

Master Thesis

The Multiple Insect

*“An explorative case
study of edible insects”*



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Now on with the show.

Abstract

The introduction of insects as a food item in the western parts of the world has been hailed as a possible solution to the question of how to make the global food system sustainable, as insects have been estimated to constitute as a possible source of sustainable animal protein production. There are over 2 billion people on the planet which on a daily basis consumes edible insects as a way of life. The introduction of the edible insect in the Western part of the world is met with fear and disgust, as the inherent food culture that resides, prevent the edible insects to make its way. Therefore this case study is set out to explore the different enactments of the edible insect within Copenhagen, Denmark, as to see if the insect can be enacted as a food item.

The empirical data is collected with the help of six different couples (three with children, three without) and is based on semi-structured interviews and the use of photo elicitation. The theoretical framework by Annemarie Mol's multiplicity theory has been applied in order to understand the different bonds, networks and realities the insect created within our informants. The couples were presented with five different products, all containing a form of insect, and pre- and post-interviews were conducted, to see if and how the edible insects are enacted.

Throughout our analysis and discussion, we have observed the edible insect become a multiple object, enacted through various actors, and created networks to other parts of the food spectra. We have also witnessed the insect create networks to gameshows, Disney movies, diamonds, travel excitements, negative associations and the list goes on. The case of the edible insect making its way into the kitchen of couples from Greater Copenhagen were not an easy task to succeed and were perhaps not meant to. A reassessment of how food is thought of is in need of a change, in order for it to triumph.

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Introduction

Insects. They have been around our planet even before the first humans walked its first steps here. And they will, without a doubt, be here long after the last step has been taken. The insect can and have divided the seas, as Moses did with the Red Sea, when leading the Israelites from the pursuing of the Egyptians. Even in this tale, the insects has its role, as three of the ten plagues that 'God' send towards the Egyptians, consisted of insects: lice, a swarm of flies and locusts - not exactly portraying the insects in a positive manner. Within the modern days, cravings for building larger and larger urban areas, the notion of insects is not always a positive one, and if ever stumbled upon, most likely associated with a pest or even a plague – as they were for the Egyptians. But without insects, the ecosystem as we know it will cease to exist, which will create even larger challenges than the one of the itzy bitsy spider, crawling up the wall (Yang & Gratton, 2014). The insect are treated as many things: as a plague in the old testament; as the bringer of life to our ecosystem; as the daunting crawler residing in your apartment block. It can also be a delicious meal; a crispy treat; and to some of us growing up in the 90's, it can be a dare at the center of a lollipop. Needless to say, the insect is a fluid object with different realities and enactments, it all depends on who and how it is presented.

There are over 2 billion people across planet Earth, that endeavor the insect as an eating, and even if that number is stable for at least a minute, the world's population are rapidly increasing by the second. The Food and Agriculture Organization (FAO) of the United Nations, estimate that the population of the world will exceed to over 9 billion people by the year of 2050, causing worries to how we are to feed all of us (van Huis, 2013). A cry out for a more sustainable food system has been hailed as one of the possible ways to succeed in feeding the world's rapid population growth, with radical changes to come. The EPA - *United States Environmental Protection Agency*, define the term of "sustainability" as the studies of how the natural system operates by remaining diverse and keeping the ecology in balance (EPA, 2016). The description is, perhaps a bit vague, but simplified, it means that *everything has to be in a symbiotic state in order to be completely sustainable*. When it comes to sustainable, whether its livestock or crops, it must be done without depleting the natural resources. It must be ensured that the natural assets, that suit the society best, are

enhanced through the farming. Natural control and bio-cycles has to be implemented, and for the agriculture to be fully sustainable, the farming has to be economically viable. This means, according to EPA, farmers must be able to afford their own production. Additionally, hopefully most important for a practitioner of healthy food systems (us), the products derived from the sustainable farmland, has to enhance the lifespan of the ones consuming the products (National Sustainable Agriculture Coalition). Some suggestions to the radical changes in our food systems, in order to feed all of us in a sustainable matter, include transitions in the current food consumption of the Western World. One suggestion goes, that by bringing down the meat consumption and replacing them with alternative protein sources that have a sustainable imprint towards planet Earth, in order to reduce the CO2 emissions and excessive use of water, which follows the production of livestock (Food and Agriculture Organization of the United Nations, 2009). Examples of these alternatives include plant- or fungus- based proteins as a substitute for animal products, harvesting the natural resources that are in abundance, such as seaweed, and introducing alternative new diets to a certain part of the world - such as insects.

Insects

The introduction of insects as a food item in the western parts of the world has been hailed as a possibility, as insects have been estimated to constitute as a possible source of sustainable animal protein production. The Wageningen University in the Netherlands is considered to be one of the frontrunners within the scientific approach to edible insects and entomophagy and has compiled an updated list of edible insects across the world. There are approximately 2111 species of insects in the world, which are considered edible for humans (Jongema, 2017). With such an abundant variety within species, there are plenty to choose from. It would seem that all we need to do, is to get started feasting on the critters.

Food

Food. What is considered food and how food is enacted, is up to the individual. As with the insect, food is treated as many things, than just food. If we look food up in the dictionary (which will not be a common thing within this project, as we are not too fond of static interpretations), you will find this definition: *"a material consisting essentially of protein, carbohydrate, and fat used in the body of an organism to sustain growth, repair, and vital*

processes and to furnish energy" (Merriam-Webster, 2018). However, for some, food is more than just energy, and even though a branch of us consider it as being fuel for the body, another branch of us consider the more hedonistic sides of food to be relevant. The distinction between the two, are of course not always a choice, and unfortunately some human beings do not have the luxury in life to always choose what to eat and even so, if to eat.

Culture

Food can be divided into cultures, as seen with the edible insects. We, in Denmark, have a great tradition when it comes to food. Open ended sandwiches (smørrebrød), the Nordic sushi (salt-cured salmon and herrings), and different traditions at whichever holiday is celebrated (roasted pork at Christmas, egg-salad at Easter, wheats at General Praying day and so on). Food means a lot to the Danish people. Several interactions with different cultures have been adopted, such as the pasta epidemic that spread across the country in the 70's-80's, and even the Japanese's version of raw fish swept across the country in the 90's. So how will the case of entomophagy play its part within this nation? Will every restaurant, fast-food store and supermarket start selling edible insects as a way to promote a more sustainable food system? And how will it be accepted?

As mentioned food can be a lot of things, but the question if insects will become a household item, we cannot say with certainty, thus it will be for the future to behold. However, we are exploring how the edible insect is taking its place among six different couples (from the Greater Copenhagen region) household's, to see which enactments and realities the small, (and new) food items will unfold. We will investigate whether or not our informant couples are ready to implement the insects as a food item, as seen with the other food items previously have in Danish households. Therefore a research questions, and several questions for the research process have been made in order to make sense of this project;

Research question

How are edible insects and insect based products enacted in an everyday meal practice within Danish households?

Questions for research process

- Can edible insects and insect based products be eatable within a Danish household on an everyday basis?
- Can edible insects and insect based products be incorporated in an everyday meal practice amongst couples with and without children, in Greater Copenhagen?
- How is the edible insect enacted and which realities does it create?
- Will the edible insect be met with limitations within a Danish households food culture?

Delimitation

Since this is a study of food and what can be constituted and accepted as a food, we will focus on that for the remainder of the project, though the realities of what it is perceived like by the informants, that willingly chose to participate in this project, will still be highlighted.

In this scope, we are delimiting this Master's Thesis to discuss some aspects, which are not of relevance. We delimit us from addressing the nutritional values of the insects. However, it is often used as an argument for entomophagy, therefore it will be included as suchs, when the topic is addressed. We are also delimiting us from entering the discussion of insects as being sustainable, other than what we have already touched upon. Sustainability of the insects as food are used as an argument for entomophagy, therefore it will be included as suchs, when the topic is addressed.

For this case study, informants are to test edible insects at own hand, in their own households in an explorative manner. Recipes, tips for preparation and the like are not provided to the informants, leaving the interactions of the products in the informants hands. During this, the informants are asked to photo-document their experiences with the products. Semi-structured interviews are done with the informants both prior and after their explorations with the provided products.

State of art

These sections will provide with some background information of topics, which will be of relevance for the analysis-sections. We will start of with *Aspects of food* go on to *Entomophagy* and has its end in *Food acceptance and rejection*.

Aspects of food

The following sections try to introduce *some* of the multiple aspects found in existing literature, that resides within the notions of food and meals, which can be of relevance for the further analysis. While we are sure that there are 1001 more ways, than what we will present to you here, we try to introduce of the most prevailing ones as seen within our informant couples. This is done in order to provide an understanding of current Danish eating patterns, why some prioritize to eat together in a busy day, how food can be fuel for some while having other meaning to others and multiple other aspects. This will further be of use, when it comes to the understanding of *if* and *how* insects might have its place in our informant couples food practice.

Functions of food

“...the great problems in understanding humans and food are to understand how humans, in the East and West, come to divide potential foods into the Yum and the Yuch” (Rozin, 1999, p. 27).

The many functions of food within a human's life are demonstrated by Paul Rozin (1999) where he utilizes the work of Leon Kass's book *“Hungry Soul”*, to illustrate that food is perceived, enacted and thought of in multiple ways. The quote illustrates perfectly that food is not just food. Simmel suggested (with good reason) that we all have to eat, in order to survive (Simmel, 1910; (Andersen, 2015)) - whether the food being eaten are insects or not. The food and meals we eat can serve with multiple purposes, each depending on how it is enacted. For some, food can serve as a mere biological function, in order for us to survive and food is considered a fuel to restore energy to the body and mind. Food can have a hedonic approach for the pleasure seeking body, where the food transforms into more than just fuel and energy. Food can also have social events and meaning linked to it, where social constellation takes center. Food can be a luxury in life, and for others it is a way of life that

touches every aspect considered. Food can be as simple and complex as it has to be, it is how and whom it has relations with by that defines the limit.

In a historic point of view, food has, amongst other things, been considered as medicine for the body in unbalance. In the early Greece (AD 129-216) it was thought that the human body relied on four fluids: *blood*, *choler*, *black bile* and *phlegm*. They all had independent objectives, but had to function together in order to create a wholesome symbioses within the body (Coveney, 2014). When illness or an unbalance interfered with the fluids, a rebalancing was necessary in order to regain a symbiotic state. The cure to this state was considered to come from food and drink, whereas food was considered to be the essence of life in every facet - if one had to live in symbioses, one had to eat and drink the correct matters. Food has also been seen as a way of status. In some cultures food have been, and still is, regarded as a way of presenting the identity of oneself. A distinction has been made between different cultures throughout history. In Europe during the Renaissance, a slim waistline was considered a sign of high social status, where some contrasts lied in parts of Africa and the Pacific regions, where a larger body would illustrate wealth and prosperity (Coveney, 2014). If we look at Japan, and the culture surrounding the Sumo wrestlers, food in plenty are needed to secure a fitting physique to compete, and the athletes are looked upon as idols because of their large corpuses. Pierre Bourdieu's (Bourdieu, 1984) research on the classes of French social life showed that certain social factions used food to communicate a sense of wealth. The "correct" choices of food, the proportions of the food and even the right accessories such as cutleries and plates, were all a way of showing a certain status. Bourdieu speaks of bodily habitus (lasting and changeable dispositions), as a basis for these choices and was enacted differently by each social class presence (Bourdieu, 1984). Distinctions can be drawn to the choices each individual have to make in today's food scene. An example of this is the choice between a burger from a fast food restaurant or the quinoa salad from the "vegan place around the corner". Each choice sends a signal to the world, whether it is intentional or not (Coveney, 2014).

Food can be enacted as a basic need to fuel the body with energy in order to cope with the necessities of the daily struggle. Food can be enacted as nutritional diet, consisting

of different macro- and micronutrients and are a biological need in order to function (Mol, 2012). For others, a more hedonic approach might be preferred, where the “functions” of the food might not be in the center, but the pleasure in the act of eating is. Preparation of the food is to some a mean of expression, in which the individual have a chance to find pleasure with both the making and the consumption of the food. The self-expression through the cuisine might be a purely aesthetic sense of how to prepare traditional fine courses (typically learned through culinary schools), or it might be an expression of belonging to a certain culture (Thompson & McDonald, 2012). A hedonic approach to food can be of an individual character but can also represent the culture of a certain country. Chandon, Wansink and Laurent (2000) lists a few perceptions of an hedonic approach to food; an emphasis on the taste of food; a preference for cultural eating practices; a longing for complex; cultural, elaborate and extravagant foods (Chandon et al., 2000). Hedonic cultures consider food as a deep cultural experience which can involve meaningful and complex preparation as well as the consumption of it (Wansink et al., 2002). Annemarie Mol (2012) suggests that the body is pleasure seeking, and if the goal is to lose weight, you must be able to overrule the desires of the craving body. In order to do so, you must make the “good choice” and put your mind in a certain state to succeed. However, this, according to Mol, is in contrast with the notion and advice of “enjoy your food”, where the pleasure seeking body is one that deserves to be cultivated and might not align with losing weight (Mol, 2012).

Cultural aspects of food

The culture around the Danish food scene has seen a turn towards more diversity than it was from 50 or 60 years ago. The Danish society have implemented spices, wine, vegetables not grown in Denmark, cheeses from around the world, and even whole cuisines from different countries have been applied. The Italian and French cuisine has been adopted since the late 70's, and a turn towards the Asian kitchen has swept across the nation within the last 20 years (Jacobsen, 1996). The cultural impact these other cuisines has had on the Danish food scene can be seen in dishes like *spaghetti-kødsovs*, *boller i karry* and sauce (Knorr) béarnaise, which have all have been adapted in Danish households as everyday dishes. As much as the Danish food scene might have changed however, some changes can be more difficult than others. When Japanese sushi was introduced in the common scene in

the 1990's to the Danish people, we did not adjust to it in the beginning. Here in Denmark, and the surrounding Scandinavian countries, we have a tradition of eating fish products such as marinated herring and gravad lax (cured salmon). What is similar between these products and sushi is that none of them are heat-treated - they are all in fact "raw". The Nordic traditional fish-dishes are even labeled as *Scandinavian sushi* by some (e.g. Snitkjær and Mortensen, 2012). Even if both the food cultures had some similarities (raw fish, both served on grains (rice or rye), both served with "a sharp" (sake or schnapps) both served with "spicy" toppings (wasabi or mustard) etc.), the adjustment did not come overnight. Snitkjær and Mortensen (2012) suggest that us Danes have acquired taste for certain food items and we connects them with holidays – when have you ever been to a *julefrokost* without either marinated herring or gravad lax? Sushi is being connected with being healthy, and while we do eat sushi in Denmark as well (even some supermarkets sell sushi), we mostly associate eating sushi with times for celebrations, with the colorful look making them look festive (Snitkjær & Mortensen, 2012).

As already mentioned in the Introduction, an estimated 2 billion people include insects as part of their diet, with most of them located in Asian and African regions. Here, insects are seen as food. In Denmark, and other Western countries, we do not have the tradition of regarding insects as being food. The materiality of the culture, of what we consider being food are widely different, depending on where you look.

Australian professor Elspeth Probyn (2011) shares similar notions on the cultures on eating kangaroo meat in Australia. While kangaroo meat has been eaten by the indigenous people for centuries, the "modern" Australian are not so keen on it. Kangaroo meat is often being associated with being pet food and not edible for humans and when you *can* buy the meat in the supermarkets it is often in the section with offal (meat waste from the butcher) – and right next to the pet-meat section. Kangaroo meat is something you feed to animals (Probyn, 2011). The same could go with the insects: (live) insects are something you feed animals (lizards and other reptiles), they are not seen as food for humans – the same way kangaroo meat are seen as pet food. As with the kangaroo meat, there are not many places that sell insects in the supermarkets in Denmark. Mostly it comes as salty crispy snacks, sweet soft snacks and crisp bread (knækbrød) – none of them, which are used as ingredients

in the kitchen. While it is possible to buy whole insects from internet based supermarkets (e.g. nemlig.com and dininsektbutik.dk), one would have to actively seek out the products. And of course, it is also possible to buy insects – dead or alive – at the pet stores, but with the possibility of creating notions, that insects is considered food for animals and not for humans. Probyn also mentions, among various other factors, that the kangaroo in Australia can be considered as something cute and cuddly, in the shape of *Skippy the Bush Kangaroo*, which is a character from an Australian TV-show. Skippy is a pet, a friend, you do not eat Skippy. Insects are not pets per say (off course they may be for some), but have been used as gimmicks and dares, as seen in various game shows such as Robinson, where they are commonly eaten raw (and sometimes alive), which makes you wonder: would you eat a raw (or alive) chicken? It has been argued that kangaroo meat is much leaner and healthier and a more sustainable source of meat, than the traditional beef or sheep meat (Probyn, 2011). The same notions are seen with the insects, which are widely marketed as being high on protein and being a sustainable source of protein and sometimes as an *alternative source of protein* (van Huis, et al., 2013).

Annemarie Mol (2010) gives a take on how the cultural aspect of food is in The Netherlands. Through her work at a Dutch home for elderly, she sought out to study the meal practices for the inhabitants. At the home, Dutch food, typically consisting of boiled potatoes, a selection of vegetables, meat and gravy, was being labeled as *ordinary* food and food from other cultures would be labeled *international* food, with no specifications to what that might refer to (Mol, 2010). What Mol seeks to point out, is that the relations between “food” and “culture” are different within the different realities. While the “classic” dish “spaghetti-kødsovs” might be inspired from *spaghetti bolognaise* and have some origin from Italy (we do not dare to go into regional specifications here), it might also have some Danish notions from the dish *millionbøf*, which is served with boiled or mashed potatoes (which is amusing, when the potato do not originate from Europe). Spaghetti-kødsovs cannot be said, with a 100% certainty, to origin from neither the dish *spaghetti bolognaise* nor *millionbøf*, but can be some sort of mixture, a bastard, of the two - and probably mixed with more notions than the two mentioned here. Thus food culture serves as a repertoire, and is not necessarily tied to specific groups of people or certain geographical areas.

Aspects of eating

In Denmark the culture around our food is created through an interaction with ingredients, tools, recipes, processes, rules, laws, values, traditions, ideas and knowledge (Jacobsen, 1997) The annual report “Madindeks 2017” from *Madkulturen*, which is an self-governing institution under the *Ministry of Environment and Food of Denmark*, has highlighted some of the characteristic tendencies within the Danish food practices of 2017, and one of the focal points within the food scene in Denmark, is that dinner is still the main meal of the day (Madindex, 2017). Often it is a hot meal, and this diversifies Denmark from the more southern cultures of Europe where it is more traditional with a hot meal at lunch, and a simple cold dish at dinner (though “Madindeks 2015” (Madindex, 2015) stated that rye bread with different toppings, is still the most popular meal to be served at dinner, just ahead of Pizza and Soup).

Aspects of meals

“If eating a food makes one become more like that food, then those sharing the same food become more like each other” (Fischler, 2011: 533).

Food can be transformed into meals. But what defines a meal? Might it be the time of the day, the food is being eaten? Is it the social interaction that defines a meal, not what is being eaten? Or perhaps it is eating more than one dish, which defines a meal. We cannot assume that there is one set definition, to *what* defines a meal. Olyersdorf et. al (1999; Meiselman, 2008) have given their take on what defines a meal, and include the following: 1: Time of the day (breakfast, midday and dinner), 2: Energy content (the meal must have a certain energy content), 3: Social interaction (more than one person present), 4: Food combinations (more than one food or a beverage), 5: Combined criteria (combination of the listed criteria) (Meiselman, 2008). If defining a meal, using some of the listed criteria, eating a piece of fruit might not be considered a *meal*, if there is required a minimum energy content as the definition of a meal. The same goes with eating alone; if a social interaction is required to define a meal, then eating alone cannot be defined as a *meal*. Mary Douglas (Douglas & Nicod, 1974; Meiselman, 2008) gives her attempt on framing a meal as: *“food eaten as a part of a structured event is a meal...”* (Meiselman, 2008, p. 14). As a part of a Nordics study of eating, Kjaernes (edt.) (2002; Meiselman, 2008) have divided eating events

into the following: Eating events, private (home) or public, individual (alone) or social. It produces four combinations where, meals can both be eaten alone in the private setting, meals can be eaten with others in a private setting, meals can be eaten alone in a public setting and meals can be eaten with others in a public setting. Here, meals are not defined by either content of nutrients, or time of the day, but gives a more loose take on defining meals. Meiselman argues that one cannot define what a meal is, on the few pages his article discusses it as *“that would require a book”* (Meiselman, 2008). Instead he presents *some* of the definitions that exist, and, throughout his article, use these as perspectives of what can be considered within different perspectives of meals. We do not conclude what defines a meal, but acknowledges that there might be different perceptions and interpretations to this, as illustrated in the above. This will be further explored upon in the next sections.

