.2.2 Preferences..... | 10 |
| 1.2.3 Consumption | 12 |
| 1.2.4 Influencers on children’s attitudes, preferences and consumption | 12 |
| Mere exposure | 13 |
| Norms..... | 14 |
| Family communication | 15 |
| Feeding practices..... | 19 |
| Time stress coping strategies | 22 |
| 1.3 Methodology..... | 25 |
| 1.3.1 Interviewing children in pairs..... | 26 |
| 1.3.2 Participant photo interviews with children and parents | 27 |
| 1.3.3 Analysis of interview material | 29 |
| 1.3.4 Ethical precautions for researching with children | 30 |
| PART 2: PAPERS..... | 33 |
| 2.1 Exploring seafood socialisation in the kindergarten: An intervention’s influence on children’s attitudes..... | 35 |
| 2.2 The role of family communication and parents' feeding practices in children's food preferences | 53 |
| 2.3 Coping with time pressure and stress: Consequences for families’ food consumption | 65 |
| 2.4 Participatory photo interviews for exploring children’s food preferences..... | 99 |
| PART 3: MAIN FINDINGS, CONTRIBUTIONS AND IMPLICATIONS..... | 125 |
| 3.1 Mere exposure and norms’ role on attitudes | 125 |
| 3.1.1 Theoretical contributions and practical implications..... | 126 |
| 3.2 Communication and role of feeding practices’ role in preferences..... | 127 |
| 3.2.1 Theoretical contributions and practical implications..... | 130 |
| 3.3 The role of time stress coping strategies in consumption | 131 |
| 3.3.1 Theoretical contributions and practical implications..... | 133 |
| 3.4 Advantages and disadvantages of participant photo interviews..... | 134 |
| 3.4.1 Methodological contributions and implications | 135 |
| 3.4.2 Ethical considerations and implications | 136 |

| | | |
|-----|--|-----|
| 3.5 | Limitations and suggestions for future research..... | 137 |
| 3.6 | Concluding remarks..... | 139 |
| | References for part 1 and 3..... | 140 |
| | Appendix 1: Interview guide (paper 1)..... | I |
| | Appendix 2: Interview guide for children (papers 2, 3 and 4)..... | III |
| | Appendix 3: Interview guide for parents (papers 2, 3 and 4). | IV |
| | Appendix 4: Information leaflet to children (papers 2, 3 and 4)..... | V |

PART 1. INTRODUCTION

Approximately 22% of all children from OECD countries are classified as overweight or obese (OECD, 2013). This trend has put many children at risk of developing several health conditions as they get older, such as orthopaedic problems, depression, cardiovascular disease, diabetes and certain forms of cancer. The explanation for this trend is mainly that children have very sedentary lifestyles and unhealthy diets (Marshall et al., 2007). Children and adolescents generally consume too much food with salt, sugar and saturated fat, and are advised to increase their intake of vegetables, fruit, whole grains and seafood (The Norwegian Directorate of Health, 2011). Since eating patterns established in childhood tend to continue until adulthood (Mikkilä et al., 2005), helping children develop healthy food habits from an early age is crucial to protect the health of future generations.

The main *purpose* of this PhD dissertation is, therefore, to qualitatively *explore how children are socialised as food consumers*. Such theoretical knowledge can give children's caregivers and policy makers' advice on how to help children form and practice healthy food attitudes, preferences and consumption behaviours. Research on children's food consumption is not only interesting from a health perspective, but is also important for food producers and distributors, considering that children are independent consumers using their own money, are important influencers on their parents' purchases and represent the future market for food products and services (John, 1999; Marshall, 2010). A secondary *purpose* is to *explore the use of participatory photo interviews while researching children's attitudes and behavioural patterns in a specific food context*. From a methodological perspective, knowledge about how to understand the social world from the children's perspective is important to researchers who report children's own evaluations and experiences of food (Marshall and O'Donohoe, 2010)

It has been suggested that genes may explain between 30% and 50% of the variance in obese people (Birch and Fisher, 1998). The rest are explained by environmental factors. There are numerous environmental factors that may explain human food consumption, such as culture, food availability and advertising (Sheperd and Sparks, 1994). For children, the social environment at home is particularly important (Cruwys et al., 2015). Parents not only set the foundation for children's genes, but are important role models through their own

food attitudes, preferences and behaviours from the time their children are born, since they determine ‘when’, ‘what’ and ‘how much’ food is provided for their children (Larsen et al., 2015b). In many countries, young children attend public or private kindergartens. For example, in Norway, 90% of all 1–5 year olds attend kindergartens (Statistics Norway, 2015). This implies that food consumed in kindergartens constitutes a significant part of the children’s diets (Directorate of health, 2007; Bernardi et al., 2010). In this dissertation, it is emphasised that preschool teachers are important role models for children’s food consumption as well, and therefore, the dissertation integrates both parents and teachers into a broader group of agents called *caregivers*. Thus, the focus of this dissertation is the social environment that caregivers provide to their children.

It has been argued that human eating behaviour can only be fully understood in a social context and that children’s consumption should be studied in specific *contexts* without generalising from other contexts (Eertmans et al., 2001; Ekström, 2010). Following such reasoning, this dissertation qualitatively explored children’s consumer experience in two food contexts, namely, lunch in kindergartens and shared dinners at home. The lunch context in kindergartens was chosen since it may be used by politicians as an efficient aid to improve children’s diet, while the dinner context was chosen to be able to give caregivers advice on how to practice healthy food behaviours for the benefit of their children. In addition, dinner is normally the day’s largest meal and provides more important nutrients than other meals (Gillman et al., 2000), and eating dinner as a family is the one activity where parents and children spend the most time together (Bugge and Almås, 2006). Thus, shared family dinners represent a context with a strong socialisation effect, which may encourage children to consume healthy food (Pedersen et al., 2012).

Studying children’s food consumption in social contexts can be challenging. With the contemporary Western non-authoritarian style of bringing up children and the status of children as full members of society, children have increasingly gained influence on their caregivers’ food purchases (Solér and Plazas, 2012; Ekström, 2010; Marshall et al., 2007). Children influence their caregivers’ food choices by expressing their preferences, being nice and helpful, negotiating, persuading, making demands and refusing to eat the food that their caregivers serve if not to their liking (Bassett et al., 2008; Holsten et al., 2012; Nørgaard and Brunsø, 2011; Pedersen et al., 2012). Research has shown that the more influence children

have, the less healthy families' diets tend to be (Papaioannou et al., 2013). Caregivers usually want to serve food they consider to be healthy, but may experience inner conflict since they also want to serve food that the children will like (Nørgaard and Brunsø, 2011). Thus, the foods consumed are often a compromise between several factors, and it may be difficult to find causal explanations for children's food consumption patterns (Pedersen et al., 2012). Marshall et al. (2007) argue that the complexity of families' interactions related to food consumption is still not well understood or documented. This is one of the reasons why this dissertation applied a *qualitative explorative design* (Ghauri et al., 1995) to investigate how children are socialised as food consumers.

Children learn consumption behaviours from their caregivers both through direct learning, such as being told something, and indirect learning by observation (Ekström, 2010). Such learning may function as a guide for their own behaviour (Larsen et al., 2015b). To further understand how children learn consumption behaviours from the social environment, this dissertation uses social cognitive theory, initially known as social learning theory (Ormrod, 2009; Bandura, 1977), consumer socialisation (Ward, 1974) and food socialisation (Nicklas et al., 2001) as an *overarching framework*. Bandura's (1977) social cognitive theory suggests that humans learn from one another via observation, imitation and modelling (Bandura, 1977). This theory is considered as a bridge between the traditional behavioural and cognitive learning theories (Ormrod, 2009), and views learning as a reciprocal interaction between a person's behaviour, cognitive processes and environmental factors (Ekström, 1995). The interactions between these three factors are considered as interdependent, which means that their influence varies, depending on the environment and for different behaviours. As an example, environmental factors (e.g. exposure of seafood in the kindergarten) may set constraints on behaviour (e.g. consuming seafood), and sometimes, on personal factors (e.g. attitudes to seafood), and regulate aspects of environmental events. Social cognitive theory comprises several elements, such as mere exposure, reinforcement and self-efficacy. The concept of self-efficacy is, in this study, considered to be less relevant while exploring children's food attitudes, preferences and consumption since children's food availability is largely decided by their caregivers. Thus, the studied concepts and theories in this dissertation are placed in the broader context of social cognitive theory, but the social cognitive theory is not completely utilised.

Studies on how children learn consumer behaviour have often been conducted within the field of *consumer socialisation* (Ekström, 2007). Consumer socialisation is ‘the process by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace’ (Ward, 1974:2). Even though this definition focuses on young children and adolescents, other researchers, such as Ekström (2010), emphasise that consumer socialisation is a life-long process and that parents may be socialised by their children as well. The definition implies that functioning as consumers not only means functioning as purchasers, but also relates to consuming and disposing products as well, and that consumer socialisation requires a social relationship (Ekström, 1995). The concept of *food socialisation* (Nicklas et al., 2001) is also used in this dissertation to understand more specifically how children’s food evaluations are influenced by their social environments.

1.1 Research questions and conceptual framework

Social cognitive theory has been studied from different perspectives and in different contexts, such as students’ academic skills (Braaksma et al., 2002), aggression promoted by video games (Anderson and Bushman, 2001), generosity and moral (Rushton, 1975) and health behaviours (Bandura, 1998). Likewise, research examining children’s consumer behaviours has been carried out within a wide range of topics, such as children’s knowledge of products, brands, advertising, shopping, pricing, decision-making strategies, parental influence (John, 1999) and environmental consumer socialisation among children (Grønhøj, 2007). This dissertation uses social cognitive theory and consumer socialisation as broader contexts qualitatively to explore children’s food attitudes, preferences and consumption behaviours.

This dissertation considered four research questions addressed by four separate papers to explore its purpose. Paper 1 (Alm and Olsen, 2015) explored the influence of increased food exposure and norms in kindergartens on children’s attitude towards food. The paper utilised a national seafood intervention programme called ‘Fiskesprell’, developed for Norwegian kindergartens (Fiskesprell, 2015) to increase children’s consumption of seafood. The intervention programme aimed at increasing children’s knowledge about

seafood, such as learning the different names of typical fish species, and teaching children to prepare seafood meals for other children in the kindergarten. The paper applied theories about attitudes (Ajzen, 2001; Aikman et al., 2006), mere exposure (Zajonc, 1968; Pliner, 1982) and norms (Higgs, 2015).

RQ 1: *What is the role of mere exposure and norms on children's attitudes to seafood?*

Paper 2 (Alm et al., 2015) explored how family-dinner-related communication takes place and how parents' feeding practices are associated with their children's food preferences. The theoretical foundation was preference literature (Zeinstra et al., 2007), Family Communication Patterns Theory (FCPT) (Koerner and Schrodt, 2014) and theories about parent's feeding practices (Vollmer and Mobley, 2013), such as restrictions (Rollins et al., 2014), rules (Hart et al., 2002), rewards (Larsen et al., 2015b), pressure (Sleddens et al., 2014), arguments (Khandpur et al., 2014), disguising food (Spill et al., 2011) and providing positive meal-time environments (Mita et al., 2015)

RQ 2: *What is the role of family communication and parents' feeding practices on children's food preferences?*

Paper 3 (Alm and Olsen, in review-a) explored which food coping strategies families applied when experiencing time stress and how these affected their consumption of shared home dinner meals. Concepts such as consumption, stress (Michels et al., 2012) and stress coping strategies (Devine et al., 2006; Carver and Connor-Smith, 2010) were used as theoretical foundations.

RQ 3: *What roles do time stress coping strategies have on children's food consumption?*

In the area of methodology, the main contributions are presented in Paper 4 (Alm and Olsen, in review-b) of the dissertation. This study explored more thoroughly what advantages and disadvantages participant photo interviews may have while conducting research on children's food attitudes, preferences and consumption. The paper used examples from the second paper about food preferences to illustrate how the method may discover new information about children's food attitudes, preferences and consumption.

RQ 4: *What are the methodological advantages and disadvantages of participatory photo interviews when exploring children’s dinner preferences?*

The relations between the main research questions, concepts, theories and methodological approach for the papers are shown in the conceptual and methodological model (Figure 1). The model is divided into two levels of research areas: one for theoretical concepts and their relationships and the other for the methodological approach. ‘Social cognitive theory’ and ‘Consumer and food socialisation’ are placed as an overarching theoretical framework. The role of mere exposure and norms in children’s food attitudes was addressed in paper 1 and by research question 1. Family communication and the role of feeding practices in children’s food preferences was addressed in paper 2 and by research question 2. Time stress coping’s role in children’s food consumption was addressed in paper 3 and by research question 3. At the second level of the model is paper 4 and research question 4, placed to discuss the advantages and disadvantages of participatory photo interviews. The dissertation has a qualitative approach. Concepts and relationships are based on previous studies and are empirically explored in papers 1–4. Thus, validity of the concepts and their causal relationships call for some caution in the discussion, findings and implications.