Aspects of meal practices

Meal *practices* have evolved through shifting times changing how we interact with food and the meals we share. According to German philosopher and sociologist Georg Simmel (1910; Holm, 2012), the meal constitutes as a social event, where we transform from being uncivilized to civilized, through a shared meal. For Simmel, the evolution of the meal has evolved from being a mere biological and animalistic need, transformed into human and civilized events in the course of the norms being set through human interactions. When we are eating together, we have to let some of our individual and bodily needs behind and act “civilized” and conform according to the cultural and social norms and customs being set (Andersen, 2015). Claude Fischler (2010) move beyond the meals, serving as events for the civilization of humans, moving the *common meal* towards *commensality*. He states, that shared meals can create commensality (Andersen, 2015) and that commensality both can be *inclusive* and *exclusive*; it can tie bonds within a group of people into a community and it can exclude those not taking part. Meals can be inclusive or exclusive and meals can create bonding (Fischler, 2011) and tie a family together (DeVault, 1991). Meals can serve as demonstration of power, upholding a hierarchy within a social setting (Fischler, 2011). Meals can also create conflicts, if the food being served, do not live up to the expectations of the diners or create guilt for those who serve the food (Ekström, 1991). A novel food as edible insects might divide or conquer the dinner table, it depends on how and if the food is accepted.

Modern meal habits are characterized by social structures and the framework within everyday life. In Europe it is still general for families to share one common meal a day (typically dinner) however, shifting changes in daily day activities influences the recurrent family meal to an extent. In Denmark a *three meal system* is dominant with three main meals: breakfast, lunch and dinner. The three meal system opens up for social gathering within the family for breakfast and dinner and social gathering with co-workers for lunch, while social gatherings outside the family, is typically reserved for the weekend, where there is more time (Holm, 2012). In situations where work patterns are not consistent or do not fit in with typical dinner-hours, the “traditional family style” dinner and the social gathering in which the meal encircles, is limited to weekends with more hours to do so (McIntosh et al., 2010).

In some cultures, the act of eating the same food and sharing a meal can create a bond between people, thus making the meal time situation a time for bonding (Fischler, 2011). DeVault (1991) describes the family meal as the representation of the affirmation of the unity, which the family represents. The family meal serves as rituals, where the foundation for the family is established and maintained through the bond of commensality. DeVault views the family as a construction that needs to be confirmed through collective activities such as the meal (DeVault, 1991). However, factors such as the geographic setting of a job in relative to home, time and the physical aspect of the working life, all have its influence on the meal habits and patterns – as the frames of our everyday life changes, so does the meal habits. As described by DeVault, the practice of eating together as a family is viewed as a social norm, which bonds the family together. Thus eating hours are, to an extent, adapted to fit children’s part-time activities, rather than the adults working hours, whereby the family meal are added and significant value. Families with older children seek to coordinate the eating hours, so as many family members as possible can take part in the meal. The adults take the children’s part-time activities into consideration, to make space for the family meal.

The act of creating a “meal” is not limited to the act of just cooking it. Acting as the “host”, tending to other needs at the table and creating the social framework within the meal is also part of creating *a meal*, according to DeVault (1991). In addition, the creation of the meal is also creating communities or unities not just when eating the food itself, but also concerns the part of cooking the food. These communities or unities are created both before, under and after eating the food and creates the human relations which represents *the family* (DeVault, 1991). Within families with smaller children, the avoidance of conflicts with the children can sometimes overrule the good intentions of serving healthy food for the family (Ekström, 1991). Social interaction and coziness in the meal can trump healthy food - a participant mother from a Swedish study (1991) stated that vegetables provide nutrients with a case of guilt. The ideal and idyllic family meal does not always harmonize with the nutritional demands for a healthy meal, thus creating a conflict between the two - you do not cook food for the family, which is not expected to be accepted to eat by the family, as it would violate the expectations for the meal as the facilitator of the harmonic and community creating tool for the (loving) family meal (Ekström, 1991).

Entomophagy

This section will give a presentation of entomophagy – the practice of eating insects. An introduction to what entomophagy is will be given as well as a short presentation of some historical aspects of eating insects. This section will also provide the reader with *some* of the traditions of entomophagy taking place in some parts of the world, and the western part of the world; where are the practice of eating insects commonly taking place (and why)? The purpose is to get an understanding of the reach of entomophagy and the cultural aspects surrounding it. Research within Westerners attitudes towards entomophagy will be presented, to give insight of some of the challenges linked to eating insects in our part of the world. This section will give an introduction to some of the main focus areas, when it comes to entomophagy in the western world of today. Lastly an outline of the recent alignment of legislation, within the European Nations are given, to give insight of changes being made towards.

The practice of eating insects

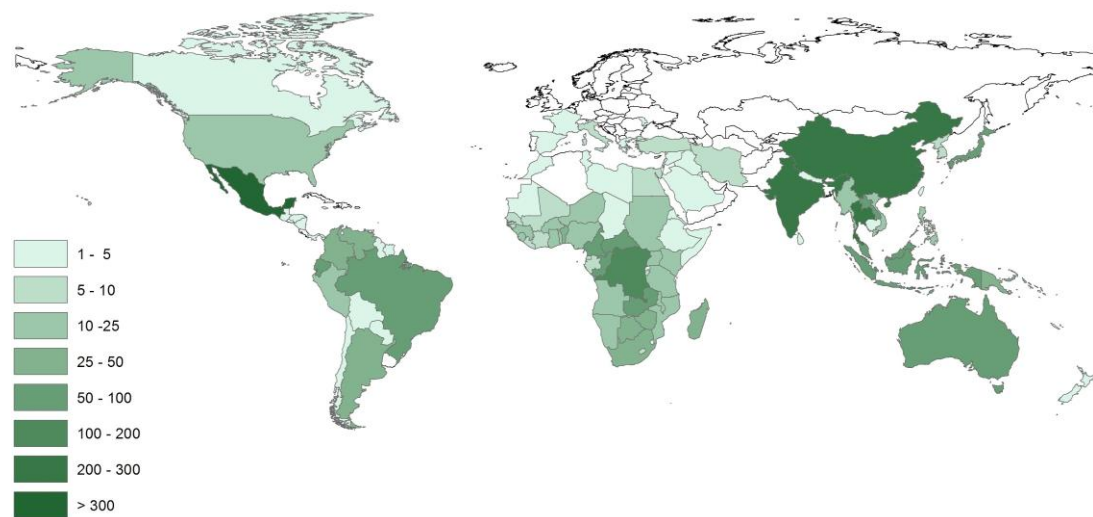
Entomophagy is the practice of the human consumption of insects. This contains both whole insects, parts of the insect, larvae, pupae and eggs. A search on Google (*Google N-gram*), states that the first published mention of the word came within the years of 1870 and forward. Vincent Holt's publication from 1885, *Why not eat insects*, is referred to as one of the first documents to suggest a consumption of insects by humans (Holt, 1885). The interest for entomophagy has clearly been on the rise the last few years. A review of the articles presented in J. Evans et al.: *'Entomophagy': an evolving terminology in need of review* (Evans et al., 2015), states that the use of the word *entomophagy* is used in 15-16 scientific articles before the year 2011. Between the years of 2011-2015, the use of the word is multiplied and has over 49 entries. In 2013, The Food and Agriculture Organization of the United Nations published a report on edible insects, shedding focus on the matter (van Huis et al., 2013). From 2013-2016 a three year project on insect gastronomy were carried out by Nordic Food Lab. The project, titled *Discerning Taste: Deliciousness as an Argument for Entomophagy*, were set out to explore the gastronomic side of entomophagy and eating insects, rather than focusing on an industrial point of view (Nordic Food Lab, 2016).

There are approximately 2111 species of insects in the world, which are considered edible for humans (Picture 3 & Jongema, 2017). In some parts of the world, insect consumption are viewed as a normal meal practice and consumed on a, more or less, regular base. In Mexico, escamoles, which are the larvae and pupae of ants, are eaten as a delicacy. In parts of Africa, a small swarm of locusts are seen as a gift, rather than a plague, since the harvested locusts can feed many mouths and in Thailand insects are found in many food markets, both as deep fried salty snacks on-the-go and unprocessed to cook at home (Picture 1). In Europe, in Italy, they have the *casu marzu* cheese, which consists of a fermented sheep milks cheese with live maggots in it (van Huis et al., 2013), and here in Denmark, the then two-Michelin starred Restaurant noma caused quite the commotion by serving live ants at one point (Picture 2).



Left picture 1: insect vendor in market i Pathum Thani, Bangkok, Thailand (Sangnak, N., 2013). Right picture 2: serving with live ant at Restaurant noma, Copenhagen, Denmark (Alexander, S., 2015)

From a historical point of view, in some of these cultures insects has been a crucial part of the diet and amounted for a substantial portion of the food; easy to access with little to no effort and representing a food source with high yield, insects were, and still are, a reliable and steady source of food, returning on the same locations each year (van Huis et al., 2013). A review of traditional consumption of insects in Africa, Asia and Europe has been conducted by Dele Raheem and colleagues (Raheem et al., 2018). In Africa alone, there is more than 1500 different species of edible insects. In Asia there are around 349 insect species consumed divided across 29 different countries. With one Asian country, Thailand, there are more than 194 edible species. Entomophagy has been practices on a daily by most rural communities in Thailand, and serve as an important protein source for most, since socio-cultural and economic limitations have limited the intake of protein from other animals (Raheem et al., 2018).



Picture 3: Edible insect species, listed by country

(Centre of Geo information by Ron van Lammeren, Wageningen University, version 170402, Jongema, 2017)

However, a few recent studies have indicated a decline in the tradition of eating insects. A westernization of the diet (Seubsman et al., 2009), (Klein, 2009) and better access to imported cheaper and refined food items and deeming entomophagy as a “primitive peoples practice” (Neto & Medeiros, 2003), are some reasons for the decline of entomophagy in some parts of the world (Verbeke, 2014). Even with the declining interest in some parts of the world, the interest for edible insects is on the rise in others. The practice of eating insects generally takes place in the tropics and we, in the West, often do not have the same tradition of entomophagy as other parts of the world (Picture 1.2). This is, of course, not entirely the case and entomophagy is also practiced in other climates (van Huis et al., 2013). While we do eat *some* products in the West, which has its origin from insects, we do it so without giving it much thought - except of course, for the casu marzu cheese and ants on noma. Honey, cochineal for food coloring and shellac, also known as *confectioner’s glaze*, are all products that origins from insects - although it is debatable if everyone actually knows the origin of these products.

Entomophagy in the west

With estimated 2111 species of insects suitable for human consumption the abundance of variety is plenty, it would seem. However, in the Western part of the world, we do not always share the same enthusiasm towards entomophagy, as other parts of the world. In fact, most western people have feelings of disgust, when it comes to eating insect (Rozin & Fallon, 1987) and (La Barbera et al., 2017). This will be elaborated further on in a later section.

An argument often used, when it comes to incorporating insects as a part of our diet in the western countries, is sustainability. FAO published a report in 2013: *Edible Insects - Future prospects for food and feed security* (van Huis et al., 2013) on why the need for entomophagy is to be considered a valid solution for a more sustainable food system. Three reasons were given: *Health*, *Environmental* and *Livelihoods*. When dealing with entomophagy, we mostly relate to edible insects - whether insects are acceptable for human consumption on regards to factors as food safety.

However, a study from 2015 (Deroy et. al., 2015) concluded that Westerners are not rational when it comes to their willingness to eat insects. The participants did not rely solely on the utilitarian arguments (the health and environmental benefits) that are often associated with entomophagy, and therefore rejected insects as being food items. It was suggested that a gastronomic approach should be taken, if people in the western countries are to eat more insects and insect based products, putting emphasis on the hedonistic aspects of entomophagy, rather than a rational approach. The study also showed that the participants were more willing to eat products with “hidden” insects in it, using finely blended insects or insect flour, so they could not see that they were, in fact, eating insects (Deroy et al., 2015). Ben Reade from Nordic Food Lab (Deroy et al., 2015) puts emphasis on the gastronomic point of view, if insects are to be included in our diets. The “rational” views of entomophagy are to be put aside and a gastronomic course of action should pave the way for the inclusion of insects in our kitchens.

In a Dutch study from 2014 (Verbeke, 2014), sought to test whether, participants were willing to eat insects as meat replacement. The participants were asked whether they were willing to replace beef with meat originated from insects. The study concluded that

participants were willing to include grounded insects in their diet as a meat replacement to *some* of the beef in a hamburger, but the hamburger should still contain beef. Participants also stated that the insects had to be non-visible, either grounded into insect mince or insect flour (Verbeke, 2014).

People are also more willing to eat insects, after they have tried them in familiar food-items. An experiment with 104 participants (53n control, 51n experimental), performed in the German-speaking part of Switzerland, tested the participants willingness to eat insects, once it was tried in familiar products. Processed insects, in the form of a tortilla chip, were introduced to see if it was feasible compared to a regular corn tortilla chip. The conclusion to the experiment was that people's willingness towards eating insects increased, after they had tried the cricket tortilla chip, thus morphing the unfamiliar cricket into a familiar food item. However, the willingness only expanded to eating cricket flour and not whole crickets (Hartmann & Siegrist, 2016).

An experiment conducted in Denmark and Italy, by Verneau et al. (2016), which emphasized that familiarity of known food items enhances the possibility of eating a product based on insects. After participating in a survey, each participant received a chocolate bar with peanuts which had been infused with proteins from crickets, and a conclusion hereafter was that a familiarity with a given product enhanced the possibility of trying it again in the future (Verneau et al. 2016).

The MAPP Centre, Aarhus University Denmark, published in 2017 a report on Danish people's willingness towards eating insects as a response to this (Videbæk & Grunert, 2017). The report, which was ordered by the *Danish Veterinary and Food Administration*, had the purpose of investigating whether Danish people are ready to include insects to their diet. In their report, based on qualitative questionnaires among a representative part of the Danish population, they conclude that highly educated people and men in general had a higher tendency to try insect based products (Videbæk & Grunert, 2017).

The notion of males having a higher tendency to try insect based products is validated by several other articles. As mentioned before, the experiment by Hartmann & Siegrist (2016) where the participants had to try processed insects in the form of a tortilla chip, the majority of the male informants reacted positive to the processed chip, whereas with the females,

there were a bit more hesitation. As with the survey conducted by Verbeke (2014) in order to profile consumers who were ready to incorporate insects as a meat substitute, and again the result pointed towards males being more likely to incorporate an insect based product as a substitute to meat (Verbeke, 2014). While it seems that men are more prone to try and eat insect based products, there is an uncertainty when it comes to children and the case of entomophagy. Not many studies of such has been made solely regarding edible insects and children, but a Master Thesis product has been made by Hannah Tranter (2013), a graduate from MSc Sustainable Agriculture and Food Security from the University of East Anglia, on the subject. For her thesis, several interviews with experts from around the Western world with a field revolving around edible insects were conducted, and several of them mentioned the great potential of introducing entomophagy to children as a way to normalize this food item in the future. The consensus was that introducing and educating of this field to a younger audience were a great way to increase the exposure and experience of entomophagy (Tranter, 2013).

Edible insects in EU - new tendencies, new rules

With the growing interest for edible insects in the western countries, more farmers and producers have emerged. However, the legislations for insect production, both for farming and processing, would vary from each European country, making it next to impossible to trade insect products across borders. In some countries, restaurants were being forced to close down if trying to put insects on the menu (Winning, 2018). In Denmark, the *Danish Veterinary and Food Administration* were put to the test, when the Danish mealworm farmer *Heimdal Entofarm* wanted to start up their production of mealworms. The Danish authorities simply had not been put in the situation before, where a producer wanted to produce insects for human consumption. Heimdal Entofarm were allowed to produce mealworms, but since the legislation was still not clear on the production of insects for human consumption, they were not allowed to sell their mealworms for human consumption (Fødevarestyrelsen, 2017).

The increasing interest for entomophagy, obliged the lawmakers to re-evaluate the legislation of insect production for human consumption within the European Union. As of January 1st 2018, the legislation on edible insects, including both farming and production,

were aligned in all the countries within the European Nations. Insects and insect-based products are now placed in the same category for all nations, paving the way for new farmers and producers of edible insects.

As already stated, insects have not traditionally been eaten in the majority of the European countries. therefore placing edible insects under *novel foods*. The term *Novel Food* is, according to the European Commission: *food that had not been consumed to a significant degree by humans in the EU before 1997* (European Commission, 2017). The different classifications in order to be considered a novel food within a country in the EU varies, but has to be either a newly developed food, an innovative food, a food produced by using new technologies and production processes and can also be a food which is or has been traditionally eaten beyond the EU (European Commission, 2017). A few principles have been created in order to define what a novel food must be:

- Safe for consumers
- Properly labelled, so as not to mislead consumers
- If novel food is intended to replace another food, it must not differ in a way that the consumption of the novel food would be nutritionally disadvantageous for the consumer.

Edible insects fall under this category, which means that in order to be sold as a food item within the EU, the name of the insect (this includes its Latin name) has to be stated, the development stage of the insect has to be visible, which part of the insect is used for production and lastly which production methods is used (European Commission, 2017). The updated novel food regulation, made it legally clear that whole animals (insects included) has to be subjected to the novel food regulation. Before this a legal uncertainty existed within the regulations of edible insects, and diverse interpretations was made by different EU member countries. A number of insect species for human consumption is now placed under the same category of novel-foods (Fødevarestyrelsen, 2017), and there are now in Denmark, as we write, currently three producers of edible insects for human consumption; Heimdal Entofarm, who produces mealworms (Heimdal Entofarm), Enorm Aps, who

produces soldier flies for its larvae's (Enorm Aps) and Bugging Denmark, who produces crickets (Bugging Denmark).

Food acceptance and rejection

When a new and rather unfamiliar food item are introduced to consumers, it is not a given that the consumers will accept the new food. Edible insects represent, for Westerners at least, a rather new and unfamiliar food item which are, as mentioned in previous section, not embedded in our food culture (*Entomophagy section*). *Food neophobia* and *food Disgust* are two terms repeatedly mentioned in articles, when researching literature concerning the practice of eating insects in the West. Both terms are used as tools to measure the level of people's food acceptance and -rejection, and it would seem that you cannot study entomophagy without the notice of the two terms when addressing food acceptance and -rejection. The following section will briefly explain what the terms food neophobia and food disgust covers, within the field of food acceptance and -rejection and people's attitude towards trying unfamiliar food.

Stages of acceptance

Fallon and Rozin (1983) have identified three dimensions in order to understand the acceptance or rejection of food based items. The first dimension is '*danger*'. This is referred to the reaction one might have when interacting with food items, and is based on the anticipated consequence of eating them. The second dimension is '*distaste*'. This is attributed to the acceptance or rejection of a food item based on the real or imagined sensory characteristics the given food might have. The third and last dimension is '*the knowledge of the nature or origin of the substance*' regarding the food item (Fallon & Rozin, 1983). Prior to the identification of the three dimensions, a study was conducted by Rozin and Fallon (1980), in order to give credence to the classifications. A questionnaire was developed, and given to a student population within a undisclosed American University. The result of the study, described what gave foundation to the three dimensions. The '*danger*' category was characterized by a rejection based on the anticipated inimical reaction and presence within the stomach. The '*distaste*' dimension was exemplified as a rejection based on taste, smell and texture. The third dimension was based on the disgust of any substance

that produced nausea and dislike when knowing the origin of substance (Rozin & Fallon, 1980).

Two reasons is given by Fallon and Rozin for the acceptance or rejection of food items. One reason could be that the given food item is not considered or classified as a eatable item within the the given culture. The second reason is related to the knowledge of knowing where the food item is coming from and the social history behind it (Fallon and Rozin, 1983). Visual cues have also been attributed to accepting a food item or not, since it is usually the first sensory contact made when being in contact with a food item. Wadhera and Capaldi (2013) have conducted a review of which visual cues are associated with accepting different foods and lists: proximity and visibility, color, variety, portion size, height, shape and surface area, size and number. They go on and state that visual exposure to a novel food before consumption of the given item is particularly effective when introducing new foods to children (Wadhera & Capaldi, 2013). Enhancing the visual appeal of a novel food has also been shown to increase the acceptance and encouragement of consumption. Jansen, Mulkens and Jansen (2010) enhanced the visual aspect of a novel fruit item, and saw a significant difference in which fruit item was taken. The children participating in the experiment tended to go for the more visual attractive food item, than the fruit items that were merely placed on plate (Jansen et al. 2010).

Disgust

'Disgust' has been found to be an important factor when referring to the rejection of a novel food, specifically those of animal origin (Pliner and Pelchat, 1991). A study was made by Pliner and Pelchat (1991), where the participants showed more likely to reject unfamiliar food items of an animal decent than those of non-animal decent. Carroll Izard, an American research psychologist, recognized 'disgust' as one of the six or seven core emotions residing with a human being (Izard, 1991). Furthermore, Rozin and Fallon (1987) has conceptualized the meaning of *core disgust*, as a food-related emotion. They describe it as a: "*form of food rejection which is characterized by revulsion at the prospect of oral incorporation of an offensive and contaminating object*" (Rozin & Fallon, 1987, p.24). As with any basic emotion, 'disgust' has a characteristic facial expression, a specific physiological state, a behavioral component and a state of a certain feeling (Rozin & Fallon, 1987). Within the definition of

core disgust, an existence of three factors are present: revulsion at the prospect of oral incorporation (providing a link to food and eating), a sense of offensiveness and contamination properties (Rozin & Fallon, 1987; Rozin et al., 1993).

A particular disgust of animals and the waste products that follow along (mucous, feces, blood) has been noted as having a strong negative impact when humans have to define which objects are the cause for this. Angyal (1941) has pointed out that the disgust for animals is so strong that certain cultures have to disguise the origin of the animal, by applying culinary preparations such as chopping, cutting, mincing and even going the lengths of renaming the animal that are served - cow/beef and pig/pork (Angyal, 1941). In most cultures, very little of the whole animal is eaten, often the head and viscera are avoided, and a notion can be made that the part of the animal that resembles an animal is often not eaten. (Martins & Pliner, 2006).

As with the distinction of what is deemed eatable of the animal, only a small selection of animals are treated as such (Rozin, Haidt, McCauley, 2008). Animals close to humans, either as a pet or in appearance, are rarely deemed eatable, and certain animals that seem to produce a mixture of fear and disgust are as well not considered a food item in most parts of the world.

Within the field of insects and disgust, very few articles have been published, solely on the subject of entomophagy. Insects are usually put in the same categories as faeces, vomit and rotten food in general, and rarely put in the category with other food items (Deroy et al., 2015). Deroy et al. (2015) presents three different types of disgust: *core disgust*, *body violation disgust* and *moral disgust*. *Core disgust* is described as a vector of dirt and disease, *body violation disgust* is associated with a threat to the integrity of the body, and *moral disgust* is characterized as a threat to the social and moral order (Deroy et al., 2015). As Ophelia Deroy and her colleagues state in their article (2015), most of the scientific experiments done with insects and the link to disgust, are based on the visual aspect and very few experiments have been about eating actual insects (Deroy et al., 2015).

Rozin et al. (1986) constructed an experiment with 50 participants, in order to uncover the hypothesis that revolves around contamination as a key component to disgust. The participants were put in a position where they had to rate two glasses of juice respectively, where after the experimenter showed all of the participants a dead cockroach. The experimenter explained to them, that the cockroach had been sterilized and was safe to eat, and then dropped the cockroach into one of the glasses with juice. With the other glass, a birthday candle holder was dropped into it. The participants had to evaluate the two juices by sipping it, and a dramatic effect was shown with the glass and the sterilized cockroach, and no effect was shown with the glass and the birthday candle holder (Rozin et al. 1986).

Methods

This section will elaborate on the methods used to collect our empirical data and which strain of thought led us to use the specific approach for this case-study. The research design of this explorative study, was done in coherence with a praxiography framework. The use of semi-structured interviews and the analysis tool of Photo Elicitation, helped us guide the interviews and analysis of such, in a way we saw suited for this project.

(doing) Praxiography

The framework for our methodical (and in coherence with our theoretical framework) approach to how we have gathered and observed our empirical data is based on a praxiographic approach. When doing so, everything (objects and events) must be taken into consideration in the quest of trying to understand the worlds in which the insect based products are enacted in. The praxiographic approach, which we are taking, not only allows it, it requires it (Mol, 2002).

The different enactments that were observed and told to us by our informants must not be isolated from the practices in which they were enacted, instead they must be seen as objects which are enacted through these practices. This raised a few questions from our perceived reality: How are edible insects (and insect based products) enacted within the practices of what can be considered a food item, and how are the enactment of the object seen through the practicalities; edible insects in the food section in the supermarket can be food, insects in the pet store can be feed for animals, edible insects in the kitchen can be

both a food, a pest, a plague, a sign of healthy ingredients, a sign of bad hygiene and the list goes on. Even within these different enactments of the edible insect, different realities can have multiple facets.

Some of the different enactments that came to be as the products were given to our informants were indeed multifarious and some examples of these as collected through the pre- and post interviews and the pictures provided to us were: an alternative protein source, a gimmick, a food for other cultures, a Master Thesis participation, a dingy animal, a resurrected object. Further elaborations on these practices and enactments will be analyzed in the coming sections.

The way we chose to conduct this research, some realities and networks were already created by us before handing the products to our informants (unintentionally, but bound to cause a ripple), which then were enacted by our informants; the way we contacted them, the theme of edible insects, how we referred to edible insects during the interview and which relations we put them in, the specific products we gave them, how we presented the products and undoubtedly many more. Other enactments and relations might have been observed if we had chosen a different approach; we could have provided the different products with recipes, we could have presented the edible insects in a different order, we could have given the informants more time to engage with the products between pre- and post interview or we could have conducted the semi-structured interviews as a focus group participation and so on. Every which way we had conducted our research, realities and the different enactments would have varied, not only between the different informants, but within the same individuals as well.

However, realities can move, they are not fixed and set in stone. When we set out to do the first interview with our couples, prior to handing out the products they could have sought out to investigate, thus the reality of the informants are already in motion (Mol, 2002). As seen, and further elaborated upon in the analysis section, a female of one of the couple, saw this participation as being part of a game show, another couple took the opportunity to try out insects in a foreign country and another couple started noticing different insect products before be handed any by us. Different realities were already moving, and even though our wish, for the couples to as unbiased as possible, this was not the case at hand.

We sought out to present the informants to the products in as a natural environment as possible, in their own home, at a time they had chosen, so to not interfere too much with their reality and everyday life. This scenario is, however, next to impossible to present and biases will always occur (Mol, 2002). We, as practitioners within the field of food studies, will twist and turn the interview into what we need to get in order to get on with our research. Lisa A. Mazzei (2013) touch upon this, stating that we as interviewers always will stage the scene of the interview, even though it takes place in the safety of the informants own homes. We are the ones that produced the questions that would lead us through the semi-structured interview, thereby biasing the answers we would receive from our informants. Maybe not the answers we would need or expected to get, but the answers might not have been the same if we had asked the questions differently or if at all had asked them. When we as interviewees ask questions, we put spotlight on the informants and an answer is produced in accordance to our questions (Mazzei, 2013).

According to Mol (2002) neutral information does not exist and providing only neutral information cannot be done. Every answer given to us, or not given to us, will be interpreted and evaluated and the same goes for our informants. How we ask and provide information to them will be enacted as they see fit. We must aim to present one version of a reality, leaving the informants to create their own (Mol, 2002). One informant put this notion to a test, when she tried to create her future reality through our answers. She sought out a confirmation from us, that the products we supplied them with, would taste good and a green light that we had also tasted them. This incident, took an improvisation from our side, in order to try and not bias her reality more than we had already done. A response was given that we would not want to influence her too much with an answer, laying the cards on the table but not showing her the full hand. The truth was that only a few of the products had been tested by us, but this was not done in relation to this product. We acknowledge insects and insect based items as a food item, but as with our informants, this has not been a natural eating within our own food culture, letting our pre-understanding rub off on our informant and not releasing her of her skepticism.

As already mentioned, a multitude of different approaches could have been taken in the course of presenting our informants with the products; how we went about interviewing

them and why we asked them to document their journey with the products through the lens of a camera. The *hows* and the *whys* will be elaborated upon within the next sections.

Gathering empirical data

As stated in (*doing*) *Praxiography*, we used a mix of semi-structured interviews and photo elicitation to gather our empirical data.

For the pre- and post interviews, an interview guide was developed, to ensure all relevant topics were reached. As mentioned earlier, we set the stage for which answers would be given, but how and what the informants answered were completely up to them (Vallgård & Koch, 2012).

Selection criteria towards informants

For the gathering of information, to explore if insects could have its existence in Danish people's every-day meal practices, informants were chosen as the primary source of information. Prior to the choice of criteria's of the informants, used for the remainder of this thesis, four pilot interviews were conducted. This was done in order to gain more insight into how questions might be asked (Vallgård & Koch, 2012).

The pilot interviews were conducted on different target audiences, each with different characteristics, thus each representing a segment different to each other. The characteristics of the informants were; a single man in the 30's, a single woman in the 30's, a married couple with two children and an elderly couple in the 60's (Appendix 5.1-5.4). The informants for these pilot interviews were chosen through our internal network and due to practical reasons all informants were living within Greater Copenhagen.

After the pilot interviews were conducted, the interviews were mapped out in order to sort out the different statements said within the different segments (Appendix 10). The mapping process supported some of the existing literature we had already found within entomophagy, which helped us choose the segments of informants needed for the thesis and which subjects to dive into. Thus the married couple with children were chosen to be the most suitable segment to investigate further. Their food practices were of a more utilitarian way than the others, which were of a hedonistic approach. In order to see how having children might influence, on edible insects to be implemented in a couples every-day

meal practice, we chose to go forth with two different segments with the aim of seeing the difference in the two. The criteria's for the informants hereafter, consisted of cohabiting couples in the age range between 25-40 years old, living in the area of Greater Copenhagen. Three couples *with* children and three couples *without* children, ending with a total of six couples to further investigate. An introduction to the six couples will be given before the analysis is engaged.

The geographical setting was mostly of practical reasons, since we also got responses from people outside Greater Copenhagen. We aimed at getting as homogeneous as possible group of informants, and not having geographical differences be the cause for differences within the responses. Therefore some possible informants were ruled out (we apologize for that). The notions of food trends in Denmark having their starting point in Copenhagen *could* also be used as an argument for deciding on informants, resident in Copenhagen, but we did not investigate further upon this. Therefore our informant's geographical setting was chosen due to practical reasoning. The intention was to reach beyond our own network, and have interviewees not known by us. In order to reach out to potential informants, social media outlets such as Facebook were used as platforms to distribute information about the study. We let our internal network know, that potential informants outside our internal network was preferred. However, the mentioning of insects as an object of interest proved to be a hindrance, when trying to collect interviewees; only one family showed interest in participating and even they came from our internal network. Thus the criteria for choosing outside of our own network were reevaluated, and it was concluded that in order to collect the interviewees needed, we had to look within the internal ranks. Even then, the object of insects as an eating turned out to be an obstacle but the six couples were gathered in the end.

Semi-structured interviews

The interviews were held over two sessions; the pre-interview was to get some background knowledge on each couple, such as their meal-habits, their food culture, the culture they were brought up in, their grocery habits and so on (Appendix 3). After the pre-interview were conducted, the informants were handed the products which were selected by us (Appendix 9). We presented the different products one at the time, to ensure we got the full range of emotions from our couples when they witnessed the products for the first

time. We agreed to start with the products that resembled "normal" food items first, and then scale it up towards the whole insects.

The idea was for our couples to explore the different products within a reasonable time. Our initial time frame were a week between pre- and post interview. That way each couple would have about a week to test out the products. For some, a few days more were needed in order to explore each product, and for some a week was enough. The most important factor for us, were that each couple felt comfortable, within their busy schedules and daily routines to have the time to sit down and talk to us, no matter if they had had a chance to work with the products. The pre-interview with one couple for example seemed a bit hectic, as we entered in the middle of what in Danish is commonly known as "*ulvetimen*" (the time of day where everybody is gathered after a day of chores, and dinner had to be prepared). This hour of the day created a chaotic setting when trying to interview the couple. While the oldest child (age five) sat nice and quiet on the sofa, being entertained by some cartoons on the TV, the youngest child (age two) was another story. It seemed like we entered a warzone where the younger of the two, acted like the general and demanded his troops forward, so dinner could be served. When his soldiers would not obey, he started crying, but as fate would it, the soldiers had a trick up their sleeves - a biscuit and a book about dinosaurs. This calmed things down, and we could do our interview, so dinner could be prepared and served. This gave us a clear idea of what went down within the four walls of the couple's household and contributed to a better understanding of what and how they conducted their normal eating and food practices.

The post-interviews were conducted when it suited our informants best, as mentioned our initial time frame were within 7-10 days, but we also did not want to rush our couples, and that way make sure we received a more homogeny interview (Appendix 4). Whereas, as mentioned above, the pre-interview with one couple had happened within the "*ulvetimen*", the post-interview were set up by them to be after this had happened (for the record, the general were still barking orders to his soldiers, this time though from his bed instead).

Thus the structure for each interview, were as followed:

Pre-interview → informants exploring the products and carrying out the photo elicitation → mapping session of the photos taken → Post-interview

After each interview, transcriptions were done verbatim. This process gave us a deep insight into what was said, and how and what to be aware of, before the post-interviews were conducted. It also provided us with a sense of what to focus on within the analysis, and the time consuming process gave us an opportunity to focus on every detail, without consciously determining which quote would be of more value. Some information was lost due to mumbling or when the talk overlapped each other, but all in all it helped a lot when the analysis had to begin.

As the interviews were done in Danish, since all of our informants are Danes, all of the transcriptions were also done in Danish. So when using quotations from the interviews in other sections, some of the wording did get lost in translation. However, as we are also native Danish speakers, we sought to find a translation of specific words that seemed fit. Other places, where a translation in English did not seem to fit, we simply just put in the Danish word (as with the word *ulvetimen* above) with an explanation following.

Photo Elicitation

In order to fully utilize the interviews with the different couples, we chose to combine the semi-structured interviews with the method of *Photo Elicitation*. The joy of using *Photo Elicitation* is that it awakes feelings, memories and information that might have been gone or forgotten during the spoken part of the interview. The part of the brain that processes the visual information is evolutionarily older than the part that alters the verbal information, and thereby evokes a deeper element within the interviewee than just the spoken word. Not to suggest that the information given is the same from both methods, but a combination of the two granted us a more thorough description of what happened in the given moment (Harper, 2002). The combination of the two helped us with the analysis of the post-interview, but also helped the interviewees during the interview in order to recall the certain process during the interaction with the different products.

At the end of the pre-interview, the interviewees were told to use their own cameras (either built-in ones in their smartphones or digital cameras) in order to get a more realistic frame of the situation. They were asked to take pictures of everything they deemed worthy: the preparation stage, the interaction stage, the eating stage, the disposable stage and send everything to us before the post-interview, so we would have a chance to go through the

different pictures, and be prepared to ask in to the different situations. Before the post-interview, the pictures were numbered and placed in an order to direct the interview as we saw fitted. The pictures were analyzed before the post-interview, to support the conversation. When showing the interviewees the different pictures that they took, a sense of recollection was noted, and the interviewees spoke more freely, to some extent, of the given situation than they did, when pictures were not incorporated. Not all of the participants understood what we wanted to gain from the pictures that were sent to us, and not all pictures were sent before the post-interview.

To bee or not to bee, a fly on the wall

Prior to the semi-structured interviews, an interview guide with a lot of elaborate questions were drafted to ensure we got all the answers (we thought) we needed, in order to understand every aspect of the informants; *what* they eat, *why* they eat it, *when* do they eat, *what* they buy, *when*, *where* and *why*, and the list (as seen in Appendix 3,4) could go on for quite a while. We did consider some of the answers we eventually got from our informants, would open up a new string of questions and those we went along with. Again, this is the beauty of doing semi-structured interviews; while we had a guide to ensure the basis of an understanding of our informants, the interviews were still wide enough to encompass other and new information than we set out to find, embracing how their world were in that giving moment.

As mentioned earlier, we aimed at influencing our informant couples as little as possible, when providing them with the insect products. However, as also mentioned, there will always be some sort of influence of the informants. We cannot be flies on the wall (pun intended) and our presence and meddling in the informant's life are bound to stir up things, forcing them to consider things that they may not have thought of before. The explorative approach we led our informants to have with the products, refrained us from wanting to affect our informants too much, therefore not providing them with either recipes, tips for cooking, web-pages or the like. This might have proved to be too much of a challenge for some, which was notably remarked with one female, who kept asking us with skepticism, what we had done with the products. When she read from our faces and reactions, without even listening to the answers we provided her with, as mentioned earlier: 'we would not want to influence her too much with an answer', her skepticism only grew larger. She indeed

sought out for some sort of verification of the insects being edible, other than our verbal insurance of it, in terms of them being safe to eat, while for others, they blended in more easily.

Literature Search

This project started with a literature search of *what* edible insects were and *who* eats them, in order to gain a better understanding of how to perceive a food item of this magnitude. With the aim to examine, how sought after a product this was, and how the Western world comprehend with a food item of this significance, journals and articles were found by using different databases. Overall databases such as Ebscohost and ProQuest were used in the initial search, to ensure a broad search without limitations of content-specific databases. Although within Social Sciences practices, such as *every day meal practices*, content-specific journals as SAGE Journals were used in order to limit the result of articles, otherwise found in the overall databases. Other databases used were *Science Direct*, *Google Scholar*, *AAU Primo* and Nordic Food Lab's own *Google Drive*.

The methods of literature search is varied between a systematic literature search, using search blocks and the 5 W's (*wow, what, where, words, work*) (Zins, 2000) and *snowballing*, which consist of scanning some of the reference lists of relevant articles found and finding relevant topics within the articles itself, as the study unfolded. As an example hereof, the subjects of *food neophobia* and *food disgust* relative to entomophagy was unfolded by studying the practice of eating insects in the Western World. Both terms were repeatedly referred to, when the subject of entomophagy in the West was studied, thus some articles and primary sources on the subjects were found in the reference lists of other articles.

Since edible insects are more than just insects, another search was made in order to gain a more comprehensive knowledge on food in general. Some of the keywords used to locate these were:

Edible Insects, Western view on Insects, Denmark Insects, Nordic Food Lab insects, food neophobia and insects, sustainable food items insects, processed foods insects, meal practices, every-day practices, entomophagy, children and entomophagy, novel foods, visual ques and food, food acceptance, food rejection, disgust

In order to gain an overview of the different articles, a spreadsheet was made. This helped us, as researchers, to get a structured search pattern and eliminate un-relatable articles and topics. Year, title, name of author(s) and a small description of how to use the articles were noted in the spreadsheet, in order to properly use the correct journals when needed. A broader search were conducted in order to examine the rich history, edible insects has, on a global plan. As an inspiration, the film *BUGS* (BUGS, 2016) on edible insects around the world, produced by *Nordic Food Lab*, were viewed in order to gain knowledge on the sensory part of edible insects.

Theoretical framework

As seen in the *State of Art*, an edible insect is not just an edible insect, it is multiple. Insects both serve as an exotic treat, a lifestyle for millions of people around the world, a disgusting creature, a vomit-inducing object, a delightful snack and the list goes on. For us, as researchers, the insect serve as an object that needs further investigation in order to explore some of the multiple realities, that exists within our informants. With the aim to explore how couples from the area of Greater Copenhagen interact with the edible insects, and how the insect becomes different versions (as described above), *multiplicity*, developed by Annemarie Mol (2002) serves as the theoretical framework for our research. However before going deeper into multiplicity, an introduction to the scientific traditions, in which multiplicity is embedded are given, in order to understand how multiplicity is *done*.

STS - Science Technology and Society

Multiplicity originates from *Actor-Network Theory* (ANT), which is a discipline within *Science Technology and Society* (STS) (Law & Singleton, 2014). STS seeks to deconstruct those structures of the world, constructed by constructivists (so to speak). Within *structuralism*, French anthropologist Claude Lévi-Strauss argued that within human societies, there exist universal patterns in cultural systems which are universal embedded in us, regardless of which parts of the world we look at, thus creating static and stable units of humans; knowledge is universal and can be conveyed. It was also argued, that to understand these cultural systems, there is a need to look at the relations that exist between the individual elements. Structuralism critiqued phenomenology, where the individual perceive and observe the world through its own individualism. Within

structuralism it is understood, that cultural phenomenons can be perceived through its fundamental structures, where the individual's own awareness is not acknowledged – it is the fundamental cultural structures which determines how one think and act and not the individuals own awareness (Law, 2015).