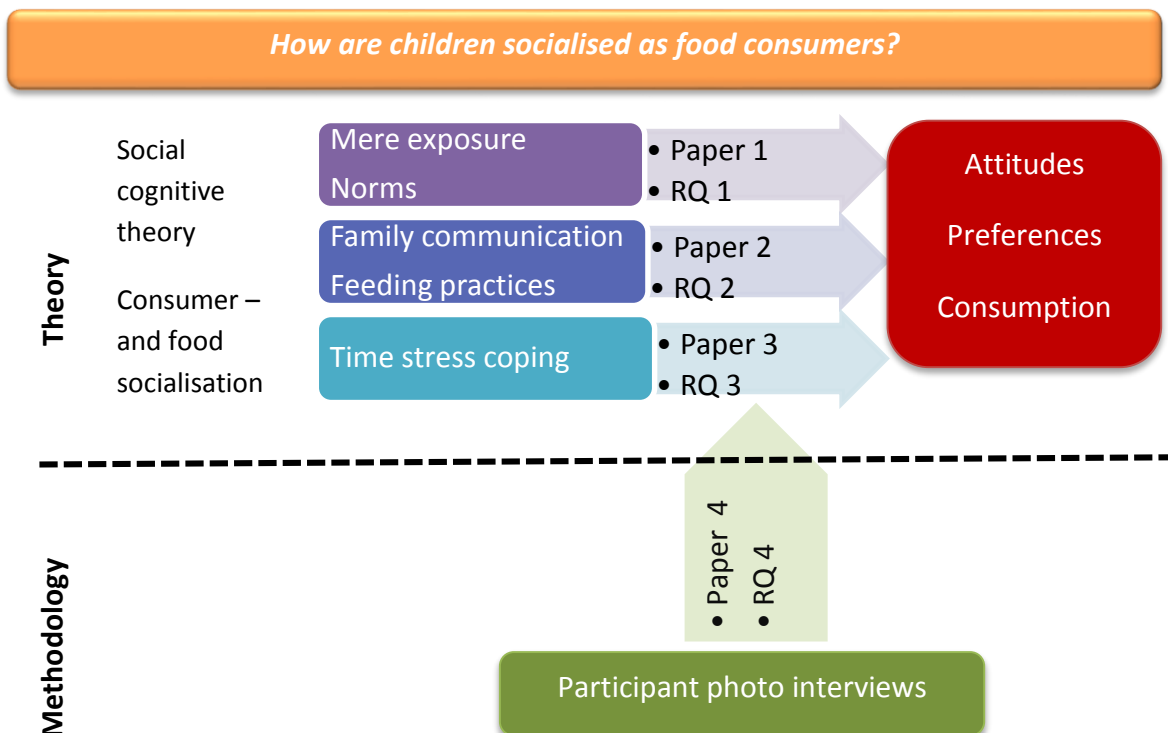


Figure 1: Conceptual and methodological framework for the dissertation.

1.2 Theoretical framework

This section will present the theoretical framework for the dissertation. To make a thoroughly foundation for the dissertation, the chapter will give an expanded discussion of the chosen concepts and theories which are already presented in the papers.

Research on ‘why does who eat what, when and where?’ has been carried on across many different scientific disciplines for several decades (Köster, 2009). Thus, many concepts have been applied to explain human food behaviours. Such concepts may be beliefs (Brands et al., 2012), liking (Pliner, 1982), habits (Honkanen et al., 2005), expectations (Larsen et al., 2015a), perceptions (Elliott, 2011), preferences (Cooke and Wardle, 2005) and attitudes (Edwards and Hartwell, 2002). Likewise, concepts such as choice (Altintzoglou et al., 2015), acceptance (Blissett and Fogel, 2013), intake (Birch and Davison, 2001) and consumption (Nicklas et al., 2001) been used to describe humans’ actual food behaviours. Research using these concepts shows a growing interest in explaining children’s food consumption. Since the dissertation uses social cognitive theory and theory of consumer and food socialisation as an overarching framework, attitudes and preferences, which include processes of learning and socialisation, are used to explain children’s food consumption. Due to the qualitative explorative approach, it will not make clear distinctions between the different constructs, but since the concepts origins from different fields of science (e.g. marketing, psychology, sensory and nutrition); some of the similarities and differences between the chosen concepts will be discussed. Attitudes are, in this dissertation, considered as a global construct of food evaluation while preferences are considered as a more specific facet of food evaluations and attitudes (Eagly and Chaiken, 1993; Kardens, 1999). In addition, the concept ‘consumption’ was used to describe children’s actual eating behaviours. These concepts will be described in more detail below.

1.2.1 Attitudes

Attitudes have been used as one of the main determinants for explaining food consumption behaviours (Olsen, 2004). Research indicates that food attitudes start developing during childhood and influence consumption behaviours and health as the child grows into adulthood (Kelly et al., 2006). The construct of attitude has many definitions, but there seems to be an agreement that ‘...attitudes represent a summary evaluation of a psychological object captured in such attribute dimensions as good-bad, harmful-beneficial,

pleasant-unpleasant and likable-dislikeable' (Ajzen, 2001:28). Psychological objects, or attitude objects, may be virtually anything that can be evaluated, such as physical objects, persons, ideas and behaviours (Eagly and Chaiken, 1993). Evaluation is the core of the definition. An individual does not have an attitude until he or she has a tendency to respond with a degree of evaluation when confronted with the psychological object (Kardens, 1999). If such evaluative processes do not occur, judgements of objects may be referred to as beliefs. Beliefs are considered as the associations that people establish between the attitude object and the various attributes, and are therefore referred to as building blocks for attitudes and other evaluative judgements (Eagly and Chaiken, 1993). For example, some parents may believe that infant formula is unsafe to feed to their children due to the deaths of many Chinese infants after drinking contaminated formula in 2008 (Simpson, 2008). This belief links the attitude object (infant formula) with a negative attribute, which leads to a negative attitude towards infant formula. To be considered as an attitude, the judgement needs to be located on a cognitive continuum, such as very unsafe, unsafe, neutral, safe or very safe (Kardens, 1999).

The traditional view of attitudes is that they are formed through cognitive, affective and behavioural processes and that they are expressed through cognitive, affective and behavioural responses (Albarracín et al., 2005). Cognition refers to the thoughts that people have about the attitude object, such as 'salmon is healthy' (Eagly and Chaiken, 1993). Affect refers to the feelings that people have in relation to the attitude object, such as negative feelings that might occur if the person believes that farmed salmon is bad for the environment. Behaviours are the intentions to act and/or actual actions that a person takes related to the object, such as eating salmon. Eagly and Chaiken (1993) emphasise that attitudes do not need the presence of cognition, affect and behaviour, but can be formed by any of the three components. Ajzen (2001) claims that some humans tend to build their attitudes based on cognition (referred to as 'thinkers'), while others tend to use affect (referred as 'feelers') as foundation of their attitudes. In addition, research on human attitudes has traditionally been built on the assumption that knowledge affects attitudes, which, in turn, influence behaviours. Therefore, changes in behaviour can be brought about by increasing knowledge (Shepherd and Sparks, 1994). However, children's limited cognitive abilities may limit the effect of knowledge-building (John, 1999). Compared to adults,

children tend to build their attitudes on affect and hedonistic feelings (Borgers et al., 2000; Lumeng et al., 2008). This may partly explain why children and adolescents usually are less concerned about eating healthy food (Berg et al., 2000; Honkanen et al., 2004).

Attitudes to some objects may rely more on affect than cognition and vice versa (Ajzen, 2001). Thus, it will be too simplistic to claim that children build their attitudes on affect. Aikman et al. (2006) argue that food may have multiple information bases and sub-categories as a contrast to the traditional view of attitudes. They state that food attitudes comprise five distinct informational bases, the first being *Positive and negative effect*, which reflects the way food makes people feel, e.g. happy or disgusted. The *general sensory qualities* are associations such as flavour, smell and texture, while the *specific sensory qualities* differentiate these further to descriptions such as 'oily' and 'salty'. The fifth information base is called *abstract cognitive quality*, which requires cognitive processes, making the individual able to understand, for instance, what effects the food has on the body. Evaluations of one or more of these information bases determine a person's food attitude. For example, a slightly positive attitude to cod might reflect a strong positive evaluation of the abstract cognitive quality 'healthiness', but a slightly negative evaluation on the general sensory quality 'taste'.

Attitudes may vary, depending on the particular context in which those attitudes are reported, because different contexts may invoke different integration rules (Krosnick et al., 2005). For example, children may express positive attitudes to seafood when in kindergarten but negative attitudes at home. Because of this context-driven variability in attitudes, some theorists have suggested that people may have multiple attitudes towards objects instead of just one. Thus, research on attitudes needs to consider the context in which they are expressed. Paper 1 of the dissertation, therefore, used the information bases of Aikman et al. (2006) to explore how young children build their food attitudes in the kindergarten context. Paper 1 explored children's food attitudes towards a specific food category, namely, seafood. There are probably no studies that have focussed on such attitudes for young children. An older study by Szczesniak (1972) on teenagers, aged 13–18, found that a positive attitude to seafood was usually explained by desirable taste, while negative attitude was generally explained by undesirable texture. However, the study did not distinguish

between different information bases for the teenagers' attitudes, evaluations or different seafood products.

1.2.2 Preferences

Like attitudes, *preferences* are also concepts used to evaluate objects (Kardens, 1999). While attitudes are evaluative judgements towards one object, preferences are evaluative judgements of two or more objects (Kardens, 1999; Zeinstra et al., 2007). Thus, preferences always involve making comparisons between objects. Attitudes may lay the foundation for preferences (Kardens, 1999). For example, children may form preferences by comparing their attitudes toward salmon and cod. If they have more favourable attitudes towards salmon than cod, they would prefer salmon. However, preferences are not always based on global evaluations. They can be based on comparisons of specific attributes of two or more products—such as beliefs. For example, if a child is served two unfamiliar vegetables, he/she is unlikely to have formed any attitudes towards the vegetables. By comparing the appearance of the two vegetables, the child may prefer one over the other.

Unlike other concepts that are used to explain human food consumption, such as liking and disliking (which are affective responses to foods) (Zandstra and El-Deredy, 2011), preferences consist of both affect and cognition (Zeinstra et al., 2007; Schutz, 1994). Young children, aged 2–7 years, tend to form more affective evaluations of objects, while older children, aged 7–11 years, usually focus more on cognitive attributes when forming preferences (Zeinstra et al., 2007). Young children have also been found to express their preferences in more affective terms, such as 'love' and 'hate', compared to adolescents and adults, who use terms such as 'like' and 'don't like'. Marshall et al. (2007) argue that children's food preferences need to be understood in social contexts. Parents are considered as the most influential actor of children's food preferences (Aschemann-Witzel et al., 2014).

Like food attitudes, food preferences are established early in life and viewed as important predictors of children's future food choices and consumption (Wiggins, 2014; Mikkilä et al, 2005). Some argue that preferences may be created as early as during pregnancy. A study by Mennella et al. (2001) found that babies of mothers who consumed carrot juice during pregnancy and who were breastfed tended to prefer carrot-flavoured cereal more than babies of mothers who had not consumed carrot juice during pregnancy. There is a consensus that children are born with genetic predispositions, which instil in them

preferences to sweet and salty *tastes* and a tendency to reject sour and bitter tastes (Birch and Davison, 2001). The *appearance* of food is especially important for young children's preferences (Zeinstra et al., 2007). As an example, children tend to prefer candy with red or green colour over orange and yellow colour (Walsh et al., 1990). From infancy to adolescence, children undergo large developments of their teeth, jaws and surrounding muscles (Zeinstra et al., 2010). This may explain why children below eight years tend to prefer food with soft *textures*, while older children usually prefer crispy and hard textures (Szczesniak, 1972; Zeinstra et al., 2007). Taste, rather than texture, determines food preferences as children become older.

Food texture is dependent on the method of *preparation*. Children older than eight years tend to prefer food with a uniform surface, such as raw, boiled or steamed vegetables (Baxter et al., 1998; Zeinstra et al., 2010). Mashed vegetables have been found to be less preferred due to the granular texture, while deep fried, stir fried and grilled vegetables are less preferred due to their brown colouring. Such preferences may reflect children's desire to have control over the food they put in their mouth (Zeinstra et al., 2010). Studies on children's preferences in composite *dishes* are scarce, compared with single food products, such as fruit and vegetables. Zeinstra et al. (2007) found that most children aged 4–12 tended to prefer soft, high-energy dishes, such as pancakes and French fries, and that those older children (7–12 years) tended to add preferences for meat and composite dishes, such as pizza and vegetable pie. Vegetables were less preferred, regardless of age. Combining research on food attitudes and preferences, Honkanen et al. (2004) found that Norwegian teenagers aged 14–18 generally had positive attitudes to seafood, but that they usually preferred dinner options, such as pizza, tacos, hamburgers and pasta, over seafood. Based on their reports of liking and preferences, 37% of the total sample were described as 'fish haters', while 27% were categorised as 'fish lovers'. Fish lovers usually preferred salmon and trout over other dinner alternatives.

Children's food preferences and intake are controlled by *social contexts* too (Williams, 2011). Several studies have found that physiological, genetic, sensory and affective factors are most decisive for preferences in infancy, while social or extrinsic factors are more decisive as children become older (Campbell and Crawford, 2001; Nicklaus and Issanchou, 2007). Parents are considered as the most important influencers on young

children's food preferences, while peers becomes more influential as children becomes older (Patrick and Nicklas, 2005). Studies on children's food preferences have often been conducted as experiments in laboratory settings (e.g. Altintzoglou et al., 2015; Birch et al., 1980; de Wild et al., 2013; Wardle et al., 2003; Zandstra and El-Deredy, 2011) or as surveys (e.g. Cooke and Wardle, 2005; Guidetti and Cavazza, 2008; Honkanen et al., 2004; Skinner et al., 2002). Contrary to such approaches, qualitative research in real-life settings reflects natural and ordinary events (Miles and Huberman, 1994), and may therefore help to find new interesting aspects relating to children's preferences. Paper 2 of the dissertation explored the role of family communication and parents' feeding practices in children's food preferences in a shared home dinner context. By using this approach, an increase in the understanding of children's food preferences was anticipated.

1.2.3 Consumption

Several researchers argue that predictive concepts such as preferences and attitudes alone are insufficient measures to explain actual food behaviours (Schutz, 1994; Köster, 2009). As an example, preferences are found to only explain about 50% of actual human food consumption (Schutz, 1994). Therefore many other concepts, such as choice, intake, acceptance and consumption, may be more accurate in describing humans' actual food behaviours (Altintzoglou et al., 2015; Blissett and Fogel, 2013; Birch and Davison, 2001; Nicklas et al., 2001). Food choice is widely used in food research literature and is often used in experimental settings where children can make independent choices (e.g. Altintzoglou et al., 2015; Frazier et al., 2012). Since the dissertation explored children's food socialisation in natural contexts (kindergarten and home), it was expected that children's food choices would be limited by what the caregivers made available, in other words, their caregivers' food choices. Of the other relevant concepts, consumption was chosen as the most appropriate and descriptive concept for paper 3 of the dissertation. Since consumption reflects actual behaviour, it may include the food choices of both caregivers and children.

1.2.4 Influencers on children's attitudes, preferences and consumption

People's food attitudes, preferences and consumption, like any other complex human behaviour, are influenced by many interrelating factors. Such influencers are usually related to the food (e.g. taste and texture), to the person making the choice (e.g. preferences and age) and to the environment (e.g. food availability and size of household)

(Sheperd and Sparks, 1994). For example, Neumark-Sztainer et al. (1999) found that American adolescents' food choices were driven by hunger, food cravings, appeal of food, time considerations, convenience, availability, parental influence, benefits of food (e.g. healthy), mood, body image, habit, cost and media influence. Research on children's eating behaviours emphasise the mutual influence that children and parents have on each other's food choices. Parents influence their children's food consumption by which food they make available, how they function as role models, which feeding practices they use to reinforce the eating patterns they see appropriate (Birch et al., 2007). Parents' practices are found to be influenced by child characteristics, such as age, gender, weight status and eating behaviours. Thus, to explore how children learn consumption behaviour and how they are socialised as food consumers, the dissertation applied theories about mere exposure, norms, family communication, parents' feeding practices and time stress coping strategies. These concepts will be further described and related to how they may influence children's food attitudes, preferences and consumption.

Mere exposure

Children are more likely to consume food that their caregivers make available to them and expose them to multiple times (Patrick and Nicklas, 2005). Mere exposure is considered as one of the learning mechanisms involved in children's eating behaviours (Eertmans et al., 2001), and it has been associated with healthy food consumption among children (Russell et al., 2015). In the 1960s the American researcher Robert Zajonc conducted several experiments, which showed that people who were exposed to unfamiliar stimuli tended to enhance their affective response to it as the number of exposures increased (Zajonc, 1968; Eertmans et al., 2001). He defined this phenomena as mere exposure, which is 'a condition making the stimulus accessible to the individual's perception' (Zajonc, 1968:1). Zajonc used stimulus such as unfamiliar Chinese signs and photographs of human faces, while Pliner (1982) was the first to document that the phenomena could be used for unfamiliar food products as well. Today, the theory of mere exposure is widely applied in food research and is used to explain how children can overcome food neophobia, which usually appears when children are between 18 and 24 months of age (Williams, 2011). Mere exposure has often been used in food interventions to make children like and eat healthy foods such as fruits and vegetables (Blanchette and Brug, 2005). Research has shown

that the number of exposures required to make preferences and attitudes positive to the stimuli differs according to age, with preteens needing up to 20 times the exposures in infants (Cooke, 2007). It has also been argued that taste exposure, not just visual exposure, is important to influence children's preferences and food consumption (Birch et al., 1987).

In paper 1, mere exposure was studied to understand how increased seafood exposure in kindergartens may influence children's attitude to seafood. Children participating in the seafood intervention 'Fiskesprell' were offered seafood for lunch twice every week and always had seafood available as a sandwich spread for other meals. The influence of increased seafood exposure was assessed by comparing children's attitudes from a kindergarten not participating in the intervention (low exposure to seafood) with those of children participating in the intervention (high exposure to seafood).

Norms

Human tendency to model the eating choices of their dining partners have led to a broad consensus that norms about eating have a powerful effect on human food consumption (Higgs, 2015). Norms are 'implicit codes of conduct that provide a guide to appropriate action' (Higgs, 2015:1). Two reasons why people follow eating norms have been suggested (Cruwys et al., 2015; Higgs, 2015). The first is that following norms gives a sense of belonging to a social group, which is driven by our desire to be liked. The second is that following norms gives an indication of which eating patterns are acceptable. By following norms, children may learn which foods are edible and non-toxic, as well as the culturally correct food to eat. This may explain why some cultures consider insects as edible food, while they may provoke strong aversions and disgust in other cultures. A consequence of not following social eating norms might be embarrassment or disapproval of others. As an example, considering the stereotypes of overeating and obesity, children may feel motivated to avoid social sanctions associated with excessive eating.

Several researchers have made distinctions between descriptive norms and injunctive/subjective norms (Pedersen et al., 2015; Cialdini and Trost, 1998; Tuu et al., 2008). *Subjective norms* are the person's beliefs about how others expect him or her to act (Berg et al, 2000; Nørgaard et al., 2007). *Descriptive norms* are the person's perceptions of what others actually do, reflecting what is considered as normal behaviour (Cialdini et al., 1990). Descriptive norms have been argued to exert a more powerful influence on children because

of observational learning (Bandura, 1969; Cruwys et al., 2015). There is evidence that the responsive 'do as I do' approach has a stronger positive effect on children's food consumption patterns than the unresponsive 'do as I say' approach (Birch et al., 2007; Pedersen et al., 2015). Such notion implies that caregivers need to present themselves as positive role models and show children that they like to eat healthy foods themselves and not just tell them to eat healthy food.

Researching normative behaviour might help to understand why children adapt their food intake to the actors in their social environments. Thus, paper 1 explored how children's perceptions of their preschool teachers' food preferences and consumption of seafood (descriptive norms) may differ from their perceptions of their caregiver's expressed expectations of children's seafood consumption (subjective norms). To find some indication as to how influential norms promoted by the preschool teachers were, children were also asked to describe their perceptions of their parents' norms with reference to seafood consumption at home.

Family communication

How families communicate about consumer issues is an important aspect of consumer socialisation because such communication is one of the processes in which parents educate their children's market skills and knowledge (Carlson et al., 1992; Moore and Moschis, 1981). Family Communication Patterns Theory (FCPT) is one of the most applied theories of family communication, and it has been applied to a wide range of communication behaviours within families (Schrodt et al., 2008; Koerner and Schrodt, 2014). Based on Newcomb's (1953) co-orientation model, FCPT was developed by McLeod and Chaffee (1972) while studying how families process information from mass media. It was first utilised within the consumer socialisation domain by Moschis (1985) and revised by Ritchie and Fitzpatrick (1990). According to FCPT, family communication processes will, over time, create a shared reality among family members and become patterned and reflect important values and beliefs families have about themselves and their relationships (Koerner and Schrodt, 2014; Baiocchi-Wagner and Talley, 2012).

Co-orientation is a vital concept within FCPT, which 'refers to a situation where two or more individuals focus their cognitive attention on the same object in their social or physical environment and form beliefs and attitudes about the object' (Koerner and Schrodt,

2014:3). Co-orientation leads to two types of cognitions for each person. The first is the person's own beliefs about the object, while the second is the person's perception of the other person's beliefs about the object (Koerner and Schrodt, 2014). If these are not congruent, family members will try to achieve an agreement. According to McLeod and Chaffee (1972), family members can achieve an agreement in two ways: family members can come to share beliefs about an object based on its perceived attributes (e.g. the fish is burned). If these attributes are not immediately obvious (e.g. the fish is too salty), family members discover these attributes jointly by discussing the object and its properties (Schrodt et al., 2008). Since this process focuses on the object and how family members conceive it, this process was labelled 'concept-orientation' by McLeod and Chaffee (1972) and later reconceptualised as *conversation orientation* by Ritchie and Fitzpatrick (1990). This approach emphasises the results of lengthy, involving and open discussions between family members (Koerner and Schrodt, 2014). In a conversation environment with high conversation orientation, family members spend a lot of time interacting with each other and share individual activities, thoughts and feelings with each other while decisions usually are a result of democratic processes (Koerner and Schrodt, 2014). However, families with low conversation orientation believe that open exchanges of ideas, opinions and values are unnecessary for the functioning within the family and children's socialisation (Koerner and Schrodt, 2014).

A different type of co-orientation and reaching agreement among family members is to allow other family members to define objects for them (e.g. children are convinced the fish is edible because their parents said so). Since this process emphasises the relationship between family members rather than the attributes of the object itself, McLeod and Chaffee (1972) labelled it socio-orientation. Ritchie and Fitzpatrick (1990) reconceptualised the process to *conformity orientation* since the communication emphasises conformity among the family members (Koerner and Schrodt, 2014). For families with high conformity orientation, it is important to have homogeneous beliefs, values and attitudes (Koerner and Schrodt, 2014). The family structure is often hierarchical, where children are taught to suppress their inner feelings and to be obedient to parents and authority figures, while parents are responsible for making plans and decisions on behalf of the entire family (McLeod and Chaffee, 1972; Koerner and Schrodt, 2014). Conversely, families with low

conformity orientation do not believe in traditional family structures and value personal space to the collective family's interests (Koerner and Schrod, 2014). Parents who emphasise low conformity and high conversation have a higher tendency to encourage their children to develop independent consumption perspectives, compared to high conformity and low conversation-oriented parents (Caruana and Vassallo, 2003; Nørgaard and Brunsø, 2011).

Koerner and Schrod (2014) emphasise that conversation and conformity orientations are not mutually exclusive, but most families use both strategies to a greater or lesser degree. By using median splits along the two dimensions, the two orientations create four family types: consensual, pluralistic, protective and laissez-faire. *Consensual families* are high in both conversation and conformity orientation. These families attempt to obtain agreement while preserving the hierarchy within the family. The parents are very interested in what their children have to say on a number of issues, while at the same time, they consider themselves as the final decision maker. It is important for them to resolve disagreements by listening to their children and spend time and effort to explain their values, beliefs and decisions to make their children understand the reasoning behind their decisions and adopt their belief system. *Pluralistic families* are high in conversation orientation and low in conformity orientation. These families practice open discussions of ideas without requesting obedience to authorities (Moschis, 1985). Parents do not feel the need to be in control of their children, make decisions for them or to agree with their children's decisions (Koerner and Schrod, 2014). Opinions are evaluated based on the support of the arguments rather than who promotes them. Children in these families learn to value family conversations while learning to be independent and autonomous consumers (Moschis, 1985).

Protective families are low on conversation orientation and high on conformity orientation (Koerner and Schrod, 2014). These families stress obedience to authorities and have little concern for open communication within the family. Parents tend to make decisions for the children and see little value in explaining their reasons to their children. Family members are expected to behave according to the interests and norms of the family, and children learn that there is little value in discussing their beliefs and tend to distrust their own abilities in making their own decisions. The final communication type, the *laissez-*

faire families, is low both in conversation and conformity orientation. These families communicate little with each other and have parents who tend to believe that all family members should be able to make their own decisions. Contrary to pluralistic families, parents show little interest in their children’s decisions, and therefore, conflicts are rare. Since children in these families do not receive much support from their parents, they tend to question their own abilities in making decisions and are, therefore, more open to peer influences. The four different family types created by the conceptual space between conversation and conformity orientation are illustrated in figure 2.

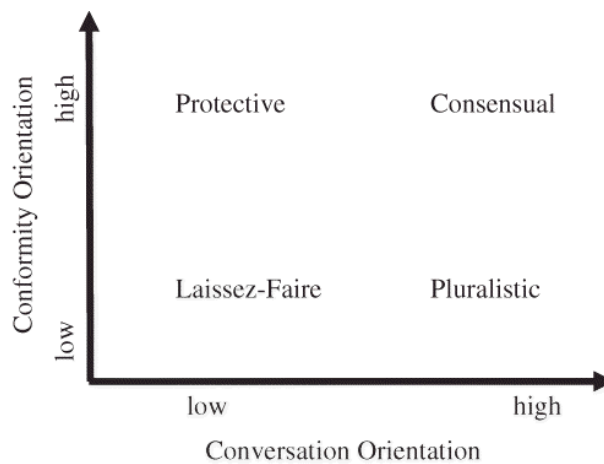


Figure 2: Four family types created by conversation and conformity orientation (Koerner and Schrod, 2014).