Post-structuralism, with, amongst others, Michel Foucault and Jacques Derrida at the helm, challenged that perception, questioning the static structure of knowledge. They argued that knowledge could depend on the beholder and vary through different discourses (Lübcke, 2010). Within the poststructuralist tradition it is argued, that to understand the studied object, one can not solely study the object alone, but the underlying structures surrounding the object, needs to be studied as well (Law, 2015). ANT, which was developed by Michel Callon, Bruno Latour and John Law, is a theoretical and methodological approach that builds on the notion that everything in a social and natural world (human and non-human actors and objects alike) all co-exists and define each other in a constant changing network (Law, 2015). In contrast with “traditional” scientific approaches, there is no distinguishing between the social and the natural, but they are both equally comprehended– no one is above the other and they are all equal in those networks. Latour argues that ANT is not a theory, but serves more as a “tool-kit” for studying and mapping social relations and associations. Social forces and phenomenons cannot be “explained” but can merely be “described” from empirical analysis of social activity (Law & Singleton, 2014).

Multiple Ontological

STS works in different ways on different locations. While the same theories and methods might produce a certain kind of empirical data at one location, this might change in the next, it is situated. There is no “matter of fact” only situated “matters of concern” – findings can depend on situations and the networks that lies within them (Law, 2015). Therefore the data can differentiate depending on the situation as well as the actors involved which can explain why eating insects on holidays can be done (as a gimmick, dare, gastronomic experience), but not when being home again in cold Denmark– eating insects can be depending on the situation. Situation might also explain why eating live ants on restaurant noma might not be a hard task to overcome, as this is part of the experience taking place in a certain situation.

According to Callon, realities change over time and realities are relational in practice. Different realities exist in each single relation, making multiple realities existing simultaneously at the same time, thus creating *ontological multiplicity* (Law & Singleton, 2014). Ontological multiplicity was developed by Annemarie Mol and firstly introduced in the book *The Body Multiple* (Mol, 2002). In ANT where all entities become actors equal to one another, differences between those actors are not similar but equal. Multiplicity seeks to explore how different actors and actants are enacted in those networks, which are not necessarily similar to the other. Every enactment in a network is depending on each situation and how they relate to one another.

Mol speaks of an *ontological multiplicity*, which is characterized by several realities co-existing over time, but happening at the same time. In her book, *The Body Multiple* (Mol, 2002), the objective is to examine how lower-limb atherosclerosis is practiced in a Dutch hospital, and which enactments are produced by the different actors who come in contact with the case. During her observations and interactions with the different actors, the object of the disease becomes diversified, and new realities are negotiated and made with each interaction it touches.

Multiplicity

STS is done through case-studies and is best understood through them, and multiplicity is no different. Multiplicity seeks to explore how objects can materialize as being multiple depending on which socio-material practice it is enacted. The ailment starts in hospital Z, with a person who enters the hospital, complaining about complication and pains to his lower limb. When his pain is being confronted to the doctor, it creates a new reality for it, coherent with the doctor's notion of what the pain actually is, what causes it - the pain becomes a symptom to set of possible disorders, and from the doctor's perspective, the person's pain has the option of becoming a diagnose (and turning the person into a patient, another enactment of the pain). From here several realities and enactments are in motion – some coherent with each other, some are not, but all existing at the same time. From the person's perspective (now being a patient at a hospital) his lower limb pain is now a possible set of diagnoses for the doctor, making the enactment of that pain multiple. For the pathologist, the surgeon, the radiologist, the laboratory technician the nurse and even the board of directors, a simple complication, the patients lower limb pain, are being

practiced, enacted differently, each creating realities on its own but happening at the same time, created together with equipment, body parts, scientific arguments and routines and actively coordinated and brought together as a whole. For the pathologist, the lower limb pain is something which needs to be examined, for a possible reason for that exact pain. It turns out there is. The lower-limb pain is given a name, a diagnose: atherosclerosis. For the surgeon, the atherosclerosis is something to operate on, for the nurse it is caring for the patient after being in surgery and so on. Even Mol's own presence is a reality that needs to be considered as part of an enactment, because by being there and examining the object at hand, her reality intervenes with the daily regiment of the hospital (Mol, 2002). Throughout her book, Mol aims to describe the object as it is viewed and enacted through the different practices. Mol disputes that it is not the understanding of the object that is relevant for the investigation, but how it interacts and is manipulated through the different practices that it comes in contact with. It is in this specific moment that realities are being multiple, and that different enactments of the same object can coexist. To quote the author herself:

"It is one of the great miracles of hospital life: there are different atherosclerosis in the hospital but despite the differences between them they are connected. Atherosclerosis enacted is more than one - but less than many. The body multiple is not fragmented. Even if it is multiple, it also hangs together" (Mol, 2002, p. 55).

This does not mean that the patient's atherosclerosis is being splintered into just being separate fragments existing as different realities separated from one another. The atherosclerosis, the disease, is made into a cohering at the same time through the different enactments of it.

Ontonorms

Normative and realities can be intertwined into the term Mol calls "*ontonorms*". The text: "*Mind you plate! The ontonorms of Dutch dieting*" (Mol, 2012) elucidate that different enactments and realities can happen with food oriented objects as well. Mol's example takes departure from the practice of a dietician, who seeks to advice a patient with diabetes on how to lose weight. The dietitian's recommendation to the patient is to observe the food intake by counting the calories of the certain meal, maintaining a balance between routines, habits and culture but at the same time making the conscious choice regarding the disease.

Mol speaks of different *ontonorms* as a tool to understand the different realities taking place while the counseling is preceded. Ontonorms is a combination of the words *ontology* and *normativity*, but is meant to be used as a methodological tool. The aim of the method is to create awareness of the object at hand, but at the same time keeping focus of the positive and negative reality of the enactment of the object. Different realities – enactments – are linked to different understandings of good and bad, right and wrong. One version of an object (or practice, politics, etc.) will always include and build on, and thus promote, a certain understanding of a reality and norms. In this case the ontology of food and body, and the normative of "how to eat" (Mol, 2012). This heterogenous understanding of the object, the insects, was also observed with some of our informants. While some had negative associations with insects, may that be of insects linked to being unhygienic, a spider that can scare you or a fly in the soup, these can be a contributing factor to a negative understanding of insects as food item. If the normative understanding of insects are linked to them in a negative sense, and not something that is edible, promoting insects as being food items and something we could (and perhaps should?) eat can seem to be that much harder. What we will see in later sections, is that prior handling of the products (such as a sort of "verification" of the insects as food items) can influence the understanding and reality of the insect, thus build a foundation of positive norms of the insect.

A case-study of the Oscypek cheese

As mentioned, STS, and therefore also multiplicity, are best understood through case-studies. One such will be presented in the next section, to get a further insight on how multiplicity can be used within a case revolving a food item, which can be enacted in a multiple ways - as with the case of our edible insects.

Carina Ren, a Danish lector at Aalborg University, Denmark, gives her take on the multiple realities and enactments, which are associated with a Polish tourist attraction, the oscypek cheese (Ren, 2011). As with Mol's enactments of atherosclerosis, Carina Ren seeks to show that the oscypek is enacted through its networks, actors and relations to form a number of realities around the famous cheese. Ren argues that the oscypek cheese alters through different realities, depending which practices it is used in. The cheese vary from a traditional cheese in the mountain, to a tourist attraction in Zakopane, Poland, to a modern version

made in a laboratory and lastly as a unique version used as a strategic tool to brand Zakopane as the only place to make the original version. The enactments of the cheese differ from reality to reality depending on the engagement, and present several multiple realities simultaneously. The same could be said with edible insects; they too can alter through different realities, depending on the practice they are used in. In some regions in Africa, locusts and crickets can be an available source of protein, eaten for survival. The same insect can also be seen enacted as a tourist attraction on Khao San Road in Bangkok, Thailand, where you will be charged 10 bahts just to take a picture of it. And yet again, the same species can be enacted as a local and sustainable business venture for the entrepreneur right around the corner in Copenhagen's *Fuglekvarteret*, who aspires to opening our eyes (and mouths) in Denmark for entomophagy. So as the oscypek cheese can alter through different realities, so can the insect.

Speaking of multiple realities, the insects we presented to the participant's, were as complex as the three given examples above. The enactments of the objects were perceived multifarious, and different realities were produced within the different homes. It went from a disgusting little creature, a disease filled animal, a cold blooded killer to a delicious muffin, a replacement in a traditional bolognese, a binding matter in the meat stuffing and even a prank in the hands and eye of a child. The different insect objects came into being through various actors and the insect is a class example of how realities are fluid and enacted. Within the object several ontologies and realities took place concurrently which will be elaborated upon later in the thesis.

Empirical data: who and what?

Introducing the insect products

The selection of products were determined after we conducted the pilot-interviews with the four different segments and in regards to what the literature had to say on the object. All of the informants within the pilot-interviews mentioned a distaste and almost a disgust for insects which were full-bodied and with legs, and if they had to try insects (none of them had), they would want it camouflaged and look like something else. This is in

correlation with some of the research results, as mentioned in the *Entomophagy* section. Furthermore, we chose products that would be fairly easily accessible for our informants, and other interested in edible insects, therefore limiting the products to those who could be bought in the two online shops *Din Insekt Butik* (Din Insekt Butik, 2017) and *Nemlig.com* (Nemlig.com, 2017). On these notions, we chose five different products which all represented a section of the insect products available to the common Danish population. These were:

1. Dare to Eat date snacks (small packages containing date cube's infused with cricket-flour.)
2. Bug's Kitchen Muffin Mix (a pre packaged muffin mix infused with buffalo larvae flour)
3. Buffalo Larvae flour (grinded buffalo larvae)
4. Frozen Mealworms (whole mealworms)
5. Frozen Wax Moth Larvae (whole wax moth larvae)



Picture 4: products from left to right: 1: Dare to Eat, date snacks, 2: Bug's Kitchen Muffin Mix, 3: Buffalo larvae flour, 4: frozen mealworms and 5: frozen wax moth larvae

A further description of the content of the products, can be found in Appendix 9.

Introducing the informant couples

The following section will introduce the food practices within our six informant couples. This is to get an insight into the couple's food practice and how they interact with food, before the introduction of the edible insects. We will present some topics, which are

of relevance for each couple's food practices. This means, that for some couples, topics such as their upbringing and childhood memories of food, where they tend to do their food shopping and their traveling habits, were being addressed during the interview, while being left out in others.

The six couples are, the three *without* children; Frederiksberg Couple, Lyngby Couple, Nørrebro Couple, and the three couples *with* children; Barritvej Couple (two children, age 3 and 5), Karirovej Couple (three children, age 14 and two 12) and Thuja Allé Couple (two children, age 5 and one 10 months).

The “Frederiksberg Couple”

For the Frederiksberg Couple, food plays a big part of their life, and they both enjoy eating food, cooking, trying new things to eat, both at home and when eating out or traveling and do not mind spending money on food. The household consists of a male (33) and female (34).

The Frederiksberg Couple's love for food is grounded in their upbringing. The male grew up with all home cooked meals, freshly baked bread for breakfast every morning. At dinnertime the meals were always warm, so for him it does not feel right to eat a bowl of müsli or rye bread for dinner. In the female's childhood home cooked food did also play a big part, where she lived some years throughout her childhood in Thailand. Food was always cooked from scratch in her home and *“semi-finished products paved the way to hell and microwave ovens were for people who couldn't cook”* (Female Frederiksberg, Appendix 6.4, p. 83). In her own view, living in Thailand probably had an impact on her preferences to Thai food, spicy food in general, and food containing lots of vegetables. She does not favor “traditional Danish food” or the European kitchen scene.

They both enjoy cooking and spending time in the kitchen and the male states that cooking for him feels like a time and place for “relaxation and disconnecting”. Some days the female do not feel like cooking and eats rye bread or yogurt with cereals for dinner instead, which, as already mentioned, the male do not enjoy to eat for dinner. In general they are both concerned with healthy eating, and meals containing lots of vegetables. However, most of

the meals are constructed on the basis of which meat the supermarket has and then builds the meal around this – at least for the male. The female mainly shops after what she feels like eating and then finds the items – with the dishes almost always still containing meat, but not with the meat being the center of the dish. They do sometimes prioritize to buy organic food, but both think that some items are too expensive in comparison to a conventional item. The taste of the food comes first, other factors (e.g. organic, certain brand) comes second. A hedonic side of the male is also present when he is grocery shopping. He prefers to buy a certain milk, because he thinks it looks enticing (Naturmælk red.). He would not want to buy the Budget milk from Netto and Føtex, because in his mind it does not taste as good as the other ones.

The "Lyngby Couple"

The Lyngby couple's food habits are of a pragmatic character, with a focus on cheap and healthy food, which fits well into a tight timeframe. The household consist of a male (25) and female (24) and they are both Master's students at the moment.

They have a tight budget to spend on food, so they use an app for making weekly food plans to save both money and time on grocery shopping. They try to buy most of their weekly food on one big trip and then supplies with smaller trips during the week.

The couple usually cooks dinner 3-4 times a week and sometimes they prepare big portions to heat up the next days for an easy dinner, to save both time and money. Breakfast on weekdays usually consists of oats with milk and lunch consisting of rye bread with either cold cuts, eggs or the like. In the weekends the male typically bakes cold raised bread rolls for breakfast. For dinner, they both state vegetables as being an important element in the dishes, and the male also mentions rice, potatoes or pasta as being important elements on the plate. They do not mention specific dishes they usually cook, but states that it is important that food is healthy and fits within their budget. They mention being inspired by Asian cuisines, and refers to this as 'use of specific spices'.

They also express concerns about the environmental aspects, thus introducing two vegetarian days a week, in order to eat less meat. For the male, it is important that the food is saturating and that the need for eating more is non-present, which concerns him

especially on the vegetarian days. Since the introduction of vegetarian days, they found it necessary to search for new dishes, since vegetarian food does not fall within the regular repertoire of recipes. The vegetarian days are almost always on weekdays, with the exception of some Sundays, where e.g. vegetarian lasagna could be found on the menu. The female states that “*vegetarian food is just not weekend food*” (Appendix 6.3, p. 70) and they do tend to eat healthier on weekday than in the weekends.

Neither the female nor the male feel the need to try new food items or unknown food items when ordering food whilst traveling. On a trip to Thailand and India, they tended to eat mostly vegetarian food or chicken, which they describe as being the “safe choice” on regards to both food safety (hygiene) and not wanting to eat foods, which are unknown to them.

The “Nørrebro Couple”

In the Nørrebro Couple’s life, food takes up a lot of space. For them, food is a pleasure, time is not, since they both have busy work schedules, with some periods more stressful than others. The Nørrebro couple consists of a male and female, both 32 years old and both are working at the same film company.

For the male, food plays a big role in his life and has become a part of his identity and he mentions several, sometimes contradicting, factors which are of importance to him on regarding food: eating organic, good quality, not being afraid of trying new things, cooking simple food out of good produce, while still cooking advanced food from his Aarstiderne meal scheme, eating more vegetarian food, and the list could go on. The male, to say the least, put himself in the center of the pre-interview, overwhelming us with how he perceived food, and what he thought was deemed eatable and not. He tells us, he eats (almost) everything and cannot come up with one single food item that he does not like the taste of. Not when we ask him firstly at least, but at later point he does remember one item which was not of his liking at all – the French delicacy andouillette sausage. The female describes herself as being vegetarian (pescetarian, as she does eat fish), as she does not enjoy the taste of meat and do not feel and urge to eat it. However, she does not describe

herself as being fanatic about not eating meat - and she would not mind eating insects, when asked about it.

Healthy and “fresh” food is mostly on the menu, as they like to eat this the most, but they tend to eat more unhealthy food in the weekends. Although the male eats “almost everything”, he is very much aware of what he considers being “real food” and what is not - e.g. food from McDonald’s is not considered as being “real food” to him. “Fresh food” is being considered as real food, whether this is being healthy or not. While some foods are not healthy, the couple still eats it if they regard it as being “fresh” or “real”, e.g. the male mentions sushi and some take-away stir-fried food as food items that is not necessarily “healthy”, but is still being considered as being “fresh”. They both enjoy eating good food, going out to eat and buying organic food of “good quality”. Organic food is being prioritized when shopping for food and the male does not feel like buying conventional foods, even if the organic version might be sold out “*...we could just not buy organic food... but it’s rarely that I want to not buy organic*” (Male Nørrebro, Appendix 6.5, p. 105). The same goes for the female, as she thinks organic food tastes better (and “*...off course, the environmental aspect...*” (Female Nørrebro, Appendix 6.5, p. 101)).

Every other week, they have a meal box scheme (Aarstiderne), where they get the vegetarian box containing three meals per week. They both enjoy cooking and the female likes to spend hours in the kitchen creating a meal from good produce, while the male mostly cook what he describes as being “simple food” that does not take the majority of the day to create. To the male, if the produce is good, the cooking hours do not have to extend the product in order to create a great meal. When he wants to consume a more “advanced” food (advanced being time here), he uses the box from Aarstiderne – or he simply goes out to eat that sort of food. He would rather go out to eat good and advanced food, than spending hours cooking it himself.

The “Barritle Couple”

For the Barritle Couple, food is characterized by being healthy, child-friendly and easy to cook, as it should fit in an everyday routine with two small children. The household consists of the female (29), male (33) and two children a boy (3) and a girl (5).

The couple prioritizes to eat two meals a day (breakfast and dinner) together as a family, typically oats for the children and skyr with fruits for the adults. For lunch the children get food in their daycare institution and the adults eat at the canteen in their workplace. Besides the physical act of sitting together and eating, it is also important for the adults that the food is easy to cook and that the children enjoys eating it – or at least eat the food without too much fuss being made. The male describes, that to them, child-friendly food consists of “classic family dishes” such as “spaghetti kødsovs”, lasagna, chicken, potatoes and the likes. A common factor for these dishes are, that it has to be easy to cook and easy for the children to eat and still be (somewhat) healthy. The dishes they eat for dinner are mostly build around meat (chicken and minced beef), so when the adults of the household are shopping for food, they tend to go to the meat section and select a product there. After the selection of meat, the rest of the elements, such as vegetables, potatoes, pasta etc., are found. Both the male and the female are currently eating and being physical active according to a program. They are trying to eat healthy and are avoiding food with starch (food elements such as bread, pasta, rice etc.). The children are not following the adult’s meal plan and are still getting served those elements. During weekdays, cooking, eating and being a family, while still wanting time as an individual for the adults, runs like a well-oiled machine; wake up, get up, breakfast together, work/daycare, home, cooking dinner together, children go to bed, adult time, sleep, repeat. So when weekend comes, the everyday routines of the weekday are “loosened up” (e.g. the adults are eating bread during the weekend) and the well-oiled machine tends to slow a bit down, creating space for “weekend-coziness”.

The “Kairovej Couple”

The household on Kairovej consists of female (42), male (41), twin boys Child J and Child La (12), older sister Child S (14) - and the dog Egon. Hockey practice consumes a

lot of time for the family, with training up to five times a week plus matches during the weekends for the three children. Despite shifting training hours, the household make an effort to prioritize eating two meals a day together – breakfast and dinner. So when it comes to food, it should be fairly easy to cook and not take too much time - there is simply not enough time within a day, resulting in some days squeezing dinner in between afternoon- and evening training, resulting in either eating fairly early in the evening (still being late afternoon) or slightly late in the evening after practice.

The Kairovej Couple describes their food habits as being “typical Danish food”, consisting of meat as the central part of the dish, with a side of potatoes or sometimes rice, vegetables and gravy - either made from scratch and the powdered “*Knorr*” kind. The male stresses the importance of having at least 800 grams of meat for dinner for the whole family, however, both the male and the female mentions vegetables as being important as well. While the male of the household does not have anything negative to say about trying new foods, it is another story for the female. She is not too keen on eating or trying new or spicy food, and in her opinion, food should “*taste as bland as possible*” (Female Kairovej, Appendix 6.1, p. 44). However, to a great extent the taste is not always the main reason, for not trying new foods for the female. After the male once tried a dish at a friend’s house he was keen on making something alike at home. So he created a slightly modified dish for dinner, containing a new ingredient for the household: ginger. He did not, however, tell the female about the new ingredient. The female could not taste the ginger, only that it tasted different and: “*new – but in a good way*” (Female Kairovej, Appendix 6.1, p. 52). At the same time she admitted that, had she known about the secret ingredient, she would not have tasted it. The other members of the family tease the female a bit with being a picky eater and she acknowledges that she does have a fear of trying new food items. She has though come to terms with this herself, in the sense that she do not feel the need to challenge this fear, for the sake of challenging it. However, she does not wish to pass her own “food-fear” on to her children.