Within the consumer marketing research literature, the focus has largely been on how family members influence, or perceive their influence, on each other’s purchases through FCPT (e.g. Ritchie and Fitzpatrick, 1990; Rose et al., 2002; Caruana and Vassallo, 2003; Nørgaard et al., 2007; Olsen and Ruiz, 2008; Bassett et al., 2008; Nørgaard and Brunsø, 2011). These studies agree that children in families with high conversation orientation have more influence on their parents’ purchases and have more independent consumption perspectives, compared to families with high conformity orientation. Others have suggested that communication patterns change from protective towards consensual and pluralistic as the child becomes older and more independent, explaining why older children tend to have stronger influence on their parent’s purchases than younger children (Moschis and Mitchell, 1986; Rose et al., 2002; Schrod et al., 2008; Al-Zu’bi, 2008; Marshall et al., 2007).

Caruana and Vassallo (2003) expressed a need for research that studies the effect of FCPT on specific products and services. Surprisingly few studies have explored the effect of FCPT on psychological and behavioural outcomes concerning food. Some studies have analysed how FCPT mediates the effect of children's processing of information from food advertising. For example, parents who explain the purpose and nature of food advertising (consensual and pluralistic) and parents who restrict children's access to specific foods (consensual and protective) have children who are less influenced by food advertising and eat less advertised unhealthy food (Buijzen et al., 2008; Buijzen, 2009). Others have found parallels between conversation-oriented communication and positive attitudes towards consuming healthy food (Daniloski, 2011; Baiocchi-Wagner and Talley, 2012). Olsen and Ruiz (2008) found that teenagers in conversational families perceived having higher influence on their parent's dinner decisions compared to conformity families because they often discussed dinner options and health consequences with their parents. Conversation-oriented families have traditionally been described as concerned with both stating and explaining their opinions and actions to their family members (Koerner and Schrodtt, 2014). A study by Nørgaard and Brunsø (2011) challenged this traditional definition in regard to food-related research. They found that most families tended to discuss simple food-related issues with each other, such as stating preferences and opinions, but rarely explained their motivations and barriers behind their food preferences.

Researching how families communicate about food may increase the understanding of how children are socialised as food consumers. Thus, paper 2 applied FCPT to explore how family communication occurs in a home dinner context and to explore communication patterns that may be associated with children's food preferences. Previous studies show that parents who involve children in discussions, and encourage them to develop independent consumption perspectives (conversation oriented), have a better chance when it comes to guiding their children towards desired behaviours (Koerner and Schrodtt, 2014). Thus, understanding the process of FCPT in a food context may help us understand how caregivers can help children consume more healthy food.

Feeding practices

Parental feeding practices are also recognised as potential influencers on children's eating behaviours (Vollmer et al., 2015), and may promote learning by observation

(Rosenstock et al., 1988) Caregivers' feeding practices are considered as goal-directed behaviours with specific content that may reinforce parents' influence on children's food consumption (Vollmer and Mobley, 2013). As opposed to FCPT, which presents static values of the family members (Koerner and Schrodtt, 2014), feeding practices may change in different contexts (Vollmer and Mobley, 2013). Some of the most common practices discussed in the literature will be presented below.

Restricting children's access to some foods is a common practice among parents (Rollins et al., 2014; Hart et al., 2002). Studies have shown that such restrictions tend to increase preferences for the restricted food, and may lead to overeating when the food is available later (Birch et al., 2003; Rollins et al., 2014; Benton, 2004; Blissett and Fogel, 2013; Birch et al., 2007; Larsen et al., 2015b). Interestingly, children whose parents tend to use restriction are more likely to eat unhealthy foods, despite their parents' healthy feeding goals (Kiefner-Burmeister et al., 2014). This can be explained by the study by Blissett and Fogel (2013), which emphasises that restriction has two forms: one where parents do not purchase unhealthy food, and therefore, such food is not available at home, while the other is when parents who buy and store unhealthy food in their home with their children's knowledge. Children belonging to the latter group may feel the restriction more directly than the former group.

Rewarding children when they perform desired behaviours by giving attention and verbal praise or offering non-food rewards, such as stickers and toys, is reported to increase children's willingness to try unfamiliar foods (Hertzler, 1983; Horne et al., 2011). On the contrary, use of food rewards, such as giving a child dessert for finishing their meal, tends to increase children's preference for foods used as reward and decrease preferences for the targeted food (Larsen et al., 2015b). Food rewards have been associated with binge eating and bulimic symptoms as the child gets older, possibly due to the mixed signals children receive about what role that food should play in their lives (MacBrayer et al., 2001; Puhl and Schwartz, 2003). Parents who encourage their children to eat healthy foods, but at the same time, reward good behaviours with unhealthy food, may teach their children that some foods are good for you, and that unhealthy food can be earned by behaving well (Puhl and Schwartz, 2003). Birch et al. (1980) further emphasise that food rewards can give the child the impression that the targeted food tastes so bad that they need a reward for eating it.

Pressuring children to eat food they do not like, or to eat more food than they want to, tends to create aversions for that food (Sleddens et al., 2014). This kind of practice has been found to teach children to focus more on the external rather than the internal signals of hunger and satiety, making it difficult to self-regulate their energy intake (Larsen et al., 2015b). Studies on adults who have experienced pressure to eat food in childhood (Brink et al., 1999; Puhl and Schwartz, 2003) indicate that such practices are associated with obesity in adulthood, while studies with children have not shown associations with children's food intake and BMI (Larsen et al., 2015b). Larsen et al. (2015b) suggest that this phenomenon may be explained by scenarios where parents of young children have stronger control over their children's dietary behaviour, and subsequently, BMI development, compared to older children and adolescents.

Argumentative practices have been reported as another feeding practice applied by parents (Orrell-Valente et al., 2007; Khandpur et al., 2014). Parents tend to use arguments based on food quality (e.g. tasty or healthy) and quantity (e.g. too little or too much) to guide their children's food choices, while children use the same arguments to convince their parents to change their position (e.g. 'The food is not tasty') (Bova and Arcidiacono, 2014). Such practices have been found to make children eat more food than they would normally eat, and may disturb their innate capacity to regulate their energy intake (Orrell-Valente et al., 2007). Using *rules* for meals have been found to help children to know what to expect and prepare for the interactions that are about to take place during the meal (Mita et al., 2015). Rules may, therefore, work as a security for them and contribute to a positive emotional tone during meals.

Disguising healthy food in dinner dishes, such as hiding vegetables in purees and pizza sauces, has been promoted by Spill et al. (2011) and several chefs (e.g. Lapine, 2007; Oliver, 2014) to make children consume more healthy foods. Such practice is more likely to be used by parents of neophobic children and children with unhealthy diets (Russell et al., 2015). Peters et al. (2014) argue that such practices may limit children's opportunities to become familiar with the flavours of healthy and nutritious foods, and may not encourage children to develop preferences for and actively choose healthy options when they are able to make their own food choices. Another practice that enhances children's food acceptance is to provide *positive mealtime environments* to foster a happy, relaxed atmosphere with

warm group interactions during meals (Hertzler, 1983; Mita et al., 2015). Involving children in meal preparation has been suggested as a strategy to provide such environments (Mita et al., 2015).

Learning is assumed to occur if reinforcements are used (Ekström, 1995). Research on parents' reinforcing feeding behaviours has largely been conducted as experiments with a limited set of feeding behaviours, such as reward, restriction and control (Russell et al., 2015). Thus, paper 2 of the dissertation explored how parents' reinforcing behaviour, conceptualised as feeding practices, may be associated with children's food preferences, and looked for associations between parents' feeding practices and FCPT in relation to arguments by Moschis et al. (1984). Moschis et al. (1984) found that parents with pluralistic patterns were more likely to use positive reinforcements, such as rewards, and that protective parents were more likely to use negative reinforcements, such as pressure, compared to other parents. Parents who emphasised consensual communication patterns were more likely to use both positive and negative reinforcements as well as presented children with arguments, which explain the reasons behind their behaviour. Since laissez-faire parents do not communicate much with their children, they were assumed not use reinforcements. By studying these concepts in a home dinner context, the purpose was to explore whether Moschis et al.'s (1984) assumptions hold across different contexts. Considering that feeding practices may change in different contexts (Vollmer and Mobley, 2013), the assumption was that some of the associations that Moschis et al. (1984) made might be rejected. This dissertation is probably the first to explore how parents' feeding practices are related to the families' communication orientation.

Time stress coping strategies

Managing demands from both work and family life makes many parents feel time pressured and stressed (Beshara et al., 2010). Several studies have reported that experiencing time stress often gives parents less time to plan and prepare meals for their family, which often leads to unhealthy food consumption (Beshara et al., 2010; McIntosh et al., 2010; Neumark-Sztainer et al., 2012; Bauer et al., 2012; Jabs et al., 2007; Brown et al., 2010; Devine et al., 2006). *Stress* arises when the demands of a situation exceed an individual's ability to cope with and resolve the problem (Michels et al., 2012). Thus, such feelings may imply low levels of self-efficacy (beliefs about one's personal abilities in specific

settings), a central concept within social cognitive theory (Bandura, 1998). Stress can be categorised as acute stress, which can be unpredictable and uncontrollable conditions perceived as life-threatening or traumatic (Koolhaas et al., 2011), or chronic stress, which can be provoked by daily annoyances and minor hassles (Michels et al., 2012). Experiencing *time pressure*, the feeling that one does not have time to do everything one needs or wants to do, can be a source of chronic stress (Beshara et al., 2010; Jabs et al., 2007). Research has shown that chronic stress involves prolonged exposures to stress hormones, particularly cortisol, which is important for regulating appetite (Torres and Nowson, 2007). It is estimated that about 70% of all people have high production of cortisol when under chronic stress, and therefore, tend to eat more food, especially high in fat and sugar (Balantekin and Roemmich, 2012; Groesz et al., 2012; Adam and Epel, 2007). The explanation for these preferences is that fat and sugar tend to target the brain similar to opiates and gives an inexpensive and easy form of short-term pleasure and relief from negative feelings of stress.

Stress coping is an automatic, voluntary or involuntary process that people perform to manage stressful demands and emotions generated by stress (Carver and Connor-Smith, 2010). Paper 3 in this dissertation uses the term '*food coping strategies*' to describe behaviours that parents and children performed to manage stress caused by time pressure and to explain what consequences their strategies may have on their food consumption (Devine et al., 2006). Reported food coping strategies by parents are speeding up meal preparation (e.g. cooking convenience food), planning meals (e.g. cooking more on days off and using leftovers on busy days), skipping meals, engaging one's partner or children in cooking, eating take-out food, individualising meals for different family members, multitasking (e.g. doing house chores while dinner is cooking) and eating at different times than other family members (Devine et al., 2006; Jabs et al., 2007; Devine et al., 2009). Some of these strategies have been argued to be less efficient for dealing with time stress, and rarely give parents a sense of coping and control and may even make them feel guilty or dissatisfied about their food choices (Devine et al., 2006).

We are not aware of any other studies that have researched children's food coping strategies when they experience time stress. Previous reports indicate that children tend to use more distraction and avoidance coping strategies in response to *general psychological stress* than adults do (Chen and Kennedy, 2005) since they have less developed cognitive

abilities and resources to deal with stress compared to adults and adolescents (Michels et al., 2014). A study by Michels et al. (2014) found that young children (aged 6–8) tend to cope with stress by being more physically active compared to older children (aged 9–11). This phenomenon may be explained by older children's obligations and priorities, such as schoolwork, and their tendency to use more sedentary coping strategies, such as watching TV or playing video games.

Time stress has mainly been associated with unhealthy food consumption. Studies with time stressed adults indicate that they tend to consume more unhealthy snacks, sugar-sweetened beverages and fatty fast foods, and are less likely to eat vegetables, meat and fish on a regular basis (Neumark-Sztainer et al., 2012; Bauer et al., 2012; Louis et al., 2009; Pocock et al., 2010; Oliver and Wardle, 1999). Similar results have been found in studies with children and adolescents experiencing general psychological stress. Psychological stress makes some children eat less food, while others eat larger quantities of food, eat when not hungry, eat more food high in fat and sugar and less fruits and vegetables (Michels et al., 2012; Michels et al., 2014; Jenkins et al., 2005; Cartwright et al., 2003). Psychological stress may also provoke emotional eating (response to negative feelings), external eating (response to sight and smell of food) and restrained eating in children and adolescents (Michels et al., 2014; Hou et al., 2013).

Some of the behavioural responses to stress are socially learned (Louis et al., 2009; Chen and Kennedy, 2005). Children who observe that their parents eat food when experiencing stress caused by time stress may learn that eating food is a way of coping with stressful situations (Michels et al., 2014). This dissertation builds upon the belief that the coping strategies parents apply for handling time stress may also work as a guide for children's independent food behaviours as they experience time stress. Thus, paper 3 of the dissertation explored the food-related coping strategies families apply when under time stress, along with the consequences of those strategies on their food consumption and their practices of sharing dinner as a family. The aim was to determine which food coping strategies were most likely to make family dinners either healthy or unhealthy and to identify suggestions for assisting families under time stress.

1.3 Methodology

This section will explain why a qualitative approach was chosen for the dissertation and describe the applied methods and procedure for analysis. Some ethical concerns for researching with children will be discussed at the end.

Consumer research within marketing literature has often excluded children from debates about consumption, and there are few studies using child samples (Marshall, 2010). Previous research has often used parents as informants for studying children's food-related preferences and behaviour. Yet, parents may not have full knowledge of their children's diet since many meals are consumed without the parents' presence (Hannon et al., 2003), limiting the validity and reliability of adult proxy reports (Kirk, 2007; Birch et al., 1996). The reasons for not conducting research with children have been two-fold: the belief that data obtained by children was unreliable, and the ethical concerns over the vulnerability to exploitation by researchers (Kirk, 2007). The UN Convention on the Rights of the Child, articles 12 and 13, state that children have the right to express their opinion in relation to questions concerning them, a right to be heard and freedom to seek, receive and impart information and ideas of all kinds (United Nations, 1989). This has been interpreted by researchers that children should be involved in research concerning them the same way as adults do (Kirk, 2007). Instead of conducting research *on* children, researchers are now beginning to research together *with* children. There is a growing trend to use child samples, interpretive approaches and projective techniques, which consider children as co-creators in the design and methods collecting information (Marshall, 2010; Brembeck and Johansson, 2010). There is a consensus that if researchers take ethical precautions and use methods that are adapted to children's cognitive level and expression skills, they may collect valid and reliable information from children (Kirk, 2007).

Most social scientists conceptualise childhood as being different not in terms of being a stage towards adulthood, but as being a different culture (Kirk, 2007). The difference between adults and children goes far beyond their developmental differences, different perspectives and constructions of the world. Thus, it is difficult, or even impossible, for adults to understand the world from a child's point of view. This has led to a request for more qualitative studies that work more inductively to promote children's own understandings and experiences with food (Barker and Weller, 2003; Chitakunye, 2012;

Marshall and O'Donohoe, 2010). Considering these arguments and the purpose of the dissertation to explore how children can be socialised as food consumers, this dissertation applied a *qualitative explorative design* (Ghuri et al., 1995). The main benefit of such an approach is flexibility and the possibility to gain new insights and understanding into a field with less prior knowledge. By applying such an approach, the aim was to understand the social world from the children's point of view (Grieg and Taylor, 2007).

1.3.1 Interviewing children in pairs

Interview is argued to be an advantageous method to access children's beliefs and experiences in a manner that fits their cognitive and linguistic competences (Grieg and Taylor, 2007). Interviews with children allows for free-flow of interactions, which enables the researcher to pick up on important issues by gentle probing and to discover what is most important for the child being interviewed (Grieg and Taylor, 2007). They are also considered as economical and effective approaches to promote children's views (Hill et al., 1996). One of the main disadvantages with qualitative interviews is that they do not generate quantifiable data that can be generalised to a wider population (Bryman and Bell, 2007). In research with children, interviews can be challenging to conduct because children may experience difficulties expressing their feelings and opinions readily in words, especially to strange adults (Hill et al., 1996). Young children may also be bored with verbal conversations. To overcome some of these challenges, interviews should be conducted in familiar settings, such as kindergartens and schools, and use materials, such as drawings and toys, which allows flexible adaptations to suit the children's cognitive and linguistic competence and may motivate them and reduce anxiety (Grieg and Taylor, 2007; Irwin and Johnson, 2005). Using interview guides may also help children concentrate on the interview situation (Einarsdóttir, 2007). Grieg and Taylor (2007) emphasise that interview questions for children should be phrased as open-ended questions.

Group interviews, or focus groups, preferably consisting of 5–6 children, are considered as beneficial for giving children confidence within the group and allows children to set the agenda (Grieg and Taylor, 2007). However, some children may feel more inhibited in a group than in a one-to one-interview, making some voices more heard than others (Hill et al., 1996). Researchers may also experience difficulties to tape record and transcribe group interviews (who is saying what?), and it may be difficult to note if he/she is leading the

group or merely observing (Grieg and Taylor, 2007). Individual interviews allows for more in-depth explorations of topics being studied than group interviews, but may make some children feel more reserved than in group settings (Hill et al., 1996). Owen et al. (1997) argue that interviewing children in pairs may be beneficial because children can help each other initiate ideas, ease the conversation progress and may reduce influence from the researcher. Based on these arguments, interviews consisting of two children were chosen as the methodological approach for paper 1. The anticipation was to benefit from some of the advantages associated with individual interviews (e.g. exploring children's food attitudes in depth), which were achieved, while limiting some of the disadvantages of group interviews (e.g. let every voice be heard).

In paper 1, interviews with 12 pairs of children (24 children in total) in the age group of 4–6 were conducted. The children came from two different kindergartens, one who attended the seafood intervention, 'Fiskesprell', while the other did not. An interview guide was used to make sure that the chosen concepts (attitudes, mere exposure and norms) were covered by data collection (see appendix 1). Most questions were open ended to allow exploration. To be able to compare answers from children participating in the intervention (high exposure of seafood) against children not participating in the intervention (low exposure of seafood), interviews were semi-structured (Bryman and Bell, 2007). Interviews were conducted in a closed kindergarten playroom. Children were allowed to take small breaks, playing with some of the toys present, and to tell stories and discuss each other's answers during the interview. The interviews lasted an average of 22 minutes.

1.3.2 Participant photo interviews with children and parents

The second purpose of this dissertation was to identify and analyse the advantages and disadvantages of using photo interviews while studying children's food attitudes and consumptions. This method was applied in papers 2 and 3 and more fully discussed in the methodological paper 4. Photo interviewing implies actively engaging children to take pictures of their surrounding environments, whereby pictures are used as a basis for conversation between the researcher and the child (Zartler and Richter, 2014). Visual research methods, such as photo interviews, are widely used within anthropology and sociology and in research with children (Zartler and Richter, 2014; Harper, 2002). They are based on the simple idea of inserting a visual prompt into a research interview to 'evoke

deeper elements of human consciousness that do words' (Harper, 2002:13). Such prompts may be produced by the researcher, the participant or external persons, and can be all kinds of visual images, such as photographs, drawings, art paintings, cartoons and advertising billboards.

It appears that few researchers have used photographic methods to study children's experiences with food (e.g. Chitakunye, 2012; Dennis Jr et al., 2009; Johansson et al., 2009; Lachal et al., 2012; O'Connell, 2013). These researchers share the belief that such methods provide deeper understanding of children's experiences with food and present many *advantages* for food researchers. Photographs may help children to reflect and verbalise their thoughts and to help them overcome the discomfort in being interviewed by an adult stranger (Zartler and Richter, 2014; Banister and Booth, 2005; Cappello, 2005; Clark-Ibáñez, 2004; Einarsdóttir, 2005; Epstein et al., 2006; Harper, 2002). Photographs may help separate fantasy from reality and keep children's attention during long interviews (Einarsdóttir, 2007; Punch, 2012; Johansson et al., 2009). Participant photo interviews are considered as a fun and user-friendly approach that involve children as co-researchers, both during data collection and primary analysis (Dennis Jr et al., 2009; Einarsdóttir, 2007; Epstein et al., 2006; Jorgenson and Sullivan, 2009; Marshall, 2010). Photographs taken by children allow an insight to children's private spaces, which would be difficult to capture using traditional methods (Chitakunye, 2012; Jorgenson and Sullivan, 2009). In addition, photographs of children's meals may provide more valid and reliable data about children's dietary intake (Small et al., 2009), and may evoke sensory aspects of food (Justesen et al., 2014; O'Connell and Brannen, 2013; Power, 2003; Harris and Guillemin, 2012).

Some of the *disadvantages* that have been reported about photographic approaches for children are that researchers do not have control of who actually takes the photographs (Smith et al., 2012). Photographic approaches may also evoke intimate and sensitive information (Clark-Ibáñez, 2004; Zartler and Richter, 2014; O'Connell, 2013). Children may also be more concerned about producing a 'nice picture' either by arranging objects before taking a picture (Johansson et al., 2009), or avoiding taking photos of people or situations that reflect negative experiences (Smith et al., 2012). Photographic methods may be a time-consuming and costly methodological approach (Clark-Ibáñez, 2004; Punch, 2012).

Twelve families with 7 girls and 5 boys, aged 7–8, were recruited through the Norwegian after-school programme, SkoleFritidsOrding (SFO) (Tromsø municipality, 2014). Interviews with children were conducted in a closed classroom at SFO, while interviews with parents were conducted in their home. Two short interview guides were prepared, one for interviews with children and one for parents (see appendix 2 and 3), to cover aspects of food preferences, FQPT and feeding practices. The interviews may be described as unstructured to allow flexibility and exploration of the theories' role on children's food preferences (Bryman and Bell, 2007). Since the photographs were taken by the children, discussions with them were mostly led by the images appearing in the photographs and what the children narrated about them. Interviews with parents started by asking them to describe a typical dinner in their home, which gave prompts to discuss dinner routines, feelings about family meals, family discussions and the food they consumed for dinner. Parents viewed their children's photographs at the end of the interview to gain their understandings of the images. Interviews with children had an average duration of 48 minutes, while interviews with parents lasted, on average, 62 minutes. Totally, 408 photographs were submitted to the study, giving an average of 34 photographs per child.

1.3.3 Analysis of interview material

All interviews conducted for the dissertation were transcribed verbatim and read to check transcripts for accuracy against voice recordings. Major topics as well as confusing and conflicting data were discussed with the supervisors throughout the analysis process. All data was analysed by qualitative content analysis. This is a 'subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns' (Hsieh and Shannon, 2005 :1278). Since papers 1 and 2 used established theoretical frameworks to explore their role on children's food attitudes and preferences, the process may be described as deductive (Blaikie, 2007). Thus, a *directed* version of qualitative content analysis was considered appropriate to explore the aim of the papers (Hsieh and Shannon, 2005). This was done by first identifying the pre-determined themes and patterns in the material, such as mere exposure, norms, the different communication patterns within FCPT and the most known feeding strategies. During this process, some new themes related to the theories emerged. These emerging themes were vital to explore the concepts' role on children's food evaluations. For paper 1, data between the two

kindergartens was compared by making two sheets, one for each kindergarten. The sheets contained an index with the pre-defined themes, emerging themes and illustrative quotations from the interviews (Ritchie et al., 2005).

While analysing data for paper 2, information about time stress and how it affected the families' food consumption emerged in almost all interviews. Since this was not something that was initially aimed for investigation, data for papers 3 and 4 was obtained through an inductive research strategy (Blaikie, 2007). Thus, a more *conventional* version of qualitative content analysis was used for papers 3 and 4 than for the other papers (Hsieh and Shannon, 2005). There were no pre-defined themes since all codes and themes emerged during the analysis process. While data for paper 1 was analysed manually, all transcripts, field notes and 259 of the 408 photographs collected for papers 2 and 3 were analysed by using Nvivo 10 qualitative data analysis software (QSR International, 2012). By the help of Word Frequency Function and Text Search Queries in NVivo 10, the most mentioned foods and dishes could be explored to identify and create an understanding of children's preferences. The use of Nvivo 10 was particularly useful since it made it easy to conduct search and carry out comparisons for the large amount of data.

1.3.4 Ethical precautions for researching with children

Studies in Norway that collect direct or indirect personal information need to be registered and approved by the Norwegian Social Science Data Services (NSD, 2013). Data collection for paper 1 did not involve any personal information of the children, and was therefore, not registered at NSD. Papers 2, 3 and 4 collected information such as names, addresses, parent's income and education level, and were therefore registered and approved by NSD prior to any contact with SFO and the families. All data collection was further guided by recommendations from the Norwegian Research Ethics Committee (NESH, 2010) and other published literature on research ethics concerning children (e.g. Alderson, 2004; Davis, 2010; Grieg and Taylor, 2007; Kirk, 2007).

There are three main ethical issues that need to be considered when doing research with children: power relations, informed consent and confidentiality (Kirk, 2007). Researchers need to be aware that the unequal *power relations* that exist between children and adults in most societies may be duplicated in the research process. Considering that research with children younger than 16 years normally requires consent from their

guardians (NESH, 2010), children may feel that both guardians and researchers coerce them to participate in research. Such imbalance may limit the children's will to refuse to participate in a study, to express their own views and may lead to withdrawal during the research process. Based on recommendations from Kirk (2007), the author of this dissertation took several precautions to manage the power differentials and to assure that children's participation was voluntary: there was use of methods that allowed children to feel part of the research process and gave them the maximum opportunity to provide their views. Their willingness to participate was checked by informing and asking for their consent at several stages of the research process. They were also informed how they could decline to participate or answer particular questions. Children being interviewed for papers 2, 3 and 4 were told that they could demand that some of the photographs be deleted or excluded from the study. Kirk's (2007) recommendation, to give children control over the tape recorder, was not followed since it was expected to disturb the progress of the interviews. Children were rather told how the recorder worked and asked if it was all right to record the interview. Children were allowed to listen to their voices in the recorder after the interview was finished.