The “*Thuja Allé Couple*”

As seen with the previous two couples with children, the Thuja Allé couple’s everyday life runs on “routines” where time for interfering with those can be scarce. For the

Thuja Allé Couple, female (34) and male (38), having two younger children, boys (5) and (10 months), and a dog Liva, with the female being half on maternity leave, food sometimes come down to being practical.

The male leaves the house early in the morning after walking the dog, leaving the caretaking of the children in the morning up to the female. She describes her mornings as being a “routine”, where she does not always have the time to eat herself – it is more important that the children eats breakfast, usually oats with milk or a bottle for the youngest, and that she has time to prepare a lunch for the oldest child, during a morning of time-scarcity. During the day, it is important for the female just to get some food, which is easy to eat, while still being (somewhat) healthy. At the moment, this can sometimes result in her eating fishcakes from the supermarket, straight from its container, because: *“I can eat them with one hand, while having to youngest resting on the other arm”* (Female Thuja Allé, Appendix 6.6, p. 115). The physical settings for the males work are shifting and there is not always the possibility for putting a packed lunch in a fridge. So he finds a place to buy his lunch, usually a salad from the supermarket, 7/11 or the like.

The meals they eat are mostly build up around the meat and mention other elements on the plate (rice, vegetables etc.) as trimmings or additions. They state that they like Thai-food, with no specifications to what that consists of, but otherwise do not mention a specific cuisine that they are inspired by. They both agree that vegetables are very important, and should always be present in a dish. It is also important for the female, that the children are introduced to a large variety of vegetables, so the female tries to plan ahead, to create variety, so they do not end up with having the same dishes too often. The visual aspect is also of importance for her and she tries to color-coordinate the dishes she cooks. The male is more of a pragmatic eater, and he could easily eat the same ten dishes and then start over – for him, everyday food is more of a fuel element, rather than a mean for pleasure. To his concerns, the majority of his meals could consist of chicken, rice and vegetables and repeat. While he do appreciate the different dishes being served, was it not for the female wanting variety, he could just as easily eat the same food, thus making variety in what they eat less important. The female is fed up with “traditional Danish food” consisting of meat, boiled potatoes and gravy, as she, in her opinion, has had enough of that type of food throughout

her childhood (Female Thuja Alle, Appendix 6.6, p. 120). They do not cook that at home, so their eldest child, who loves that kind of food, always eats a lot of it when they are visiting the female's mother.

Sum up

In the last few pages, some of the food practices for our six informant couples have been introduced. Some topics have gone through all the couples, others have been secluded to the specific group they are a part of - children or not. For all the couples, living a healthy life through food have been emphasized as being important to them - whether this has been through a diet of vegetable or the thought of only buying organic produce. We have had a household of five people (and Egon the dog) from *Kairovej* (Appendix 6.1), whose everyday life evolved around the children's hockey practice, and therefore eating at specific hours in order to cope with a busy schedule. Within this household we have also seen a female, whose need for new and exciting foods equals to a zero. We have had a couple on *Frederiksberg* (Appendix 6.4) where interactions of food consisted of creative freedom and where new and exciting food were welcomed in abundance. A household of four on *Barritvej* (Appendix 6.2), whose main goal were to please the children and the routines of the house, whether this was with a tight and reliable list of recipes or through a diet containing no starch (except for the weekends, of course). A household of two in *Lyngby* (Appendix 6.3), whose main goal were to survive on a tight SU budget, while still making delicious and sustainable food. We have had a household of four (and Liva the dog) on *Thuja Alle* (Appendix 6.6), where the need for a healthy and giving food scheme triumphed the wishes of the children, with two different views of how the daily food practices should be contained. And lastly we have had a couple on *Nørrebro* (Appendix 6.5), which lives have revolved around food for some time, whether this being through a vegetarian approach or dinning at fine restaurants. All couples have given us the notion, that there is a lot to dig into when it comes to insects as a food item, and the analysis will do exactly that.

Analysis

Analysis strategy

Every sane person needs a strategy when it comes to analyzing the data collected through the various methods, and even though we do not feel completely sane during this process at the moment (half way through the writing of the thesis), we as well have adapted a strategy.

As complex as the chosen theory (multiplicity) is, it has provided us with a way of how to go about our analysis. Neither inductive or deductive, but an abductive way, with space to play around (Mirza et al., 2014). Through our methods of semi-structured interviews and with the help of photo elicitation, we have tried to navigate ourselves through the data with as less interference as possible. The intent with this analysis has been to investigate what some enactment of the edible insect has done and brought to the field of future food objects. A mapping of the *if's* and *how's* have been highlighted as a result of the empirical data, and the beauty of semi-structured interviews have certainly helped to unfold these. While there are questions meant for opening the interview and ensuring that the "most relevant" topics are being opened, some of the questions have also opened the door for new topics to unfold themselves, that we (at the time of the interviews) did not realize could be of relevance or were simply not thought of. Then again, *what is* being considered relevant? Can any actions and interactions be deemed not relevant, do they not have meanings and value attached to them? Does every action we take, have meaning and applicability to them – and if not, *how* to distinguish those actions and interactions of relevance, from those that are not relevant?

We wanted to let the empirical data in our transcribed interviews do the talking. We sought out for our informants to take an explorative approach when interacting with the products provided by us. A relevant notion we thought would see the day of light within the couples, was the disgust factor, which the state of art on entomophagy clearly stated, could be a hindrance with implementing it to the West. A notion we did not expect to see were the resurrection of the edible insect. Several females within our couples, reported the insect coming back to life, after either ingesting it or cooking it. This was unfortunately not followed up with questions at the time of the interviews, but a thought occurred to us

afterwards: would it be the same, if we had provided them with a whole chicken or a small pig? The abductive research strategy helped us make the surprise a little less surprising during the interview. As said, we set sail with the knowledge and theory provided by Annemarie Mol, and through our pilot-interviews we got a feeling for what to come with this ship. With our pre-understanding of what to expect after we decided on which harbour to set sail towards, we went along with the six couples presented earlier, and interviewed them pre- and post insect products. Through the interviews and observations created by the photo elicitation, an arise of new speculations was risen once we got the chance to go deeper with the empirical material, and the result is presented henceforth. With that in mind, sit back and let the analysis begin.

Edible vs. Eatable

As mentioned in the *Introduction* and State of Art on *Entomophagy*, according to the Wageningen University in Holland, there are approximately around 2111 edible insects (Jongema, 2017). This means that out of multiple quintillion species, a couple of thousand are deemed accepted as edible. But does this mean, they are also *eatable*? Our focus throughout our thesis (if that have not been made clear yet) is to see which enactments the edible insect enters with six different couples within the greater region of Copenhagen, and see how the insect is enacted with the daily practices of the different couples.

To begin with we would like to take departure from the Oxford Dictionary, to get a static explanation of what the two words accommodate (we know we said in the Introduction that this would not be a common thing and this goes against our theoretical framework, but we felt the need to be a little rebellious at this point). The word *Edible* is described as: “*Fit to be eaten*”, whereas the word *Eatable* is defined as: “*Fit to be consumed as food*”. As, with almost every object known to human, the words *edible* and *eatable* can be enacted through multiple realities. This means that one reality is not given, and that the meanings of the two words can have different interpretations - it all comes down to how it is being enacted. We will make use of the static interpretation of the two words, which will mean that the word *edible* is put in front of insects that are *fit to be eaten*. As we have seen with the different couples contributing to this Master Thesis, not all of them are *fit to be consumed as food*,

and this will be the static explanation of *eatable*. Through pre- and post interviews, combined with a documentation through pictures, we have heard and seen how the different products given to our informants, each fulfilled its own reality. Some have intertwined and meshed into creating a multiple reality of the given objects, others have become fluid thus creating a new reality of the object. Several ontionorms have been located and analyzed in order to give us and our audience a greater understanding of how the edible insect can exist in *some* Danish households. We have assembled our analysis as an - one could say - *eatable* (insect) sandwich which are containing every great component a sandwich need to have:

- The top bread: *Edible vs. Eatable*
- The tomatoes: *Insects is/as "langhåret"*
- The (insect)meat: *Insects is/as Food Practices*
- The lettuce: *Insects is/as "Korthåret"*
- The bottom bread: *Eatable vs. Edible*

Every sandwich needs a bun, something to hold it together. The top bread is meant as an introduction to our analysis, where two major components, *Edible vs. Eatable*, are introduced (as you have just read). Second comes the tomatoes *Insects is/as "langhåret"*, which introduces an understanding of *some* of the complexities within the insects, that exist for our couples. Not all sandwiches necessarily need tomatoes, but it does make it taste better and complex, and gives it a more in-depth taste. So does this section; it provides our analysis with a more in-depth insight of our couples complex views of edible insects. The meat, the core of the analysis; *Insects is/as Food Practices*, is where we seek to analyze upon each couples interactions with the given insect products and to see how they enacted with them. This is to see where (and if) insects would fit in their food practices, which were stated in the previous section. The lettuce, *Insects is/as "Korthåret"*, is where we round up the complexities and analyze upon the enactments with the insect products given to our informants. Every sandwich need something healthy, and this is exactly what the lettuce gives us. A clear conscience that it was okay to eat the meat before. It would not be a

sandwich without the bottom bread. *Eatable* vs. *Edible* seek to give closure and round up our analysis, and holds it all together (with the top bread).

Insects is/as “*langhåret*”

To start it off, we would like to explain the Danish word “*langhåret*”. In its purest form it can be translated as being ‘long haired’, but as with the basis of our theoretical framework, several interpretations can be noted around this exact phrase. When something is ‘*langhåret*’ it can have a meaning of something being a little too imaginative, unrealistic, something that is complicated and unrelatable or something that is far-fetched. To many of our informants, the insect was exactly that - something that is complicated to apprehend and to many of them, something that as a food item was far-fetched.

Insects as a food item is an odd object to dissect and can be as complex as the human brain itself. In some relations, it is a delicatessen with a rich history as a palatable food item, to others it is a pest that has no business being on the dinner plate, and to a few it can be both, meaning that several realities can and will become fluid. To our informants, several realities intertwined with each other, once we supplied them with the edible insects.

Insects is not a food item commonly found in the Danish supermarkets, but is slowly making its way to the counters, though still as a novel food item. The products that were introduced to the six different couples, ranged between snack items containing processed non-visible insects, to whole insects which needed to be prepared. To our informants, the insects were not just a food item that needed to be prepared, it became a choice to succumb to the choice of being a part of something bigger. Very few of our informants had willingly sought out insect products in the supermarket, and the one that had, did it as a gimmick for his brother's birthday celebration (Nørrebro male, Appendix 6.5, p. 108).

The Ad...

In order to get a feeling of what our informants thought of insects as a food item we asked them during the pre-interviews, and the notions were as versatile as the individuals

answering them. One of the children from the couple at *Kairovej* first response, when asked what he thought of insects as food items was:

"Ad.. I am thinking Ad" ("Ad" is a typical Danish child expression when something is disgusting- similar to the English expression "Yuch").

(Child J, Kairovej, Appendix 6.1, p. 46)

We observed though that Child J, was one of the first to open up the date snack and taste the product. Whether it was because he was hungry, wanted to impress us or he found the product exciting, different realities had come to life within a short period of time. Another approach to it, could also be that the snack bared a resemblance to something eaten before- a form of familiarity was found with the cake-like snack. If we attribute Fallon and Rozin (1983) statement of the three dimensions every person goes through in order to accept or reject a new food item, a sense of understanding the cognitive mindset of what the child went through can be analyzed. The first dimension, *danger*, did not appear when the snack laid in front of him just waiting to be savored. It clearly looked like any other date snack or '*romkugle*' (a Danish cake speciality) that had been tried before. The second dimension, *distaste*, was overcome once he had smelled and tasted the snack, and as was witnessed by us, no facial expression was made that bared the notion of disgust. The third dimension, *the knowledge or origin of the substance*, was conquered even before he had tasted or smelled the snack. He was told by his older sister that the snack contained dates, chocolate, chilli, almonds and a small amount of insect flour, and by the looks of it, the other 'normal' ingredients triumphed the small amount of cricket flour that could have caused some form of malice. What started out as being a '*langhåret*' notion, something that was unrelatable at first, ended out being a challenge of some sort and perhaps something relatable. Thus creating multiple realities based on the insect food item, combining the negative understanding of the object at first with a challenging conception of what is normative to eat.

The same perception can be noted when speaking of the child's mother. She was the one in their family who had the most difficult challenge to overcome when being presented with

the insects. When asked if they were willing to participate in this project, she instantly compared the request as if she was to join the reality show "*Robinson*":

"I think we associated those insects with that television show 'Robinson', where they get served those big plates ... and then they have to eat them..."

(Female Kairovej, Appendix 6.1, p. 47)

As with her child, having a strong opinion at first, and the one being the most disgusted with the notion about the insect as a food to begin with, she eventually ate the head of one wax moth larvae, contradicting what was stated in the '*Food acceptance and rejection*' state of art. Martins and Pliner (2006) states that the head of the animal is normally left untouched as it resembles the origin of the food, and a motion could be made that the larvae did not appear as an animal per se, but as a challenge to herself that she could or should overcome. Two separate enactments transpire when she begins to test her own will. She is aware that the larvae is a creature she resembles to not be affiliate with food, but takes on the '*Robinson*' similar endeavor.

The edible insects made its impact on the mother even before they agreed to participate in our research. Without consent from her own family, she volunteered them all to be a part of our Master Thesis project, not knowing it would revolve around insects as a food item. When told that the research would ponder around that specific object, she immediately regretted her choice, and told us, that she had to consult her family first before agreeing to partake in the experiment. From there, her thoughts started contemplating around the notion that she had made the choice to submit her family to a game of *Robinson*. As seen in the above statement, that notion, being a contestant in a game show carried through, and even when she tried the different products, that reality persisted along with the new one. To her, tasting the insect was a task that needed to be dealt with, so her sense of picky-eating would not contaminate her children's eating patterns:

"... I would consider it heavily, if I should take a bit or so, but just as much so it would not rub off on the children, if I sat there and wrinkled my nose.. I think it would be a pity if they inherited this from their mother..."

(Female Kairovej, Appendix 6.1, p. 48)

She stated through both of the interviews, that she had a hard time trying new things, and the male recipient of the couple added to that notion, saying that if he wanted anything that resembled a cuisine, different from what she was brought up with, he had to seek elsewhere - going to friends or ordering take-away. For the female, knowing that she was on the brink of winning or losing a contest on the *Robinson* show, had to overcome her pickiness and the essence of '*langhåret*', and win the grand prize of her setting a good example for her children's future eating patterns.

The Delicious Muffin

For the couple with two small children on *Barritvej*, the participation started after the male companion had concurred to be a part of the project - but did so under the influence of several glasses of red wine. The persuasion of the rest of his family to participate as well started immediately, but a decisive answer did not come until a few weeks after (several inquiries from us was made during the weeks to come). At first, his better half, would have nothing to do with insects as a food item, but capitulated in the end and agreed to participate as long as we promised that she would not have to eat the products if she did not feel for it. This started becoming '*langhåret*' even before they agreed to participate - maybe not as much for the male part as for the female, but the pre- and post-interview would definitely give us an insight into the possibilities of how the insects could be enacted as either edible or eatable. During the pre-interview when first asked what the couple thought of insects as an edible object, our preconceptions were answered by what the female thought:

"Nothing delicious, [if] I got be honest.. the thought of insects, which have just crawled around on the floor and then something that I have to put in my mouth, that I can not really... I am having a hard time with that.."

(Female Barritvej, Appendix 6.2, p. 60)

Another reality were sidelined with the notion, of having a hard time with eating insects, when the couple decided to interact with the muffin-mix provided by us. They were the only couple who added more ingredients to the mix (blueberries and chopped almonds), and the female noted that the experience was not as transcendent as she thought it would have been. Several realities coexisted at that point, and created a consensus that this was a delicious baked snack, despite containing flour made of buffalo larvae. When disguising the insect as a normal ingredient, in this case flour, it bears a resemblance to the paper by Angyal (1941), where he states that certain cultures camouflage the origin of the animal in order to make it more palatable. This might have made it easier for the female to taste and like the product, for when it came to try the whole insects, we were back to the first notion on the insects being alive. When describing how the male prepared the mealworms and wax moth larvae, the female stated that she only tried one and even corrected herself by saying that it was only half of one mealworm. She then goes on to describe how her emotions took over:

"I think I blushed a little bit, I had a really difficult time about it. Really difficult... You could just see the whole insect, just laying there. I could have as well just have clipped it one, and then it was dead and I could have eaten it."

(Female Barritvej, Appendix 7.2, p. 145)

Different realities took place with the enactment of the object, as she watched the processed product come to be alive again, and compared it to a pest that she had to kill all over again, and then casually eat it afterwards. This exact example would probably not have happened, if the product would have been a whole chicken, but lack of that specific question, it will only be hearsay. So what is it that makes the insect, a food object as the chicken, come to be alive again and not the chicken itself? As Fallon & Rozin (1983) states, there can be given two reasons as to why a food can be accepted or not (there are undoubtedly more reasons than two, but to humour Fallon & Rozin, we will elaborate on one of these). The first reason mentioned by the two, is that the given food item is not accepted as an eatable object within the given culture, and this notion can certainly be

added to why the insect came back to life. To the female, growing up with a traditional Danish food cuisine, the insect per se is not something that is deemed natural to eat, but more of a pest that needs to be squashed if stumbled upon, thus enhancing the ontionorm of the insect as not being a food item within the Western hemisphere. The networks present within this ontionorm is based on relations formed by the precursors in her life. The tradition of eating insects have not been present within the Danish cuisine, and are only made possible now that the networks of the insect has reached the far corners of the north.

This inherent feeling could have been the catalyst for her to see the mealworm reincarnate on her plate, and might not have, as the speculation goes, been the same for the chicken as that can be deemed a household possession within the Danish cuisine.

The Popcorn & The Cockroach

When asking the couple from *Lyngby* the same questions (what they thought of insects as being a food item), the answer from the female were that a lot of people in Africa eats insects, and to quote her: *“that is good .. for them”* (Female Lyngby, Appendix 6.3, p. 74), while making a non-vocal facial expression that can be interpreted as disgust. Giving the notion here, that this is not a thing that is a part of their food culture, but something that belongs in other parts of the world. When asked if they have tried insect based products before, they both answered yes. The male, as a gimmick at his university, and the female during a course at “Skoletjenesten” where she works as a teacher. Both products were mealworms, and the female states that she does not have a problem with them, even resembling them as popcorn that has to be fried on a pan. It seems there are different levels to what can be considered deemable to eat - if it taste like something that is familiar, she does not seem to have a problem with it, but if it is something that she has not tried before it is a food item for a different part of the world. The introduction to the question of what they thought of insects as a food item, started when they talked about their travels abroad and what different kinds of food they had tried or eaten on a regular when traveling. There are certain things she would not want to touch with a ten foot pole, ranging from intestine and pets to cockroaches.

Where mealworms is related to a snack of some kind, a cockroach is referred to as a pest of some kind, and has been witnessed by the couple running around the hotel premise when traveling abroad. For the female part of the Lyngby couple, several realities emerged when discussing this food item and the enactment of the insect is a determination for her, if the insect is deemed eatable or edible. A popcorn on one hand, a pest on the other, but still coexisting within each other making the insect product a bit '*langhåret*'. All three dimensions that was stated earlier in the *Food acceptance and rejection* State of art, revolving the understanding of any food being accepted or not, can be applied to her notion of at least the cockroach, the mealworm can only be a speculation from our view. As mentioned earlier, Fallon and Rozin (1983) identified the three stages - *danger, distaste, and the knowledge or origin of the substance*, as being stages an individual had to go through before a decision could be made. As we were told, the cockroach bared a resemblance to a pest, crawling on a hotel floor, and not knowing the origin of it either, but the same can possibly be said about the mealworm as well when it was presented to her for the first time. The mealworms were tried under 'secure' circumstances at her work at "Skoletjenesten", where it was part of an introduction to school children about the possibility of introducing new food items to the Western world (if it have not occurred yet, this is what this Master Thesis sort of is about as well). As the teacher, she had to overcome her own rejection of the object, in order to set a good example for the children, and this might have been the distinction between the two different insects - a mealworm in a secure and verified space, or the cockroach running across an unsecure floor in a different country. Thus creating an ontionorm that food items from a verified and prepacked parcel is more safe to eat than a object found in the wild. The networks within the verified edible insect, free from bacteria and regulated within the European Union, makes it okay to dare and eat a mealworm, whereas the relations a free-running cockroach create, is enough to shatter the concept of an edible insect. This makes the edible insect a fluid object, since the different networks do not uphold the bond they might have shared to begin with - being both an edible insect.