Children have often no experience with meeting scientists and know nothing about scientific research (Davis, 2010). Researchers therefore need to make sure that children receive *information* about the study, which they can understand, and that they have the competence to give their *consent* (Kirk, 2007; Grieg and Taylor, 2007). There are no legislations or ethical guidelines that state when children below 16 years are considered as competent to consent to research (Backe-Hansen, 2009; NESH, 2010). Suggestions have varied from 14 years (Wendler and Shah, 2003) to as young as 2 years (Twycross et al., 2008). Dorn et al. (1995) argue that children who have collected data for the study may be more competent to understand what the research is all about, and thereby be more informed to consent. Thus, all children interviewed for the dissertation were considered as competent to consent to research and were therefore informed about the study and asked for their consent. Parents of all children interviewed for this dissertation were informed about the study and asked for consent before the children gave their consent to participate. Since children interviewed for paper 1 were assumed to have no or limited reading skills, information about the study was only given orally. Doing this orally made it possible for

children to ask questions if they had difficulty in understanding any of the information given. Prior to data collection for papers 2, 3 and 4, children were first orally informed about the study and later handed a simple clear leaflet, based on advice from Alderson (2004), presented in appendix 4. It was made of an A4 sheet folded into an A5 leaflet to make it easy to read. A first draft had been tested with four children to get their critical views and to make potential changes to the leaflet. A detailed description of the information letters and how we ensured children's informed consent for research is presented in a previous paper (Alm and Olsen, 2013).

Confidentiality is especially problematic in studies with children since children may reveal information that suggests that the child or other children are 'at risk' (Kirk, 2007). Even if all information is treated as confidential, researchers cannot guarantee complete confidentiality due to their obligation to pass on information if a child is 'at risk'. In addition, confidentiality is an important issue for research that collects aspects from several family members (Kirk, 2007). Interviewing parents and children together or separately in cramped housing situations may limit children's confidence to disclose certain information. Precautions to protect the confidentiality and build trust with children being interviewed for paper 1 included spending two days in each kindergarten as part of the regular staff (Clark, 2010). This was not the case for the other papers since children were older and anticipated to be more used to unfamiliar adults. All children were guaranteed that no information given to the researcher would be disclosed to their parents, and that published information from the study would not reveal the child's identity. Children interviewed for papers 2, 3 and 4 were told that photographs would only be shown to the parents with no further explanation on what the child had told about them. How information about children 'at risk' would be treated by the researcher was presented in the first draft of the information leaflet, but later excluded since children had difficulties understanding the meaning. This later proved to be unnecessary since none of the children provided such information.

(References at page 140).

PART 2: PAPERS

Paper 1

Alm S, Olsen, SO. (2015) Exploring seafood socialization in the kindergarten: An intervention's influence on children's attitudes. *Young Consumers* 16(1): 36–49

Paper 2

Alm S, Olsen SO and Honkanen P. (2015) The role of family communication and parents' feeding practices in children's food preferences. *Appetite* 89: 112–121.

Paper 3

Alm S, Olsen SO. (2015b) Coping with time pressure and stress: Consequences for families' food consumption. Submitted to *Journal of Consumer Policy*

Paper 4

Alm S, Olsen, SO. (2015c). Participatory photo interviews for exploring children's food preferences. Submitted to *International Journal of Social Research Methodology*

2.1 Exploring seafood socialisation in the kindergarten: An intervention's influence on children's attitudes.

2.2 The role of family communication and parents' feeding practices in children's food preferences

2.3 Coping with time pressure and stress: Consequences for families' food consumption

2.4 Participatory photo interviews for exploring children's food preferences

PART 3: MAIN FINDINGS, CONTRIBUTIONS AND IMPLICATIONS

The main purpose of the dissertation was to explore how children are socialised as food consumers. A secondary purpose was to explore the use of participatory photo interviews in researching children's attitudes and behavioural patterns within a food context. The dissertation addressed four research questions, which explored the role of mere exposure and norms in children's attitudes to seafood (RQ 1), the role of family communication and parent's feeding practices in children's food preferences (RQ 2), the role of coping strategies to time stress in children's food consumption (RQ 3) and the methodological advantages and disadvantages of participatory photo interviews in exploring children's dinner preferences (RQ 4). In the following, findings from the four papers will be presented to provide answers to the dissertation's research questions. Several theoretical and practical implications will be presented in each section to give children's caregivers and policy makers' advice on how they may help children practice healthy food behaviours. Methodological and ethical implications will be given in section 3.4. Some general limitations of the dissertation and suggestions for future research will be discussed at the end.

3.1 Mere exposure and norms' role on attitudes

Paper 1 (Alm and Olsen, 2015) explored the influence of mere exposure and norms promoted by preschool teachers on children's attitudes towards seafood. In addition, it discussed questions regarding children and their parents' attitudes and seafood consumption at home. The paper explored attitude differences between children participating in the seafood intervention 'Fiskesprell' (high seafood exposure) and children not participating in the intervention (low seafood exposure). The framework of Aikman et al. (2006) was used to explore children's attitudes to seafood.

Findings indicated that most children, irrespective of their participation in the intervention, expressed positive attitudes to seafood. Even though some children responded negatively when fish was discussed, many of them mentioned seafood dishes, such as fish dumplings and fish au gratin, as one of their favourites. The study confirmed the assumption that children tend to use affect as foundation for their food attitudes (Borgers et al., 2000; Lumeng et al., 2008), referred to as positive and negative affective associations by Aikman et al. (2006). Good taste was the main reason for positive affective associations towards

seafood, confirming the findings of Szczesniak (1972), while bad smell and unattractive appearance were reasons for negative affective associations. Most children could describe general sensory qualities, such as appearance, flavour and smell, but had problems describing texture and more specific sensory qualities, such as saltiness. In the study by Honkanen et al. (2004), the smell of fish and finding fish bones often led to negative attitudes, but children interviewed for paper 1 did not seem too concerned about this. Paper 1 also found that children who attended the seafood intervention used more abstract cognitive associations (Aikman et al., 2006) by describing seafood as healthy, compared to the other children. This was expressed by beliefs that eating seafood made them strong and healthy. Thus, the attitudes of children not participating in the intervention were less evaluative compared with those children who had high seafood exposure. Children with low seafood exposure relied more on general sensory qualities such as the taste of seafood than abstract cognitive associations. Children with high exposure to seafood also described a larger variety among seafood dishes as their favourite food compared with the other children. Thus, the intervention group tended to have more fish lovers than the other group (Honkanen et al., 2004).

The most interesting finding from paper 1 was the importance of teachers eating together with the children. The findings indicated a stronger socialisation effect from parents than preschool teachers, irrespective of children's participation in the intervention. Since teachers and children usually did not eat together, children were not able to learn by observation that teachers liked to eat seafood (descriptive norms). Thus, socialisation from preschool teachers only included subjective norms.

3.1.1 Theoretical contributions and practical implications

Some theoretical contributions and several implications can be drawn from paper 1. At a theoretical level, the application of Aikman et al. (2006) information bases proved to be a promising approach to explore children's food attitudes. The findings indicated that high exposure of seafood had a particular important role for children's abstract cognitive associations. Even though cognitions are not that important for young children's attitudes, they may be more influential as they grow older, and should therefore be subject to research. Children's challenges while describing texture and more specific sensory qualities may be explained by the fact that the children were dependent on their memory to answer

interview questions since the study did not involve actual food tasting. In addition, it may be particularly difficult for young children to express such associations. Research using the information bases by Aikman et al. (2006) should therefore involve actual food tasting to evoke children's attitude associations to specific food products, not just seafood in general.

The theoretical distinction between subjective and descriptive norms (Pedersen et al., 2015) was found to have an important role in understanding how children's food attitudes may be influenced by their caregivers. Without such distinction, it would have been difficult to understand how important it is that caregivers have meals together with the children in order to be strong role models for children's attitude formation. Thus, researchers are encouraged to apply such dual approach when researching social norms role on food attitudes.

Paper 1 also laid the foundation for several practical implications that may be useful for caregivers and policy makers planning food interventions for children. The role of mere exposure of children's attitudes implies how important it is to make healthy food options frequently available both at home, kindergartens, schools and child care centres, such as SFO. Children's negative attitudes to seafood, but positive attitudes to particular seafood dishes, indicated that children should be taught the names of the ingredients in meals, such as 'cod' instead of the generic word, 'fish'. If such distinctions are not done, children's expressions of negative attitudes to seafood may cause caregivers to believe that children do not like any seafood dishes. Children should be encouraged to eat food because it is tasty, but also taught how food affects their bodies (e.g. makes them strong).

3.2 Communication and role of feeding practices' role in preferences

Paper 2 (Alm et al., 2015) explored how family dinner-related communication occurs and how parents' feeding practices might be associated with children's food preferences. Similar to findings on attitudes from paper 1, and other studies on preferences (Wiggins, 2014; Zeinstra et al., 2007), children's *preferences* were mainly guided by affect, expressing their preferences with emotional terms such as 'love' or 'hate', 'like' or 'dislike'. Children explained that taste was the main driver for preferring food, confirming the study by Holsten et al. (2012). Taste seemed to be more decisive than texture for these children aged 7–8

years, which contradict arguments of Zeinstra et al. (2007). Children in this study often refused to eat dishes with bitter taste or disliked textures. The texture of vegetables was particularly important for children's preferences. Children expressed a preference to raw and lightly cooked vegetables, a finding that corresponds with those of previous studies (Baxter et al., 1998; Szczesniak, 1972).

The most preferred dishes was pancakes and taco, something that confirms findings by Honkanen et al. (2004) and Zeinstra et al. (2007). Few dishes were mentioned as less preferred. Children were more concerned about specific ingredients or parts of the dish, such as potatoes, unions and tomatoes, which could lead to refusal of the whole dish or specific ingredients in the dish. One of the most interesting findings and contribution of paper 2 was the children's aversion towards mixed food and their wish to keep ingredients separate on the plate. No studies have probably had similar findings. As a theoretical issue, this phenomenon was interpreted as a need for control; the children wanted to know what they ate and to make their own evaluations of the food. Another interesting finding was that children seemed to prefer food when they were given a choice. As an example, one of children's favourite dishes, tacos, was always served in separate bowls, giving them the opportunity to choose what they put in their taco shell or tortilla wrap. This tendency was interpreted as an effective strategy to make children feel autonomic and enhance food preferences, something which is supported by other researchers (e.g. van der Horst, 2012; Altintzoglou et al., 2015).

Findings on *Family Communication Patterns Theory (FCPT)* indicated that most families were conversation-oriented. One of the most interesting findings and contribution to the existing literature (Koerner and Schrodtt, 2014) was that communication tended to shift from consensual on weekdays to pluralistic on weekends. On weekdays, the dinner menu was often a compromise between children's preferences and parents' intentions to provide quick, healthy dinner options for the family. To a greater extent on weekends, children were allowed to choose dinner alternatives for the entire family, something which confirms findings by Solér and Plazas (2012). The findings from paper 2 also indicated that parents employed multiple strategies to compromise with their children, such as cooking food the way children like, serving food in separate bowls and serving unusual food combinations to accommodate both parties' preferences. The most remarkable finding was

that serving food that appealed to children's preferences was sometimes more important than cooking food the parents themselves liked. Such findings illustrate different compromising strategies compared to previous research. For example, Russell et al. (2015) reported that parents tended to make separate meals to offer the child only preferred food. The interviewed parents rather chose to make one dish for the family even if they disliked the dish.

Paper 2 found that restriction of unhealthy dinner alternatives was the *feeding practice* most used to control children's diets. Like Blissett and Fogel (2013), the paper separated between indirect and direct restriction, arguing that restriction of food present at home may imply a stronger restriction effect than just refusing to buy food in the grocery store, which the children request. The parents sometimes used food rules and arguments, such as not being allowed to say they did not like the food before they had tasted it. Children seemed to understand the logic behind these rules and tended to give in to their parents' suggestions. Parents also argued that children should eat food because it was healthy, a strategy which has proven to be less effective since children's interest in health is limited (Berg et al., 2000; Honkanen et al., 2004). To a limited extent, parents sometimes used verbal praise and/or fruit as a reward if their children finished their meals, or used different kinds of pressure to make children eat more food than the children wanted. Such strategies may teach children to overeat and may evoke lifelong food aversions (Orrell-Valente et al., 2007; Gregory et al., 2011).

One of the most interesting findings on parents' feeding practices was that some parents admitted to disguising vegetables in dishes to increase their children's consumption of vegetables. This strategy is more likely to be used by parents of neophobic children and children with unhealthy diets (Russell et al., 2015). In paper 2, it was argued that modifying food is not the best strategy for improving children's preferences for vegetables since children do not know that they have eaten disguised food, thus, making it impossible to develop preferences for it. Another interesting finding of paper 2 was that children's participation in cooking dinner meals may enhance their preferences to the food they make. This argument is supported by Leech et al. (2014) and van der Horst et al. (2014). One of the children's favourites, tacos, were usually served on Fridays or on days when the family had time to prepare food together, which may create a happy, relaxed atmosphere (Sleddens et

al., 2014), and may serve as an example of how cooking together may help children develop preferences for healthy food.