The Exploration

The question of how the couple at Frederiksberg viewed insects as a food item before we contacted them, were left out of the pre-interview due to the fact that the conversation were led on by the factor that they had just returned from a vacation to Thailand. If it was because they knew that an interview with us was going to happen or not, the couple dove into the markets at Khao San road (a street in Thailand famous for different sorts of gimmicks, edible insects being one of them) in search of an insect experiment. Since the female part of the couple has had some of her upbringing in Thailand, one would think that her view on insects as a food item would be somewhat normalized when seeing the different insect street vendors, but it was quite the opposite:

“...It's a bit of an unsavoury animal, well one would feel that, it's beetles and larvae and things like that, and then they stood in such a dingy place ...”

(Female Frederiksberg, Appendix 6.3, p. 91)

She then goes on to describe that at the vendor, several processed bags of insect chips were sold, and she would be more willing to buy the processed bags than the freshly battered insects. She referred the object of the bag as to have been verified at some point, and that she would have a better chance at eating those than the whole insects. An ontoterm of some sort is created here, as partly seen with the *Lyngby Couple*, since the same object is enacted differently. It suddenly matters which enactment of the object is at hand, and that one of them is regarded as a more positive experiment than the other. Even though being brought up in the environment where insects are recognized as an eating, the thought of buying it from a local at the market was as far-fetched as it could have been. An opposite reaction to the same experience occurred to the male part of the couple. He, being brought up with a 'traditional' Danish food culture (though heavily fused with an South-East Asian scene to it), dove straight into the products of the vendor, unaware if the insects would taste good or not. An agreement between the two, had been to experience a new and different food object everyday while they were abroad, so for him it did not matter if it was processed insect food or a freshly battered product. It did however matter which insect were served, cause a line were drawn with the likes of cockchafers and not with the likes of

grasshoppers and mealworms. The cockchafer was not battered or fried, but the mealworms and grasshoppers were, giving the notion that it could have been the cockchafer if only it had been battered. A perfect example of why insect can be deemed as '*langhåret*', on the one hand it is an object that is exciting and considered as an exploratory food, on the other hand a clear notion of what is deemed eatable - the cockchafer in its natural origin was not presumed appetizing, the other two were. This reality though was challenged once the couple received the whole insects from us to prepare. The male stated that the wax moth larvae bore a parallel to maggots found on corpses in action movies (giving the notion of something not eatable), but once tasted, the reality had changed once more. What started out as a by-product of a cadaver turned into a delicious food dish from Thailand as seen on picture 13 (Appendix 8.4).

The Gimmick

A gimmick was the first notion mentioned, when asking the Nørrebro couple of what they thought of edible insects. The both of them had tried insects as a food item before when traveling abroad; the female while she was still a child at the age of 14 visiting South Africa, and the male part when he was traveling around Asia with friends. The female had only tried insects this one time before, but the male part had tried edible insects in Asia, as a cockroach on a stick, in South Africa as a part of a dish and in Denmark where they were served alive on restaurant *noma*. As a gimmick, he had also purchased a glass of processed mealworms, to give to his brother as a birthday present. The female described the taste of the insect (she can not remember which species she had tried), as an earthy taste, and the male part could not remember the taste of any of them, but kept referring to it as a gimmick that only served as a fun thing to the dish. When interviewing them, the notion of edible insects did not seem to have any other significance other than being a gimmick, that might have heightened the gastronomical experience. The male part especially, is a frequent visitor at new and upcoming restaurants, and when asked if he would try insects again at a restaurant, he replied with a simple "yes". The reality that occurred was that insects are deemed as much as a food item as any other ingredient (even though he did not remember, or had noticed, the taste of the insects he had eaten before) and the notion of being an item

that was far-fetched or unreliable did not occur. The reality, when the product we gave to them had to be interacted, were completely different and will be elaborated upon within the *Insect is/as Food*, but for now it seemed to us, that this couple would have the least complications when it came to our insect products.

The Bicycle snack

The gimmick comparison was also hinted at the couple from Thuja Alle. Only one of them had ever had a thought about edible insects, even though the both of them had been to Thailand several times, where they had seen them. The female's aunt had posted a picture on Facebook of a insect product, and referring to them as being a snack. The first thought that came to mind for the female, was for the aunt not to serve them as a snack, the next time they visited. The male part though responded to the question of, whether he had tried insects before, with: *"...not on purpose at least"* (Appendix 6.6, p. 122), hinting that his experience with eating insects had only occurred when riding his bicycle with an open mouth. Thereby stating that the only enactment he has had with an edible insect has happened in a negative (or positive, depending if he liked the flying surprise) way, thereby creating a new reality, we as researchers had not thought about.

When presented with the hypothetical question, if he would have any sentiments regarding a baked good containing insect products, he evolves the hypothesis and compares it to a raisin bun. If he knew what and when to look for the raisin (or insect) in a bun, he would not have any problem with eating it. To him the negative side of it was the moment of surprise, not the actual raisin - or hypothetical insect, for that matter. When being presented with the products provided by us, the female reacted by searching for some sort of verification from our side, whether this would be acceptable to eat or not. She kept asking if we had tried the products and what we had done with them, and though remaining sceptic when we did not provide her with the answers she sought for, she assured us that she would try all of the products. As with the females of both Lyngby and Frederiksberg, the same search for verification was observed with the female on Thuja Allé, further enhancing the ontonorms of verification that tend to reside with the Western world. The same networks

and relations that bonds the edible insect to being something that is safe, is sought after by asking us if the products were safe to eat. However, when having to interact with the products, as further elaborated in *Insects is/as Food* section, the assurance given to us had vanished and the reality of scepticism remained.

Sum up

Even before receiving the different products from us, each couple have had their shares of different views and takes, on how edible insects is enacted, and each couple and individual have experienced diversification when talking about the object. We have seen a repulsion being developed into a curiosity, and a mother comparing the experience to a gameshow. We have witnessed the rebirth of a mealworm, turning into something that might as well could have been clipped by the informant herself and then eaten eventually. A notion of the edible insect being compared to a popcorn snack, while another reality happening when witnessing a different insect scatter across a floor at a hotel abroad. It has been sidelined to an unsavoury animal, to the legacy left behind by a dead fictional character in an action movie, moving from a gimmick to an unwanted snack while riding the bicycle. Many different enactments and many different realities has been seen to interfere with each other, and as noted this has only been from the first question regarding the insect as a food item. If the insect is '*langhåret*' now, it can almost only get more complicated and far-fetched when we reach the next stage.

A main theme that occurs within all of our couples is the notion of insects in general as being something negative, not just insects as a food item, but insects in all aspects - at least what they have mentioned. Two of our informants had to ask "permission" at home prior to agreeing in participating, already indicating the negative perceptions of edible insects before it had entered their homes. For most of the couples, the notion of eating insects as being an enactment that is happening across the world is accepted, just as long as it stays out of their kitchens (to a degree at least). To us, the researchers, this has been an object that has already granted us an understanding of how an insect based product might interact within six normal couples everyday lives, and the next sections of this analysis will show the different enactments and realities that came to be within the different arenas.

Insects is/as food practices

When providing the couples with the insect products, the initial idea was to see whether these would (or not) fit into their everyday food practices. We approached this by choosing an explorative manner, allowing our informant couples to, well, explore the products at their own hand in their own food practices. However, before the insects can take part in the couples food practice, it must be just that: food. At one point, all of the couples accepted the insect products as being acceptable to eat, overruling other realities of them - the insects are, to a certain degree, edible. An explanation to this could be, that the insect products were enacted through familiar dishes (e.g. bread, popcorn, cake), another could be that they came from a notion, by us the researchers, that this is deemed acceptable as a food item. For others, the acceptance did not come with quite the ease (or at all).

A common factor which passes through almost all of the couples were *time*. Many of the informants did not feel they had enough time to try and use the products, let alone use *all* of the products, within the timeframe they were given by us. Like the female in the Lyngby Couple said “...we wanted to try all of the products, but at one point it gets like ‘pew, no more insects!’” (Female Lyngby, Appendix 7.3, p. 155) and the male exemplifies this further by saying (laughingly) “...we didn’t want to eat insects every day... we thought it was too much to eat insects at both breakfast, lunch and dinner...” (Male, Lyngby, Appendix 7.3, p. 155). Another common factor throughout the couple’s experiences with the products was that the males seemed to manage the insect products with more ease than the females did. Several of the males had a more pragmatic approach towards entomophagy and accepting the insects as being food. While all of the females did accept the products as being a food item at one point or the other, the transition of the whole insects from being *edible* to becoming *eatable* where almost non-existing, with an exception of few. This notion correlates with the report and survey from Videbæk & Grunert (2017), the articles by Hartmann & Siegrist (2016) and Verbeke (2014), where men were more willing to include insects as a part of their diet, than women.

A distinct factor noticed within the couples with children, were that it clearly depended what age the children, and how inherit the food practices were within the given kitchen, if they deemed the insect a food item or not. At the Thuja Allé couple, the youngest of the children were still on a fluid diet, but the oldest one had clearly been influenced by the couples feelings toward edible insects (or should we rather say the mothers feeling). When offered a fried mealworm by his father, he clearly thought it to be a practical joke, and would have none of it. The children at Barritvej, a young boy at the age of two and a girl at the age of six, were a little more courageous even though they were the couple, were the female had to be persuaded before agreeing to participate. One could have thought, that the female's strong sense towards the "*langhåret*" practice, would have influenced the children but it did not seem so. The youngest one did not seem to have any concerns eating the whole insects, mimicking the Male at Barritvej, after he had tried it. His line of thought had not been compromised in a sense, where the insects are creatures of disgust or to think anything else of them as food items, as he had been presented to them as being food items. The oldest one tried a few without showing any sign of disgust, but still with hints of skepticism. The children at Kairovej, were a little older than the rest, and were the only ones who were interviewed on the same basis as their parents. As presented, Child J of the three, had a strong notion of repulsion towards insect as a eating to begin with, but actually turned this notion around to be one of proving himself not scared of the edible insect. The oldest, Child S, were more interested in the cooking practice of the insect than actually in the eating practice

As already mentioned, at one point the couples all accepted the insects as being edible, while it was a little bit more tricky to others. To some, the products were accepted as any other food ingredient that they know and love, to others the product came to be alive again and had no reason to be in a kitchen. This created multiple enactments of the same product, and will be elaborated upon through the next sections by our fierce exploratory couples.

"It smelled like farts!" – The Frederiksberg Couple

For the Frederiksberg Couple, cooking and eating the products we had provided them with, only had a few obstacles. They managed to try almost all the products, with the exception of the buffalo worm flour, and it was only due to time issues, that they did not use the last product. It was primarily the male, who cooked with the products, but

no particular reason for this was given (or even considered being asked). We can only speculate here, that this is because of the males love for cooking and not wanting to eat cold food for dinner, where cooking a warm meal for dinner is being higher prioritized in a busy schedule, than for the female. The couple *did*, however, take photos of their interactions with the products and the dishes made from them. Some of the photos were set up neatly and as the male put is “...it is a bit Instagram-ish...” (Male Frederiksberg, Appendix 7.4, p. 169 & photo 7 Appendix 8.4) referring to, how he had arranged everything on the pictures. The self-expression of the preparation of the dish, latches on to a hedonic side of the male (Thompson & McDonald, 2012), which can also seen to be applicable in the next section, with the role of the aesthetics. His hedonic side is furthermore expressed in the *act* of cooking which can be said to be embedded in him through his upbringing (Chandon et al., 2000).

For the male, aesthetics has a role when it comes to food (hence the preference of a certain milk, due to its appearance), which is also applicable when it comes to displaying their experiences with the insect products. Here the object becomes something different from what we have observed before. Instead of just being an insect, it becomes something of a status symbol, that needs to represent the males overall attitude towards how things need to be: orderly and in coherence with each other. A speculation from us could be, that this would probably have been the same if we had given them a chicken as well, thus making the insect a food object as any, but also a symbol of status. No further questions was asked upon this, so again this is only hearsay.

The female stated that foods containing too much fat, gives her stomach aches and she prefers to eat Thai- and Asian food. She connects this with being healthy, thus eating *healthy* is enacted through eating Thai- and Asian food for her. In the male’s opinion *taste* is more important, than the level of healthiness. In his own words he does not want to eat healthy foods for the sake of it being healthy, as he would be “*bored in his mouth*” (Male Frederiksberg, Appendix 6.4, p. 84) and he “*would rather poison his palate... than eating boring food*” (Male Frederiksberg, Appendix 6.4, p. 84). Though eating healthy food is still

important to him, this is creating conflicting realities for the male: while eating healthy is important him, the enjoyment of taste comes first.

When it comes to the actual *taste* of the insects and insect based products, they had few conflicting experiences with the different products. They both loved the date snacks (which the male ate the majority of without sharing with the female being okay with it and stated “he does that a lot”) and the muffin mix as well and had good experiences with one of the whole insects. The female thought the date snacks tasted like every other “*healthy candy*”, which she elaborated on being the taste of dates, cocoa and “*chocolate-ish thing*”. The female’s enactment of food through “healthy” produce emerges here, with her liking the taste of “healthy candy”, while the male just eats them (all). As with the date snacks, so it was stated that the muffin mix as well were in the category of positive experiences; they both loved it and they regarded them as any other cake, with no thought to mind about it containing insect flour, and even served them to others (who also loved them). The couple also cooked a dish with chopped wax moth larvae (Appendix 8.4, 6). They both loved eating the dish and described it as being “*fitness bolognese-ish*”, merging their enactment of “healthy food” with the object, the wax moth larvae, into a fluid reality. The larvae had a meat-like texture, which the male at one point described as:

“...like when you eat a pomelo and you have one cell left and then break it with your teeth, it is kind of the same feeling you have with the wax moth larvae...”

(Male Frederiksberg, Appendix 7.4, p. 171)

The wax moth larvae did not have any distinctive taste, other than the taste of the whole dish. They had added spices and other taste givers “*...so the dish didn’t taste of insects, but you still get a source of protein...*” (Male Frederiksberg, Appendix 7.4, p. 173), suggesting a bodily for the body (Mol, 2012). At this point they had not tasted the wax moth larvae, but still felt the need to hide the taste of the product itself. So while the wax moth larvae were accepted as a food item for the couple, it came with a twist: on the one hand, they do not have a problem cooking with them, touching them, chopping them or eating them – they in fact loved the dish they created. On the other hand, they also added spices to the dish, so it

would not taste like insects. So, why did they feel the need to hide the taste of the wax moth larvae?

To get an insight and understanding of this, we need to rewind the experiences the couple had with the product. Before experimenting with the wax moth larvae, they made a dish with the mealworms (Appendix 8.4, 9-16). The male had found a recipe on a Thai-inspired dish, but replaced the meat with mealworms. The dish was being prepared: vegetables chopped, spices lined up, rice set to cook and a beer on the side for the chef, all was well. But when the mealworms had to go in the pan to fry, something changed; the female had issues with the smell of the mealworms, as they resembled her of flatulence. She explained to us that it was the same smell, which came from the dingy insect vendor in Thailand (as explained in *Insects is/as "Langhåret"*), and she did not feel like eating them after this trip down memory lane. Hence enforcing the bonds the networks created abroad, reassuring her that the verified insect product were the same as the freshly caught insects in Thailand. The networks had made the trip across the continent to the small apartment on Frederiksberg, and suddenly the mealworms could no longer be enacted as a food item, but was now enacted through the experience she had with the insect vendor - the mealworms had changed its position as a food item and were morphed into something else – as being dingy. The female had rice with soy sauce for dinner that night. For the male, the dish containing the mealworms were not as good as the dish with the wax moth larvae. The larvae absorbed the sauce and flavors it was cooked in, thus being an integrated part of the dish. The mealworms did not integrate with the spices and sauce, but more so coated the mealworms rather than being absorbed by them. He did however see the possibility of the mealworms as a crispy snack cooked with some spices, opening up to the mealworms still being a food item. The enactment of the mealworms, as a food item, is depending on the method of cooking, not sole relying on the item itself, but is also capable of re-establishing "old" relations as seen above. For the male, this created multiple, coexisting realities of the enactment of the insects as a food item, while it, however, for the female created a shifting reality of the mealworms being a dingy insect, replacing the one as them being edible. All of the mealworms were lost to the failed dish, so the enactment of the insect as a snack item could not be pursued by the male, leaving that reality unexplored.

Their experience with the mealworms came as a bit of a surprise to them both, as they thought they would be the easiest to consume, and not the wax moth larvae. The female even went on saying, that she thought the wax moth larvae were a bit disgusting, thus letting the cooking of these to the male. Her expectation of wax moth larvae was, that they would contain some sort of “pus” or “white goo”, as she had seen with a silkworm at a random TV show. For the male they resembled maggots in dead bodies, thus resulting in, the couple not being prone to eat them, while they expected the mealworms to be crispy and delicious to eat – not the other way around. So why feel the need to cook with more of the whole insects, when their first experience was rather unsuccessful? One explanation *could* be, that they have low food neophobia and high food acceptance – just think of the food-challenge applied when abroad in Thailand (*Insects is/as “langhåret”; The Exploration*). Another explanation could also be that they used the products out of sheer courtesy of our thesis and them participating in it, but we can only speculate on this.

The male prioritize taste over the environmental aspect, and would choose beef over insects:

“...are we talking taste? Then 100% beef. Are we talking the environment, then 100% this solution [of eating insects], then I would do it, but taste-wise it is second to none, beef over insects, 100%”

(Male Frederiksberg, appendix 7.4, p. 176).

He further elaborates, that the insects should look like something he is already familiar with, like the case with vegetable-based mince (which he had tried a couple of days prior to meeting up with us), thus making the process of cooking with it easier. The female is a bit more skeptic. After they have tried the insects, she *could* eat insects and dishes with insects in them, but she does not see the point – the insects are *edible*, and some of them even *eatable*, but the whole insects does not transcend the barrier and speak to neither the female’s nor the male’s hedonic side.

With the couple having good experiences with some of the products, it would seem that they would buy them in the supermarket. They both liked the date snacks and the

muffin mix to the point, that they would consider buying them again - the insects are fully accepted as a food item here, hidden among other ingredients, and thus enacted as so. For the whole insects, it is slightly different story. While whole insects *are* enacted as food items and accepted as so in the beginning, this changed over the course of the couples interactions with the products. When the mealworms were being cooked, the smell of flatulence took the female to a trip down memory lane and reminded her of the dingy insect vendor in Thailand, morphing the mealworms as a food item into something else, something non-edible. And on the other hand, while she had a hard time accepting the wax moth larvae as a food item, *they* were now the ones, who were enacted as a food item for the female – the thoughts of maggots and white goo was gone.

Shifting perceptions of the insects, the object, creating new realities – not fluid or even coexisting ones for the female. As already stated, this couple experienced few obstacles with the products provided to them, and as with some of the other couples, the time factor were the biggest one. The buffalo worm flour remained untouched, but with the other products tried, the insect were enacted as a food item, and went from an edible product to a eatable one (except of course from the above mentioned reminiscing).

“Phew, no more insects!” - The Lyngby Couple

The Lyngby couple also tried almost all of the products - in fact they managed to cook with them all. The actual *eating* part had to overcome some barriers and faced a few obstacles. The female had some trouble with eating the whole mealworms in a dish, even when she had done so many times as a part of her tutoring at “*Skoletjenesten*”. The wax moth larvae caused the most commotion, but the surprise of it all was the muffin mix – it *too* did not fall to the couples liking, but for other reasons than the wax moth larvae. One major factor for the Lyngby couple, as same with the Frederiksberg couple, was the time aspect. As the headline of this section says, the female just had enough of the insects- and insect based products in the timeframe provided between the two interviews, and found it difficult to incorporate the products in other meals than dinner.

The couples food practice bared a somewhat pragmatic character, which were no difference with the enactments of the insect products. The dishes created by the couple, with the

insects incorporated in them, were all dishes which were already known to them; they cooked vegetable-based meatballs with some grinded mealworms added to it, and the male also added the buffalo worm flour to the cold-raised rolls, which he usually bakes during the weekend. No new things were tried, but the insects were fitted in their repertoire of dishes. But this is not the only similarity of the two dishes cooked. The mealworms in the meatballs were not eaten as whole insects; they were finely blended to a non-visible state (Appendix 8.3, 11). They made sure all the other ingredients were finely minced before adding the mealworms, to make sure that they *too* would be blended to a non-visible state in the rest of the mix. As with the participants in the studies by both Deroy et al. (2015) and Verbeke (2014) stated in the *Entomophagy* section, the hidden insects were more appealing to the couple, than the whole ones. Here, both of the ingredients were accepted as being food items, and enacted as so, but the whole mealworms had to undertake a transformation before *becoming* a food item - and not just a crunchy snack or gimmick, as they had been before in the females cooking class. The whole mealworms were still in its natural form accepted as being edible, but not as an ingredient to add in a dish and eaten as so, creating multiple realities for the couples enactments of the mealworms, coexisting simultaneously. The male wanted to try the same dish as the mealworms, this time with the wax moth larvae, but the female said no. She could not accept those as being a food item “...I thought they were disgusting if they had too much “gravy” or something in them” (Female Lyngby, Appendix 7.3 p. 163). She could not explain where this notion originated from, other than she connects insects with being crisp and crunchy, and not soft and having “filling” in it. Even when they tried to fry it with oil and salt, so it could become crispy, the female *still* did not want to taste them. Thus the enactment of wax moth larvae remains as being an insect, and not a food item of any kind. The sheer physiology of the wax moth larvae takes a step forward, suggesting that its thicker body contains something other or more, than the (crispy) mealworm, which inhibits her from wanting to taste it. When asked a few times during the follow-up interview, where this notion of, the wax moth larvae should have some sort or filling, came from, she responded: “I do not know. If you just think of a slug or earthworm that might be squashed, and then maybe relate it... yes or think about it” (Female Lyngby, Appendix 7.3, p. 162). As in the article by Rozin, Haidt, McCauley (2008), pets, cockroaches and guts produces a sense of disgust for the female and she did not

regard them as being food items - for her. While she might not deem them as being eatable, she acknowledges that they might be food for others.

Before the finely blended mealworms could be accepted as an ingredient, they would have to eat them first. The couple had also prepared a portion of the veggie-meatballs without the mealworms in it as a backup, just in case the insect-ones did not fall into their liking. This strategy slightly contradicts the study from Hartmann & Siegrist (2016), where the participants were more prone to eat other products containing insects, once they had tried it before.

The insects should be able to fit in their normal food practices. In their interaction with the insects, they used dishes within their “normal” repertoire and incorporated the insects to these. As well as with the vegetarian food, they found it more time consuming to explore new dishes with insects, rather than incorporating the insects to already-known dishes. As seen with the buffalo worm flour and the grinded mealworms, they were infused with dishes already existing in their everyday practice, and not having the need (or time) to search for new recipes.

The male could see the potential of the products, and especially the insect flour, as an alternative source of protein to be added in e.g. bread and vegetarian food, where he might think or feel that he could get more protein. He felt like the cold-raised rolls with the insect flour, made him feel more saturated than with the regular once, which he mentioned as an important factor for him (and his pleasure seeking body, that seeks to feel satiated (Mol, 2012)), The female though, were a bit more skeptic, saying that there are plenty of other ways to get more than enough protein from the likes of plant based products. So while the health aspect is attractive for the male, the female is not convinced. Insects are enacted as an alternative protein source for the male, but not for the female, who considers vegetarian sources of protein as *her* alternative source of protein. While the male did see some benefits of protein coming from insects, he is a bit more skeptic when it comes to the price. As being the pragmatic person he is, he had, of course, looked into the price and accessibility of the insect flour. It was too expensive for him, and when the budget is of an important factor, it would not be at product he would buy at that price. Their food practice is enacted through resources – *time* and *money*. For the couple, food should, besides being

healthy, fit within both their budget and time schedule, creating multiple realities existing and becoming fluid. The insects do not fall within those categories for the couple, since they are both expensive to buy and too time consuming to prepare

The muffin mix did as well, not fall into either the male or the females liking. This came as a surprise to both of them, since the male has a big sweet tooth, which the female stated (laughingly) *"and you usually really like cake, but you only ate one!"* (Female Lyngby, Appendix 7.3, p. 161). However the *taste* of the muffins were a bit too odd for them and the male, even with a heavy love for cake, could only eat one piece. The male did not think it was sweet enough, which was the same for the date snacks, suggesting this being one reason for the dislike of the muffin mix. With the items being a date snack and cake, the expectations of the products were that they would taste sweet, which they both failed to do. Both the cake and the date snack shifts identity from the expectations of something sweet-tasting, into something else. Firstly they do not elaborate further on this, but later states that they both might think that edible insects in general is more suited to fit in the savory kitchen, with the male stating that *"it occurs more natural to me, to use it as dinner than in a dessert"* (Male Lyngby, Appendix 7.3, p. 162), which the female further elaborates with *"... you do not eat cake to get protein..."* (Female Lyngby, Appendix 7.3, p. 163), suggesting that when eating cake, you are eating a dessert and not e.g. dinner.

Now let's return to the wax moth larvae again. As mentioned earlier, the female compares the wax moth larvae to squashed slugs and earthworms, and does not regard these as being edible at any level. There are no multiple realities for the wax moth larvae, no enactments of the wax moth larvae as a food item, no shifting or morphing or anything the like. The wax moth larvae are regarded as one thing, and one thing only; a non-edible insect she does not want to eat. Well actually, it is not true that there is *no* shifting of the enactments of the wax moth larvae. While it is accepted as being edible in the beginning and therefore being treated as one, allowed in the kitchen and cooked on the pan, the shift happens when it comes to the eating part. Being faced with eating the wax moth larvae, the psychological part kicks in and she cannot look beyond what the wax moth larvae is; an insect. What is interesting here is, what was enacted as a edible object to begin with, did not end up as an eatable object, as seen with the mealworms. A food item is a food item, the distinction is whether it will be eaten or not.

After having experimented with the products, they are both, a bit more open to the idea of entomophagy:

“ I [also] think I’m more open to it, now that you have been allowed to work with it, or experimented a bit with it, [opposite] if it was just served to me.. without knowing too much about it.. so a bit more open to the fact that the insect can also be food, I would say”

(Female Lyngby, Appendix 7.3, p. 166).

But as emphasized earlier the insects should remain in its hidden form (grinded or as flour) and be easy to incorporate in their everyday life and routines, before it could ever become a “normal” object for them. They arrive at the notion, that insects are better suited in the savory kitchen and mostly for dinner, while the buffalo worm flour can fit in their weekend-breakfast as well - the insects as an eating are reliant on the situation. While they can both accept the mealworms as being eatable, it is depending on the shape: as a crispy snack if left whole but should be hidden, if being incorporated in dishes. For the female, she cannot accept the wax moth larvae as being eatable - she accepts them as being edible on the notion that she do not have to eat them herself, thus allowing them in the kitchen as other foods.

“...orv, that was special...” - The Nørrebro Couple

The first reaction we had, after conducting the follow up interview with the Nørrebro couple, was that it could have been done within five minutes. They did not have the time to interact with many of the products, other than tasting the date snacks and baking the cake (the day before). That was it; no other experiences and no pictures - which is not entirely true, as they did provide one picture, 10 minutes prior to the post-interview. Sure, they had both stated in the first interview that they were busy people, but they had also managed to present themselves as experimental people, with a great love of food and a desire to try new and unfamiliar foods. Maybe our expectations for the couple were too high? All it takes is a bit of scratching on the surface, and the situation at hand started to unfold.

During the first interview, the Nørrebro couple had stated their love of food and cooking. At least the female had stated *her* love for cooking and taking pleasure in spending time in the kitchen, creating a (in her view) good meal, as seen as an expression of her hedonic side (Thompson & McDonald, 2012). The male views it slightly differently. For him, the act of cooking does not form a good meal – good meals comes from good produce, and not necessarily through the act of cooking. So when they stated, they did not have time to cook the products, except for the muffin mix on the day before, it had us puzzled; was it due to the time factor or the produce? Or a third notion, we did not think of?

On further scratching and questioning they elaborated additionally on not having used the ingredients, with the *taste* of the products they first tried: after they both had tasted the date snacks, they did not feel any urge or need to try some of the other products. They simply did not like the taste of it, which the male described as being “*besk*”, which best can be translated as *bitter* (Male Nørrebro, Appendix 7.5, p. 180). They did however also bake the muffin mix the day before meeting up with us again, which we can only assume they did as a courtesy. The result was the same: they did not like the taste, which came off as being “*besk*” to them.

The first words the male uses to describe the experience with the snacks and the cake was “...*orv, that was special...*” (Male Nørrebro, Appendix 7.5, p. 180). He further elaborates the taste of both the products, with a bitter aftertaste that sticks to your palate and stays there. He cannot remember having tried this taste before, even closing his eyes and tries to imagine *what* that rather special (to him) taste was. He comes to term with it, being the insects, which provides both the date snack and the cake with the unpleasant and unfamiliar taste - even if he already had eaten several kinds of insects before, which he during the pre-interview stated that he did not remember the actual taste of. We will return to this.

The female describes the date snacks as having a “roughness” over them, as well as them being “*besk*” (like the male). This combination is not a pleasant one for her. She had the same experience with the cake: even if she liked the first couple of bites of the cake, a sweet cake with bits of chocolate in it, the same taste experience as with the date snacks emerged and the cake too had a roughness over them and a bitter taste, which she describes to sticking to her palate (and not in a positive way). But where the male seems to put the

negative taste experience on the insects, for the female it is more a sense of the items not living up to her expectations. She is not content with the taste of the date snack and the cake. When she eats that kind of sweet food, it has to be *pleaser-food*: “...well, then it has to be *pleaser-food*, you know, it should not be challenging [to eat]...” (Female Nørrebro, Appendix 7.5, p. 181). In her mind, with the date snack sort of resembling something with chocolate – the flavors do not live up to her hedonic side.

Good food is enacted through *taste* for the couple, putting emphasis on hedonic aspects of eating. The female opens up for the notions, that after they had tasted the first product, the unknown taste had become the “the flavor of the insect”. The insect becomes an object, which is associated with this “*besk*” taste - the insect flavor - and does not open up to the willingness of trying the other products. However, the notion of taste brings us back to the taste of the insects (which the male did not remember, the first time he had tried it, but the insects were blamed for the bad taste in the date snacks and cake). The insect products we provided them with did not fall well within their taste; they were enacted through a dislike of the “*besk*” taste, thus not regarded as being good food. The male is linking the bad and unfamiliar taste with the networks that the taste of the insects provides, which he cannot refrain from “...It's probably just because you are thinking it's an insect [you are eating] and tried abstracting from it...” (Male Nørrebro, Appendix 7.5, p. 185). This opens up to the notion that the taste were of little (or no) meaning when he ate insects before, suggesting that the insects were a mere gimmick in the given situation, rather than an experience of taste. While good food might be enacted through the taste, it would seem that eating insects are enacted as a gimmick. The insect do not enter the networks of good food as other food items might do, but stays in its own (as a gimmick).

Another nail to the coffin, could be, that the products were not organic. For both of them, food must be of good quality. The male regards *organic* food to be of good quality, for the sake of it being organic. So if good food is enacted through organic food for the couple, could the insects then not be regarded as good quality, since they were not organic? Questions on regarding this were not asked during the interview, so further elaborations on this builds on speculations.

The female describes using the insects as a “project”. She cannot just throw them on a pan with salt on, she needs to have a recipe to “wrap it in”. Even with her love of cooking “advanced” food and spending hours doing so, putting emphasis on her hedonic notions as seen with Wansink et. al. (2002), the insects becomes too big of a project for her. Instead of the insects entering the network of her usual love for cooking, it refrains itself from the practice of cooking, hence making the insect a non-eatable object, due to the lack of bond between the two. She does not elaborate further on why the insects is a project, while other food items are not, but only suggesting that the taste experience was not a positive one. This can indicate that the first experience with the taste of the product and the failure to satisfy her taste buds, spiked no desire to cook with it and further exploring her hedonic side (Chandon et al., 2000). Or perhaps the male’s bad taste-experience, causing him to reject the rest of the products thus leaving her to use the products alone, might have triggered her desire in a negative way to experiment further with the whole insects? She did not say, we did not ask.

The edible insect did not (safe to say) become an object that was eatable to them in any sense. The networks of good and tasty food did not stand a chance, when encountered with the insect products. So much, that the time and effort vanished once they had tried the first product, and they saw no reason to further participate in this little experiment. As discussed by us after the post-interview had been conducted, maybe this was the exact thing we set out to discover. The enactment of the insect as a bad taste, prevented them to move on with the other products, (though time was given a reason as well for not tasting the other product), the sole thought of eating anything that tasted bad stopped them for trying one of the other products. As mentioned, they were the couple we had set our hopes and trust to try the products, on the basis that they had both experienced edible insects before, but they did simply not deliver. Or perhaps they did. The notion of time and bad taste experience created a reality around, introducing edible insects to “normal” Danish couple, as something that was too far-fetched. One could say *“langhåret”*, to keep it in relevance to the prior section.

“... I kept imagine the scene from The Lion King” – The Barritvej Couple

For the Barritvej couple, there was a clear distinction between the male’s and the female’s acceptance of the insects and insect-based products. The male took the role of

a pragmatic character, comparing the features of the wax moth larvae to the ones of a fillet of fish, and therefore treated it as such, by battering and frying it. The female however was a bit more skeptic regarding the whole insects, where the insects took the role *as* insects and not so much as being food. The children had mixed reactions towards the products. Where the girl took the skeptic role of her mother, the youngest one, the boy, tasted it equally likewise his father and did not give much thought about it (according to their parents).

As already mentioned the family eats two meals a day together with dinner consisting of “child-friendly” food. The mealtime are enacted as “cozy”, and constitutes them as a “real” family, as earlier described by DeVault (1991). Thus the couple do not (intentionally) serve food, which the children do not like, as this could potentially create conflicts and would be disharmonious within the notions of the “cozy” family mealtime, as also seen with the informants of the study by Ekström (1991). By serving dishes which are known to fall into the children’s liking, not considering introducing new foods and changing the routines that are embedded in the household, the “family coziness” are maintained - if it’s not broken, why fix it? When it comes to the serving of the insects, there are some similarities and few exceptions within these notions. While their oldest child, the girl, showed some skepticism towards the insects and did not seem eager to eat the insects, the boy did not consider the item being non-edible and tasted it, creating conflicting in both positive and negative associations of the insect. However the kicker is the female, as she does not want to eat the insect either. The breaded and fried wax moth larvae might have child-friendly notions (at least for the male), thus being true to the family’s intentions, of not intentionally serving food that the children does not like the female’s disgust towards it triumphs this. While it at first, seemed that the children’s like (and dislike) might be the controlling factor towards what’s being served in the household, the female has a saying too (and eats chicken for dinner that night).

The male jokingly said that they considered serving some of the products to a group of guests, but then decided not to. The insects were enacted as both a gimmick and a chance to tell guests, that they were participating in a Master’s Thesis project. During the week of trying the products, the couple’s oldest child, the girl, had a friend over for a play date. She

looked a bit skeptic when being offered to taste some of the whole insects. She kindly rejected the offer.

The couple had the time to try all of the ingredients. They loved the muffin mix and where the only couple who added extra ingredients to the mix; blueberries and almonds. All the muffins were eaten with great enthusiasm and were enacted as any other cake. They also tried baking some bread with the insect flour, which they also liked – it tasted just like “normal” bread or maybe a bit more “*wholegrain-ish*” as the female described it. The date snacks proved to be a bit too spicy for the female, thus resulting in the male eating the rest of them

The whole insects caused a bit more difficulties, than the products with the insect flour in them. The male had the idea that if a fish filet could be breaded and deep fried, then why not the wax moth larvae (or “jumbo worms” as he described them)? The object was enacted as a food item on equal terms as a piece of fish. The different networks a insect unfolds, is suddenly attributed through the networks of a fish. The unknown food item becomes familiar – at least for the male. The female did not share the same level of enthusiasm towards the breaded and fried wax moth larvae, instead it came to be alive again, as quoted in *Insects is/as “langhåret”*. For her, the object did not become a food item, and she ended up with tasting half of a fried wax moth larvae, but ate chicken for dinner instead, which they had made as a backup. As with the study from Deroy, et al., (2015), the couple, and especially the female, had a much easier time eating the hidden insects, than the whole ones. For the female, the psychological aspect with the whole insects becoming “alive” took too much space, preventing her from wanting to eat them. While the whole insects might have been regarded as a food item, and being allowed in the kitchen, it was never enacted as one by the female, when she was faced with having to *taste* the object. The Deroy, et al., (2015) study further suggest that if entomophagy should be a “normal practice” in the west, *taste* and the hedonistic aspects should be emphasized, and not the rational arguments. The male thought the mealworms were dry and had an aftertaste, which he described as “earthy” or “moldy”. Despite this, he said the taste was okay, but did not further elaborate on this, suggesting that the products did not appeal to his hedonistic side - the insects are edible but not quite eatable.

The headline quote came from the male, as a response to his expectations before eating the wax moth larvae. This, we had to check again twice to see whether we had it right, since it would be obvious if it came from the female. However, it was the male who stated it. He imagined the wax moth larvae like so:

"I still had this scene from The Lion King in the back of my head, where something needs to come out [of the larvae]... so if it's crisp on the outside, then there could be something on the inside, like a filled chocolate frog..."

(Male Barritvej, Appendix 7.2, p. 149)

The insect becomes a scene from a Disney cartoon, where the two (anti)heroes, Timon the meerkat and Pumbaa the warthog eats insects (grubs), and tries to convince Simba the lion cub of its tastiness. Here, Timon says the (quite) (in)famous words *"slimy, yet satisfying"* after eating a rather large worm and passes one over to Simba to eat (who ends up swallowing it whole). For this moment, a childhood memory of Simba's aversion towards eating the larvae and Timon's words describing it, becomes a new reality for the male - he imagines the wax moth larvae being like the one in the cartoon, *slimy, yet satisfying* hence bonding the network of the insect to a Disney cartoon - just like eating kangaroo for some, can become eating a childhood memory (Probyn, 2011). However, with this still in the back of his mind, he ventured into preparing the wax moth larvae as it being a piece of fish, letting his first notion fall back. His two enactments of the wax moth larvae coexisted simultaneously, thus creating a multiple reality, with him ending up enacting the wax moth larvae as a food item equally to a piece of fish.

The Barritvej Couples enactments with the products were somewhat different between the male and the female. While the male initially had some concerns about "jumbo worms", as they resembled him of Simba's first encounter with insects in The Lion King, he still ventured on cooking them, as were they a piece of fish, thus enacting the wax moth larvae through the fish's network. The female had slightly other experience. While she did not have any issues with eating the products with the hidden insects in, the story was different with the whole ones. They sort of came back to life again, thus her enactments of them never was of the insects as being eatable (or even edible). As mentioned, they both had no problem eating the products with the hidden insects in them. Their enactments of them can be said

to be on the notion of them being at least edible. But while the two products (muffins and bread) did contain insect flour, the couple or the children did not state that it was of any significance (other than the bread tasting a bit more “whole-grain-ish”), so are they then eatable?

“...I ate it didn't I, so let's just leave it at that” – the Kairovej Couple

The down-to-earth couple and the children on Kairovej's approach to the products were a bit divided within the family. While the male had a more pragmatic approach towards the products, with Child S as the protagonist in searching the internet for recipes, the story with the female was slightly different. She seemed to have the most feelings of disgust when being faced with entomophagy, having a “zump!” reaction to the products (Appendix 6.1, p. 47). So for the follow-up interview, we were anxious to hear about her experiences with the products; did she try any of them, did she touch them (let alone cook with them!), did she end up loving the products and feast on them, or did they end up in the trash just after we left the last time? As it turned out, a little bit of everything (but with no surprises).