Paper 2 also presented several interesting findings on the *relationship* between the different communication styles and parents' reinforcing feeding strategies. While Moschis et al. (1984) argued that positive reinforcements, such as rewards, are most likely used by pluralistic parents, paper 2 suggested that such practices are unnecessary to use in food contexts when practising communication patterns that emphasise open discussions of ideas without hierarchical primacy. Pluralistic communication was likely to occur on weekends, when children tended to decide what the families would have for dinner. This makes it meaningless to reward children's behaviour. Negative reinforcement, such as pressure and force, was argued by Moschis et al. (1984) as being most used by protective parents. This was contradicted in paper 2, since parents practising pluralistic and consensual communication were just as likely to use such practices. Paper 2 concluded that both communication patterns and feeding practices may change according to context, since parents expressed different feeding values and goals for their children on weekends and weekdays.

3.2.1 Theoretical contributions and practical implications

Several theoretical contributions and implications can be drawn from paper 2. Some new and interesting findings were discovered and may expand the understanding of children's food preferences. Researchers may benefit from researching children's preferences to separated food over mixed food, and preference to food they choose themselves. In addition, research on children's preferences to food dishes should focus more on preferences to specific ingredients of a dish. The application of FCPT proved to be a valuable approach to explore the social interactions between children and parents, and to understand the role of family communication in children's food preferences. The distinction both parents and children made between weekdays and weekends, indicated that contrary to previous research (Koerner and Schrodts, 2014), family communication may change according to context and topic of conversation, supporting suggestions from Caruana and Vassallo (2003) and Baiocchi-Wagner and Talley (2012). Families tended to practice consensual communication on weekdays and pluralistic communication on weekends, which may teach children to overindulge in unhealthy food on weekends. Such findings indicate

that FCPT should not be considered as a reflection of families' static values, but rather as dynamic values.

In addition, children's influence on parents' food preferences and choices may be stronger than previously anticipated (Bassett et al., 2008; Caruana and Vassallo, 2003; Nørgaard et al., 2007; Olsen and Ruiz, 2008). Such findings imply that future research should not consider parents as independent decision makers for their children's food consumption, but rather as highly influenced by their children. It also emphasises the importance of conducting research on and with children rather than using parents as the information source. Findings on feeding practices proved to be valuable in exploring how families' communication patterns may be expressed by behaviour. Since the families tended to be conversation-oriented, traditional reinforcements, such as rewards, pressure and force, for controlling children's diets were less prevalent. Thus, research on such feeding practices may be less relevant compared to other practices, such as cooking together and disguising food.

Paper 2 also provides several practical implications on children's caregivers. The findings on choice may imply that ingredients should be served in separate bowls or separate on the plate. Children should be encouraged to taste all ingredients without being forced. Findings on FCPT imply that caregivers should discuss with their children what to eat, but that they should be guided towards healthy options instead of being given a free choice on what to eat. The distinction between direct and indirect restriction implies that storing unhealthy food in the home and restricting children's access to it, should be avoided. Findings also indicated that children should be aware of what they eat. Thus, disguising novel or previously refused food in dishes is a less promising strategy to make children prefer healthy food ingredients. Finally, caregivers should aim to prepare food together with the children to enhance their preferences for the food they make together.

3.3 The role of time stress coping strategies in consumption

Paper 3 (Alm and Olsen, in review-a) explored which food coping strategies families applied when experiencing time stress and how it affected their consumption of shared home dinner meals. The findings indicated that experiencing time pressure and stress had an important role in families' food consumption. The most dominant explanation for time stress

was children's participation in sport activities, an issue which has only been discussed to a limited extent in the stress literature (e.g. Devine et al., 2006; Norman et al., 2015). Findings from paper 3 identified several coping strategies to time stress, which indicated varying influence on the families' food consumption. *Skipping dinner and eating unhealthy snacks* was a common coping strategy in response to time stress, which corresponds with previous research (Devine et al., 2006; Louis et al., 2009; Oliver and Wardle, 1999). The findings indicated that such strategy usually led to unhealthy food consumption, since eating snacks after sports activities sometimes spoiled children's appetite for supper, which may cause undernourishment (Marotz, 2011). Some families compensated for such strategy by cooking hot suppers that usually had low nutritional value.

The most frequently applied coping strategy in the study, *consuming convenience food*, confirmed findings in previous studies (Jabs et al., 2007; Devine et al., 2009). Such strategy seemed to have various consequences for families' food consumption, depending on how confident parents were in their cooking and planning skills. Parents' strategy to *avoid preference conflicts* with their children by serving food that children liked has been discussed in previous studies (e.g. Nørgaard and Brunsø, 2011). The findings indicated that parents preferred to serve food that their children preferred, rather than what is considered as nutritious food, an argument supported by the study of Spungin (2004). In paper 3, it was argued that such strategy was particularly unfortunate for parents who had low confidence in their cooking skills, supporting findings by Norman et al. (2015). Similar to previous studies (Beshara et al., 2010; McIntosh et al., 2010; Jabs et al., 2007; Devine et al., 2009), the study also found that that parents who took control of their family's meals and felt confident in their cooking skills tended to *plan* their family dinners and were more likely to serve healthy dishes compared to the other parents. Parents who rarely planned their family meals and did not feel confident in their cooking tended buy food on impulse, and rarely ate dishes with high nutritional value. Paper 3 integrated those previous findings (e.g. Devine et al., 2009; Nørgaard and Brunsø, 2011; Spungin, 2004; Norman et al., 2015; Beshara et al., 2010) in a context where time pressure and stress played an important role in the children's food consumption.

One of the most interesting findings of paper 3 was that some parents *engaged older children and grandparents in food preparation* for the family. This has only been discussed in

the time stress literature to a limited extent (e.g. Devine et al., 2006; Jabs et al., 2007). The findings indicated that this strategy may be promising to improve the diets of time stressed families partly because including children in cooking may make them more motivated to try different foods (van der Horst et al., 2014) and because it helps families schedule time between several members. Those families who applied such strategy were more likely to consume healthy food on busy days. Perhaps the most interesting findings from paper 3 were the findings on families' Compensatory Health Beliefs (CHB) and compensating behaviour. Parents' tended to *compensate* for feelings of time stress by differentiating between dinners consumed on weekends and on time stressed weekdays. Weekend dinners corresponded more with children's preferences compared to weekdays. It was important that dishes consumed on weekends were associated with togetherness and relaxation, a finding that corresponds with Devine et al. (2006). Families also increased their consumption of unhealthy snacks on weekends, which indicated that the families' total consumption of unhealthy snacks was probably too high, considering their strategy of eating snacks on time stressed days. Contrary to previous studies (Devine et al., 2006; Pocock et al., 2010), parents interviewed for paper 3 did not exhibit a bad conscience for their cooking on time stressed days. They rather used children's high activity level to justify their unhealthy cooking and children's unhealthy food consumption on time stressed days, which indicates the use of CHB. These findings were interpreted as a higher prioritisation of children's activities than cooking healthy meals for the family.

3.3.1 Theoretical contributions and practical implications

Paper 3 gives some theoretical contributions as well, especially the findings of parents' use of compensating behaviour and CHBs for their children's food consumption. These discoveries present novel information for both the time stress literature and to our understanding of CHB. CHB has traditionally been used to explain people's justification of their own unhealthy food behaviours (Radtke et al., 2014). However, findings from paper 3 indicate that such beliefs may be applied to other people than the ones promoting them. Such compensating behaviours should be subject to further research. In addition, the application of social cognitive theory (Bandura, 1998) in the dissertation implies that parents' confidence in their cooking and planning skills should be further researched using theory about self-efficacy (Bandura, 1998). Such a stance is supported by Aschemann-Witzel

et al. (2014), who found that parents who consumed larger amounts of fruit and vegetables were more likely to be characterised by higher levels of self-efficacy. Thus, research on self-efficacy is necessary to support health behaviours of parents.

One of the practical implications to children's caregivers that may be drawn from paper 3 is that skipping dinner and replacing dinner with unhealthy snacks or suppers on time stressed days should be avoided. Experiences of time stress may be reduced if caregivers are confident about their cooking and planning skills. Thus, caregivers should attempt to learn a variety of quick and healthy dinner recipes and make dinner plans prior to busy days. Other family members, such as children and grandparents, may cook dinner for the family on busy days to offload parents' duties. Children's high physical activity should not be used as an excuse to serve unhealthy foods. Active children have a particular need for nutritious food. Thus, healthy cooking should be a priority even on busy days.

3.4 Advantages and disadvantages of participant photo interviews

Research question 4 of the dissertation was explored by applying and analysing participant photo interviews with children and their parents. This was discussed in paper 4. One of the most important *advantages* of participant photo interviews was that photographs helped children remember what they had for dinner several days prior to the interviews (Harper, 2002). It was also easy for them to verbalise and reflect on the photographed dinner meals. By presenting the photographs to the researcher, children seemed empowered to take the lead and be comfortable being interviewed by an adult stranger (Banister and Booth, 2005; Cappello, 2005; Clark-Ibáñez, 2004; Einarsdóttir, 2005; Epstein et al., 2006; Shin Rohani et al., 2014; Zartler and Richter, 2014). Contrary to other methodological approaches, such as traditional interviews, photographs helped in separating fantasy from reality and in retaining children's attention (Einarsdóttir, 2007; Johansson et al., 2009; Punch, 2012). Children stated that participating in the study was fun and easy (Dennis Jr et al., 2009; Einarsdóttir, 2007; Epstein et al., 2006; Jorgenson and Sullivan, 2009; Marshall, 2010; Zartler, 2010). The approach allowed for getting insights into the children's 'private spaces' (Einarsdóttir, 2005).

Another major benefit with this method was the improved reliability of families' food consumption reports. Compared to, for example, verbal self-reporting, the photos are intended to reflect more objective or real meals consumption behaviour (Small et al., 2009). Using a digital camera was useful for recruiting families, for making the data collection easy for the children, for making the actual interviews more efficient and to conduct analysis in NVivo 10. Interviewing both children and parents was vital to facilitate deep explorations of children's food evaluations (Zartler, 2010). An important contribution to the methodological part of the dissertation was that photographs elicited interesting aspects of children's food evaluations, such as their preference for raw vegetables, the importance being in control of what to eat and being able to choose meal ingredients. In addition, the method was useful to discover ambivalent food preferences (Sparks et al., 2001).

The main *disadvantage* with participant photo interviews was that it gave the researcher less control of the data collection compared with more traditional methods (Pauwels, 2004; Smith et al., 2012). It was experienced that some photographs were taken or instructed by parents, which might have weakened the reliability of the data. This disadvantage also means that the researcher did not have control over whom the children photographed. Thus, some people appearing at the photographs, such as siblings and grandparents, had not given their formal consent to be a part of the study. Unlike children, parents were more inclined to bring up sensitive information (Clark-Ibáñez, 2004; O'Connell, 2013; Zartler and Richter, 2014), which may reflect an underlying agenda for participating in research. It was also experienced that the method was time-consuming, considering the time spent for recruiting participants and analysis of the data (O'Connell and Brannen, 2014).

3.4.1 Methodological contributions and implications

Participant photo interviews proved to be an appropriate method for inviting children as active participants in research and to discover new aspects of the theoretical part of this dissertation. In addition, talking about photographs that the children had taken proved to be useful for children's motivation, concentration, memory, verbalisations, reflections and comfort in the interview situation. The quality of the data and results (reliability and validity) was therefore strengthened compared to findings from paper 1 (Alm and Olsen, 2015). Thus, other researchers are encouraged to use similar methodological

approaches. For research on younger children, children's drawings may be more beneficial than photographs (Marshall and Aitken, 2006). Methods that give the researcher strong leadership over the data collection, such as traditional interviews and surveys, do not have the potential when researchers use words that children have difficulty understanding or have other understanding of (Grieg and Taylor, 2007). Research with children should therefore apply methods, such as photo interviews, which allow children to take more leadership and express their opinions and reflections in their own words. Experiences from photo interviews clearly proved that it is important that parents and children know their role and responsibility in research. For example, it should be emphasised that it is the children's responsibility to take photographs, while parents may remind their children to take photographs.

3.4.2 Ethical considerations and implications

Several ethical precautions were taken to ensure that children's voluntary and informed consent contributed to collection of reliable data for the dissertation, and may guide researchers who invite children into research. Registering the project at NSD helped consider which personal information was necessary for contacting the recruited families and to describe the sample in papers 2 and 3. Thus, projects collecting personal information should always be registered and approved by NSD (for Norwegian studies) or similar organisations. Engaging children in data collection through participant photo interviews was particularly important to limit the power relations between researcher and child (Kirk, 2007). Informing and asking for children's consent several times during the research process was important both for limiting power relations and for ensuring that children's participation was voluntary. The information leaflet presented in appendix 4 was a useful tool to make sure that children were properly informed about the study. The fact that children interviewed for papers 2 and 3 were informed about the study before their parents, may have contributed to the recruitment of motivated children (Zartler, 2010). These experiences imply that children should receive understandable and age-appropriate information about the study and be given the opportunity to consent to be subject to research, preferably at several stages of the study. During participant interviewing, it was discovered that children had taken photographs of people who have not given their consent to research. Children should

therefore have been instructed to ask for permission to take photos of external persons, such as siblings and grandparents.

Precautions taken to build trust and confidentiality with the children were useful for the dissertation as well (Kirk, 2007). Children should be assured that the information they give will be kept confidential and that they do not have to answer questions or withhold data (e.g. photographs). The choice of interviewing children and parents at different locations for papers 2 and 3 seemed important to protect children's confidentiality as well. Children were interviewed in a closed room at SFO without disturbance from other people, allowing for discussions of confidential information. Although some children were present during parents' interviews in the home, it did not seem to affect the parents' responses or revealing of sensitive information. Thus, to keep children's confidence, it may be beneficial to interview children and parents at different, but familiar, locations if children seem confident being separated by their parents. The use of digital cameras for the photo interviews made it easy for children and parents to delete photographs which they did not want to include in the study. Therefore, using digital cameras also helped to protect the confidentiality between researcher and informant.

3.5 Limitations and suggestions for future research

The previous sections have already touched upon several of the limitations of the dissertation, and the theoretical and practical implications have given suggestions to how such limitations may be avoided. Despite this, some general limitations should be discussed. Both data sets for the dissertation used small samples, and as a consequence, the findings cannot be considered as representative. More diverse samples could have shown larger differences in the findings. For example, data collection for paper 2 did not include any laissez-faire families and few families with low social economic status (SES). Future research on the applied theories and concepts should use larger and varied demographic samples, such as children/families from high and low SES, different countries, children in other age groups, and within other domains, not just food. Another limitation of the dissertation was that data collection and analysis was mainly conducted by one researcher, which may have

limited the exploration of the concepts and theories and the reliability of the findings (Zartler, 2010). Future studies should include several persons in such processes.

The applied concepts of the dissertation should not be considered as independent variables influencing children's food behaviours. Considering the overarching framework of the dissertation (social cognitive theory, consumer and food socialisation), the concepts should rather be viewed as having a reciprocal role on each other. As an example, caregivers' exposure to food may influence children's attitudes and preferences, but which food caregivers make available is also influenced by children's attitudes and preferences. Likewise, will family communication, feeding practices and coping strategies to time stress reflect which norms are important in the family. With such an approach, the dissertation does not explain the causal relationships between these concepts. Thus, other methods such as longitudinal studies and experiments are needed to confirm the dissertation's findings. In addition, the dissertation's limited use of social cognitive theory (Bandura, 1977; Ormrod, 2009) may have limited some of the dissertation's findings. For example, future studies may find that self-efficacy is an important concept to explore young children's food evaluations and behaviours.

Paper 1 discussed several disadvantages in interviewing of children in pairs. Children had difficulty retaining their concentration during the interviews. This may be due to the researcher's leadership of the interview process, distracting toys in the room where interviews were conducted and the young age of the children. Sometimes, the children had difficulty understanding the questions they were asked. In such cases, they were given examples, something that can be considered as leading (Kvale and Brinkmann, 2009). Some children gave contradictory and imaginative answers, which could cause false interpretations. Experiences from paper 1 imply that traditional interviews may not be beneficial for research involving such young children, since the method is dependent on the child's memories, cognitive level, communicative and concentration abilities. Thus, researchers aiming at studying children aged 4–6 years are advised to apply methods more adapted to the children's cognitive level, which may involve them more actively in the research process.

3.6 Concluding remarks

We need to acknowledge the important role social environment has on children's food consumption. Not only caregivers, but also policy makers, food procurers, food retailers, food marketers, kindergartens and schools need to be aware of their important role they have in children's food evaluations and consumption. Children's caregivers should make healthy food alternatives more available for children. It is important that they eat meals together with the children to function as positive role models, and that children are given control of what they eat. To be socialised as healthy food consumers, children need to be listened to, but also guided in the right direction without force and restriction. Future food interventions should aim at improving parents' cooking and planning skills, as well as engaging other family members in cooking healthy dinners. Researchers have a particular responsibility to apply research methods that promote children's own views of food to give proper recommendations to actors who form part of children's social food environments.

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Appendix 1: Interview guide (paper 1)

-Fortell først om diktafonen og spør om det ok å ta opp samtalen.

Generelle holdninger til mat og spesifikke holdninger til sjømat

1. Hva er det beste dere vet til middag hjemme? Hvorfor?
2. Hva er det verste dere vet til middag hjemme? Hvorfor?
3. Er det noen middagsmat som dere synes er spennende?
4. Er det noen middagsmat som dere synes er kjedelig?
5. Har dere bestandig liktså godt som dere gjør nå?
6. Hvor godt liker dere å ha kylling til middag?
7. Hvor godt liker dere å ha fisk til middag?
8. Er det noen slags fisk dere liker veldig godt?
9. Er det noen slags fisk som dere synes smaker stygt?
10. Hvordan lukter fisk? - Får dere lyst til å smake på den da?
11. Hvordan lukter kylling?
12. Hvor viktig er det å spise sunt?
13. Hvor sunt tror dere det er å spise fisk?
14. Hvor sunt tror dere det er å spise kylling?
15. Synes dere det er mye bein i fisken? Får dere ikke lyst å smake på den da?
16. Kan dere fortelle meg hvordan fiskepinnene smakte til lunsj i dag? Hjelpeord: sur, salt, fett, klissete, vått, tørt. (*Bare for Eksperimentbarnehage*).

Sosial påvirkning i hjemmet

17. Hva liker mamma å spise til middag?
18. Hva liker pappa å spise til middag?
19. Hva liker de ikke til middag?
20. Hvor ofte har dere fisk til middag hjemme?
21. Hvor godt tror du mamma synes det er med fisk til middag? Enn pappa?
22. Ønsker mamma at du skal spise fisk til middag? Enn pappa?
23. Pleier mamma og pappa å gi dere belønning når dere spiser opp maten deres?

24. Pleier mamma og pappa å gi dere belønning når dere spiser fisk til middag?

Generelle og spesifikke holdninger til maten i barnehagen

25. Hva er det beste dere vet til lunsj i barnehagen? Hvorfor?

26. Hva er det verste dere får til lunsj i barnehagen? Hvorfor?

27. Hva synes dere om å ha kylling til lunsj i barnehagen?

28. Hva synes dere om å ha fisk til lunsj i barnehagen?

29. Synes dere at dere får for mye fisk i barnehagen?

Sosial påvirkning i barnehagen

30. Spiser de voksne sammen med dere i barnehagen?

31. Spiser de voksne det samme som dere?

32. Liker dere å ha kjøkkenvakt og være med å lage maten i barnehagen?

33. Hvem av de voksne liker dere best i barnehagen?

34. Hva tror dere det beste vet å spise? Liker dere også det?

35. Tror dereliker fisk?

36. Tror dere..... ønsker at dere skal spise mer fisk?

37. Pleier de voksne å gi dere belønning når dere spiser opp maten/fisken deres?

38. Hvem av de andre barna liker dere best i barnehagen?

39. Hva tror dere det beste vet å spise? Liker dere også det?

40. Tror dereliker fisk?

41. Dersom dere fikk bestemme, hva ville dere hatt til middag i dag?

Appendix 2: Interview guide for children (papers 2, 3 and 4)

-Fortell først om diktafonen og spør om det ok å ta opp samtalen.

Generelt

1. Hvordan pleier middagsmåltidene å være i din familie? Hverdag og helg? Sted og tid?

Preferanser

2. Hvilken mat liker du å spise til middag? Favoritt? Hvorfor? Smak, lukt, tekstur, næringsinnhold, image, utseende
3. Hva liker du ikke å få servert til middag? Hvorfor?

Kommunikasjon

4. Hvem bestemmer hva dere skal ha til middag?
5. Pleier du å fortelle foreldrene dine hva du ønsker å ha til middag?
6. Hvordan pleier dere å handle inn middagsmat til familien? Hvem/hvor/når?
7. Pleier dere å skrive handleliste? Hvem bestemmer hva som skal stå på den?
8. Hvem lager middagsmaten hjemme hos dere? Pleier du å delta?

Forsterkning

9. Hva sier eller gjør foreldrene dine dersom du spiser opp det du får servert til middag?
10. Hva sier eller gjør foreldrene dine dersom du ikke spiser opp middagen din?
11. Er det noen mat som foreldrene ikke vil at du skal spise? Hvorfor?

Om metoden

12. Hva syntes du om fotooppgaven?
13. Hva syntes du om å bli intervjuet?
14. Hva synes du om at vi også intervjuer en av foreldrene dine og lar de se på bildene dine?

Appendix 3: Interview guide for parents (papers 2, 3 and 4).

-Fortell først om diktafonen og spør om det ok å ta opp samtalen.

Generelt

1. Hvordan pleier middagsmåltidene å være i deres familie? Hverdag og helg? Sted og tid?

Preferanser

2. Hvilken mat liker du å spise til middag? Favoritt? Hvorfor? Smak, lukt, tekstur, næringsinnhold, image, utseende.
3. Hvilken middagsmat liker du ikke å servere families? Hvorfor?
4. Hva er viktig for deg når du handler inn mat til familien din? (smak/bekvemmelighet/pris/helse).

Kommunikasjon

5. Hvordan pleier dere å handle inn middagsmat?
6. Opplever du konflikt mellom deg og barnet om hva dere skal ha til middag? Hvordan løser dere dette?
7. Pleier dere å lage handleliste? Pleier barnet å bidra på den?
8. Hvem bestemmer hva dere skal ha til middag? Pleier du å diskutere med barnet?

Forsterkning

9. Belønner du barnet ditt visst de spiser opp middagsmaten sin? Hvordan?
10. Hva gjør du visst barnet *ikke* spiser opp middagsmaten sin? Hvorfor?
11. Er det noen middagsmat som du oppfordrer barnet ditt til å spise? Hvilken mat? Hvordan oppfordrer du?
12. Er det noen middagsmat som du ikke vil at barnet skal spise? Hvorfor?

Om metoden

13. Hva syntes du om barnets fotooppgave?
14. Hvordan opplever du det at du får anledning til å se og kommentere barnets bilder?
15. Hvilken erfaring har du ved at barnet blir inkludert i en studie på denne måten?

Appendix 4: Information leaflet to children (papers 2, 3 and 4)



Vil du være med å forske på middagsmat?

For å få en frisk og sterk kropp er det viktig at man spiser riktig mat. For at barn skal spise riktig mat må de voksne få vite hvilken middagsmat barn liker. For å få svar på dette må man forske og det er forskere som undersøker slikt.

Siril er en slik forsker og hun kommer snart til din SFO. Hun ønsker å snakke med 10 barn og deres foreldre for å vite mer middagsmaten som barn pleier å spise.



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Fotografering

Dersom du blir med på undersøkelsen vil du få utlevert et digitalt kamera. I løpet av en uke blir du bedt om å ta bilder både hjemme og på handletur i matbutikken. Siril ønsker at du tar bilder av:

- ✓ Middagsmat som dere spiser hjemme.
- ✓ Personer du spiser middag sammen med.
- ✓ Personer som lager middagsmaten hjemme.
- ✓ En handletur i matbutikken.



1

Intervju

Etter at du har tatt bilder må du svare på noen spørsmål om mat som Siril vil spørre deg om. Dette kalles for intervju. Når du blir intervjuet møter Siril på SFO og sammen ser dere på bildene som du har tatt. Du vil bli bedt om å fortelle hva du har tatt bilder av og hvorfor du tok bildene. Siril vil også spørre om hvordan middagsmåltidene pleier å være hjemme hos dere og hvilken middagsmat du liker å spise. Siril vil ta opp intervjuet på en optaker.



Siril vil også komme hjem til deg en gang for å snakke med en av foreldrene dine. Siril vil la mammaen eller pappaen din se på bildene som du har tatt, men *ikke* fortelle hva du har fortalt i intervjuet på SFO. Kameraet som du har tatt bildene med får du i gave etter at du er ferdig med intervjuet.

2

Dokumenter og bilder

Det som du og mammaen eller pappaen din forteller Siril er viktig informasjon. Siril må derfor kunne skrive om undersøkelsen slik at flere kan få vite hva barn liker å spise til middag.



Når Siril senere snakker og skriver om undersøkelsen, vil hun alltid beholde navnet ditt hemmelig. Bilder som viser ansiktet ditt eller andre familiemedlemmer vil ikke vises.



3

Dersom du vil være med i studien må du huske at:

- ✓ Du bestemmer om du vil snakke med Siril.
- ✓ Du må si akkurat hva du mener. Det er ingen svar som er riktig eller feil.
- ✓ Selv om du er med i studien, må du ikke være med på hele intervjuet eller ta bilder du ikke ønsker.
- ✓ Vi kan ta pauser eller avslutte når du vil.
- ✓ Dersom du ikke ønsker å svare på alle spørsmålene gir du bare beskjed om det.
- ✓ Du kan be om at enkelte bilder ikke skal tas med i undersøkelsen.

Vil du være med? Sett kryss for ditt svar:

Ja

Nei

Ditt navn: _____

Vennlig hilsen Siril Alm.

Dersom du har spørsmål om undersøkelsen kan du kontakte meg:

Siril Alm, Nofima, Postboks 6122, 9291 Tromsø

Telefon: 77 62 91 39

E-post: siril.alm@nofima.no



4