When the products were brought into the kitchen, the female did not have any issues with them being present and being prepared in the same bowl or with the same utensils, as any other food. At this stage, the insects were accepted as a food item, just as much as any other and the objects are enacted as a food item equally to others. But when it came for the time of the products being cooked, she left this task to the male and the oldest child, Child S (the girl).

They managed to try most of the products, with the exception of the mealworms. The date snacks were a hit among the male and the children, though Child S thought they were a bit too spicy. However the male found them a bit too expensive, saying that he would probably not pick them up in the supermarket at that prize - even if he liked the taste of them, the prizing overrules this. Before tasting the date snacks, they were cut into smaller pieces (Appendix 8.1, 4). We asked them if that were for a specific reason, and Child S said it was just to make sure that there would be enough pieces for everyone to taste. The female tasted a tiny bite of these, and she did not share the same enthusiasm as the rest of the

household stating that: “...it felt like I had a cricket flapping around in the stomach the rest of the day...” (Female Kairovej, Appendix 7.1, p. 135). As with the female of the Barritvej couple, the insect suddenly resurrected within her stomach, giving the notion that the insect might as well had been alive when she ate the date snack. Even though the snack looked like a regular date cube, with no visible parts of the cricket shown within the snack, the notion of something that is not deemed eatable would still suffice. She admitted that, even if she would not have had to share the date snacks with the rest of the household, she would still have cut them into smaller pieces. The date snack is very much enacted through them containing insects for the female, which took some overcoming for her to eat and the visual aspects and the thought of what it is, ended up overruling the taste of them.

As for both the Lyngbyvej couple and Nørrebro couple (and later, the Thuja Allé couple), the Kairovej couple did as well think that the muffin mix had a bitter taste to it. They ate some of it and threw the rest away, without thinking that the taste might come specifically from the insects. The muffin mix was not enacted as anything other than a bad tasting cake, with no thought given to the insects as the provider of that particular taste.

The last two products, which the household managed to explore, were the buffalo worm flour and the whole wax moth larvae. The first product, the buffalo worm flour, were incorporated in an already known dish for them and added into a portion of Danish meatballs (Appendix 8.1, 11-14) along with all the regular ingredients that they would normally use. The buffalo worm flour entered the network of their regular food practice and got treated as any other ingredient, thus turning the enactments of the insect flour and their normal food practice into a multiple fluid reality. Somewhat, at least. The male describes the meatballs, with the added buffalo worm flour, as being a bit more dry than normal, but not having a different taste than normally. So when the buffalo worm flour might be enacted as edible to them at this point, the added dryness to the meatballs does not invite it to be eatable for them – not in this dish, at least.

The others tease the female about the insect flour infused meatballs and questions whether she actually ate them or not, to which she repeatedly said that she did: “I ate them all! I ate

what was on my plate..." (Female Kairovej, Appendix 7.1, p. 137). They gang up on her a bit, enacting the object through an exclusion of her - the family meal which they prioritize are turned into a mean of exclusion of the female. It is not surprising per say, that the others tease her with not wanting to eat the insects, as they do that with her picky eating in general. However, when the Kairovej couple tries to share two meals a day (or at least try to), an enactment of food can be seen as togetherness for them, where they try to uphold the unity of the family, by making the effort to dine together and fitting eating-hours into the children's after schools activities (Holm 2012). The surprising element lies within the teasing of the female, almost excluding her from the others. What unity then, are they trying to uphold? Besides maybe the exclusion of the female, at the same time, it creates a special unity of the other members of Kairovej - not only when it comes to eating insects, but also when teasing her about not wanting to eat other unfamiliar foods. They tend to emphasize the females picky eating and tease on it, suggesting that this is not a new practice for the family. The insects enters the same network as other new and unfamiliar food items for them, and the female are being teased about her picky eating again – only with a new food in the center.

One of the first things the male stated, when we asked about their experiences was (with pride in his voice): *"We made them into cracklings"* (Male Kairovej, Appendix 7.1, p. 133). Child S had found a recipe on a food-blog called *Buglady*, to prepare the wax moth larvae in the style of pork cracklings. The male did not have a problem with eating the whole wax moth larvae and Child S said that *"they taste a bit like pork crackling"* (Child S Kairovej, Appendix 7.1, p. 133), turning the wax moth larvae into a food item and thus it gets enacted as resembling pork cracklings. The male does not entirely agree on this notion, stating the texture of the wax moth larvae was nowhere near the texture of pork cracklings, but still has no issues whatsoever eating them. For the male, as well as with Child S, the wax moth larvae are also a food item, but is not enacted as a being a pork crackling for the male. Each of their realities of the cooked wax moth larvae coexist side-by-side. The female however, had a hard time tasting the wax moth larvae. Her husband and children teases her again, to which the female sighs *"But... I ate it didn't I, so let's just leave it at that"* (Female Kairovej, Appendix 7.1, p. 138). She ends up eating the head of the wax moth larvae, which

contradicts the notions made in the article by Martins and Pliner (2006), as mentioned in *Insects is/as "langhåret"*, stating the head is the least desirable part of the animal eaten. We doubt that the wax moth larvae turned edible for the female, but are leaning towards an enactment of it, as her being a part of "Robinson" – she eats it because she pushes herself (with a little help from her family) to do so, but only to overcome the obstacle of it (and might as a gesture to us and her participating in this Master Thesis).

The Kairovej Couple and their children's interactions with the products were a bit different within each of them. The male and the children are a bit more willing to try new and unfamiliar things than the female, as both seen in *Introducing the informant couples* section and with their interactions with the insect products. While the male treated the insects as a family project, entered with enthusiasm for both him and Child S, who found the recipes they used, the female's experience was different, where the insects was more an obstacle to overcome – her personal "Robinson"-experience. The others teased the female, almost excluding her from the unity of the family. Or did they? Maybe this is just how they do family-life (when it comes to food), where their unity as a family is enacted through teasing the female with her picky eating. While the taste of the date snacks and crispy wax moth larvae were accepted as being edible, they were mostly treated as a project. The insects remained an edible (family?) project, but we doubt that similar products would be found in their kitchen again anytime soon.

"...why eat insects?" – The Thuja Allé Couple

The follow up interview with the Thuja Allé couple starts off with the male frying some of the mealworms and the wax moth larvae. He tells us that they did not have the time to prepare the insects within the given timeframe, since they had been sick with the flu during this period. They had only tried eating the snacks and baking the muffin mix, leaving the male a bit guilty for not having tried *more* products, thus leaving him to fry them during our interview and tasting them there.

Even if they had baked the muffin mix, the female did not taste anything but the date snacks, which she was not a fan of. She argues that her first encounter with the date snacks,

and her not liking it, was enough reason for her not trying more: “...*I only tasted those cubes and that was simply enough for me...*” (Female Thuja Allé, Appendix 7.6, p. 188). The male tasted the date snacks as well and also the muffins, which did not fall to his liking. He too, as seen with some of the other couples, had the experience of the muffins tasting bitter and not something he would enjoy eating again. As with the Nørrebro couple, the Thuja Allé couple’s first encounter with the objects gets enacted through a *bad taste* and not something they feel any desire to try again. The male described it as “...*an indeterminable taste, then when you knew that it had something to do with insects, the [bad] taste got hung up on this*” (Male Thuja Allé, Appendix 7.6 p. 189). The insect emerges here, leaving the insect as a food item in the back and gets intertwined with the bad taste experience, which then gets linked to the networks of products containing insects. While they initially both blame the insects for the bad taste, the male tries to rationalize against this, stating:

“...*I think it was like four or eight percentage [insect flour] it said on the package, so I don’t think it was this, which provided it with that taste*”

(Male Thuja Allé, Appendix 7.6, p. 189)

The female agrees with him on this, and while they both try to rationalize against the insects providing the muffin mix and the date snacks with the bad taste, the male then says “...*but it was enough to spark the thought...*” (Male Thuja Allé, Appendix 7.6, p. 189), with the female agreeing “...*yeah, it was enough to affect the mind, so you just thought it was that...*” (Female Thuja Allé, Appendix 7.6, p. 190). Even though, they both agree that the bad taste they experienced with the two products probably did not solely come from that small amount of insect flour it contained, their mind was already set on linking the bad taste to the insects, spiking no further desire to taste any more of the products – just as we saw with the Nørrebro couple.

It could seem to be the end of the interview; the products tasted bad, the bad taste was synonymously with insects, and they did not feel like eating insects again, except that the male was frying some of the whole insects during the interview. The now fried mealworms and wax moth larvae were brought to the table, where we sat, and the male were ready to taste them. The smell resembled him of burnt popcorn and anticipated them to be crispy and maybe salty (even though he did not add salt to the frying pan). He took a

mealworm and ate it. He described the taste as being almost what he expected (minus the salt): crispy and a bit burnt, and slightly resembling a pork crackling. No resistance, no persuasion, no struggle, he just ate the mealworm without any hesitation, despite the bad experience he had with the date snacks and the muffins. While his first encounter with eating insects resulted in a bad taste experience, thus turning the insect into a non-eatable object for the male, his second encounter was different and the mealworm were deemed eatable, creating multiple realities of insects as a food item, coexisting simultaneously. The female was not so willingly trying to eat the fried mealworm. She tries to excuse herself and blaming her recent illness as a reason, for not wanting to eat the mealworm. The male tries to assure her that it tastes a bit like a crispy burnt popcorn or pork crackling and she said: *"I have only one thing to say: diamond!"* (Female Thuja Allé, Appendix 7.6, p. 193), which apparently means, that if the male is tricking his spouse into eating the insects as a joke and without him actual stating the truth about his own experience with it, he owes her a diamond; the insect is still just an insect and an obstacle to overcome, presumably only for the sake of her participating in our Master's Thesis project (and for the possible outcome of her husband giving her a diamond). *"...I'll do it, but it is definitely for your sake!"* (Female Thuja Allé, Appendix 7.6 p. 191). One-two-three and the mealworm were gone – followed by a big glass of water. The thirst for water gave the impression that the mealworm could not be turned into a food item that was deemed eatable or even edible. She cannot refrain from the thought of the mealworm *still* being a mealworm, creating multiple realities of the object for the female, as well as the male: *"It didn't taste bad, it is the thought [of it], it is 100% the thought"* (Female Thuja Allé, Appendix 7.6, p. 194). So while she agrees with the male on the taste and texture of the fried mealworm, enacting the mealworm into a food item, she cannot let go of the thought of the mealworm being a mealworm. Though multiple realities of the mealworm exist at the same time, they never become fluid and the mealworm is still mostly a mealworm.

The male tastes a fried wax moth larvae having the same experience as with the mealworm; crispy burnt popcorn, slightly resembling of a pork crackling. The female never tastes it, she draws the line here. The wax moth larvae cannot be enacted as a food item by her, and it remains a wax moth larvae, which to her is neither eatable nor edible.

A shift happened during this follow-up interview, as it took place. After the first encounter with the insects, which did not fall in the liking of either the male or the female, the bad taste was linked to a taste of insects. The couple's interactions with the insects are enacted as both a *Master's Thesis participation* and a *challenge* to overcome (and a potential diamond for the female). During the first interview with the couple, they both stated healthy food as something they prioritized, and especially the female put a lot of emphasis on eating healthy food, which should be relatively easy to cook. For the male, eating healthy food is enacted through eating healthy elements; as long as the "right" elements (vegetables, protein and rice) are present, then this is considered as eating healthy. This situation bares resemblance to the article by Mol (2012), where food at a nutritionist office is being sidelined to boxes containing "the right" elements of food that needs to be eaten in order to live a healthy life through food. If healthy food are enacted through elements for the male, could the insects then be included in the network of proteins, thus constitute a healthy meal for him?

These notions did not even come up during the follow-up interview. The female had already deemed the insects not being a food for her, and was too preoccupied with her disgust for the insects, to even consider their level of health. As mentioned in the intro, the couple on Thuja Allé had been sick during the time for exploring the products, which for the female had a reinforcing impact on her desire not to try the products. The date snack and muffin mix's bad taste gets linked up with them containing insects, turning into a psychological obstacle she struggles to overcome. While the male ends up tasting the whole insects and liking them, he remains skeptic and questions the whole thing "... *why eat insects?*" (Male Thuja Allé, Appendix 7.6, p. 202), elaborating why would he choose the crispy insect, when a peanut does just the same for him? So even if the insects may be both edible and eatable for the male, he cannot see the purpose of him eating insects when there are other options for him. The female supports him on this notion, saying "...*the human is a creature of habit [vanedyr in Danish]*" (Female Thuja Allé, Appendix 7.6, p. 197), thus not seeing the purpose of them eating insects any time soon.

The enactments of the insect products had notions of mostly being for the sake of participating in this Master Thesis project - especially for the female. She could not refrain from the insect being an insect, thus the enactments of them never could, would or should

be an eatable thing. Whether they were edible or not, is then the question. While she did (manage) to eat a fried mealworm, it had a character of being a gimmick and with them not belonging in networks with other food items. The male did not share the same disgust for the insects, as the female. While he thought the taste of the whole fried insects resembled him of something familiar, thus making the insects edible, he questioned the whole idea of eating insects - at least in our part of the world. The insects do not quite turn eatable for him and while the fried insects *could* be eaten, they could not replace e.g. a bowl of peanuts as a snack and enter the network of other crispy snacks for him.

At the end of the interview, they had tried almost all of the products (minus the wax moth larvae for the female) and only left the buffalo worm flour untouched. The female, trying to convince us (and herself too, perhaps) that she was not timid by the concept of eating insects, asked if they could keep the flour. She said they could bake some bread with it and maybe send the pictures?

Needless to say, we never received (or expected to) any pictures after we left. The fate of the buffalo worm flour remains a mystery.

Sum up

As seen through the various sections, the insect were enacted through multiple networks, making the different products fluid through the different relations. The date snacks did not compel to everybody, bonding the experience to networks within bad taste, a healthy snack, a snack like any other, and a first try at a insect product. The muffin mix as well, did not oblige to every couple, as seen through the various enactments. The mix was enacted as an every other muffin with blueberries and almonds, a sweet cake, a non-sweet cake, a bad taste of '*beskhed*', and as a courtesy to us in participating in this Master Thesis. The buffalo larvae flour was the one product, that many of informants did not engage with, though it was seen as filler in the traditional minced pork meat and as a bread and cold raised bun on a saturday morning. The two products of the whole insects, divided our informants. Whereas the mealworms were the most positive experience for the most, one couple did not commit to them, saying they lacked taste and resembled an odor from a dingy salesman in Thailand. The wax moth larvae on the other hand, was the product that people tended to have a strong negative opinion against during the pre-interviews, but once

enacted, cooked and tasted, most of our couple were turned to the more positive and said that the “Lion King”ish snack was not so bad after all.

Insects is/as “korthåret”

As with the section *Insects is/as “langhåret”*, that started off the analysis of how the insect as a food item was enacted by our informants before being handed the products, we want to complete the circle of life, and recap on how the insect was regarded after they had the chance to interact with the produce. With the word “*langhåret*”, we in Danish (as explained) have a different understanding of how it can be interpreted, and it is a metaphor for when something is a little too imaginative, unrealistic, complicated, unrelatable or when something is a bit far-fetched. An antonym of such a metaphor is not found in the Danish phraseology, so we as researchers have originated our own interpretation of the antonym: “*korthåret*”. The phrase would have to be the exact opposite of “*langhåret*”, and translated directly from Danish it means to have short hair. We want to accompany that correct translation with the opposite of what “*langhåret*” is: something that is not too imaginative, something that is realistic and straightforward and something that is approachable and plausible at the same time. Within the different couples, the different products became “*korthåret*” to each person in its own way. For some it became “*korthåret*” when incorporated into well known dishes, to others it became a notion of “*korthåret*” when they took a leap of faith, tasted it and actually made the product a more relatable one. The difference in when something is remained a “*langhåret*” notion or a “*korthåret*” notion is up to the individual person, we can only speculate if the reality had actually changed. As with the “*langhåret*” so is the “*korthåret*”, something that was observed through the empirical data collected through the interviews and the photos sent to us.

We asked our informants after they had had a chance to work with the products, and what they thought of insects as a food object now, and as elucidated in the prior sections, there were a broad understanding of something that had been demystified. Something that had been tried and even enjoyed, and in other cases something that had been tried but still restrained by the notion of a food item that is not deemed enjoyable and

tasteful. To some it became a *“korthåret”* item, to some it remained *“langhåret”*, but common to all the couples was the bare notion of several coexisting realities.

The Contestant

The couple with three children from *‘Kairovej’* were a bit sceptic to begin with, and as mentioned, the mother of the family thought she was a contestant in a game show, where she had to eat the object in order to receive the grand prize - the approval from the rest of the family. When asked what she thought of the products after they had tried to incorporate them as food items within their daily practices, her response was: *“No, I do not think anything has changed.. I could not see it become a part of our household, not if I had to have the final say”* (Female, Kairovej, Appendix 7.1, p. 143).

As stated earlier, the mother of the family eventually bit of the head of a wax moth larvae and eventually got the praise from the rest of the family in the form of badgering, but that did not seem to be sufficient enough for her to make it a household item. Even when merging the different realities that existed when the products were used in traditional Danish dishes - meatball dinner with potatoes and vegetables and making pork cracklings as a snack, the notion of an insect as something that belongs in a kitchen would not suffice. If this originates from an inherent feeling, growing up with a sense of insects being seen as a pest or not, can only be speculations from our side, but a child in the same position had the same emotional reaction. As mentioned earlier, Child J of the Kairovej couple, first notion when being asked about insects as a food, were a repulsive one which turned into a perception of something that could be deemed acceptable to eat in the right conditions. When asked again, of what he thought of insects as a food item, after having tried them at different occasions, were the same as his mother - a firm negative response was uttered. The insect was then compared to the likings of scraped raw beef (tatar), which he had enjoyed for the first time prior to these interviews, and would gladly try again. To him, both the insects and the raw meat were new food items, but one had clearly won over the other. The distinction between the two food items, might have come from where the product were first served and what the general consensus were around the given item. The scraped raw

beef were served at his grandma's house and this was a dish, his father was raised upon, hence making the food item a familiarized product to everyone around Child J, and thereby giving it a setting of something "normal" to eat. When the insects were introduced to the family by us, the reality of an insect as a food item had already been demeaned by the mother. Since she was our contact person to begin with, her pre-understanding of the object could have had a say on how her child would interact with it in the future to come, and this can possibly be credited to his firm negative response. An ontotnorm, that insects are not being deemed worthy as a food item, clearly resided within this home before being introduced to edible insects, but a change in that perception seems to have happened afterwards.

What started out being a "*langhåret*" notion to both the mother and Child J, became at some point a "*korthåret*" one, but the dream of having long hair never left the mindset of them both. What might have started out being an unrelated food object and something that was far-fetched to even engage in, became a notion of something that could work within a traditional Danish kitchen, but not something that necessarily should. Different realities had emerged for the both, and even one reality at some point had them both trying the gameshow alike product, thus creating a multiple enactment, but the future for insect based products did not seem to stand a fair chance within their home.

The Resurrection of The "Fish"

The same can to some extent be said about the couple at Barritvej as well. What started out being '*langhåret*' even before the couple agreed to participate in this Master Thesis, with the female of the couple, unwillingly capitulating after pressure from the male counterpart, became '*korthåret*' in the form of baked goods. As mentioned, they were the only couple who exceeded the ingredient list, provided by the company making the ready-to-make muffin mix, and added almonds and blueberries as they would have had with any other pastry. What at first had to be a negotiation between a married couple, and a compromise to help out a friend of the spouse, turned into a fun saturday afternoon with the children. Aligning a normal and traditional reality within their home, with the reality of

helping a couple of Master Thesis students with their project, thus enacting the insect within a ontological multiplicity. When asked if the reality around insects as an eating had changed, the answer were both '*langhåret*' and '*korthåret*': "*No, not in regards to the whole [insects], but with the other stuff I am actually pretty positive*" (Female Barritvej, Appendix 7.2, p. 152).

As stated in the State of Art, Ophelia Deroy and her colleagues (2015) concluded through their study that the participants in their research were more willing to eat insect based food items if they could not see any part of the insect, and so it was with the female from Barritvej. The male counterpart on the other hand, were more willing to try out the whole insects. As mentioned in the *Insect is/as Food*, he tried to fry the wax moth larvaes and stated that if a fish filet could fry then so could a "*jumbo worm*" (Male Barritvej, Appendix 7.2, p. 149). As with the couple from Kairovej, the products became a part of the kitchen as any other traditional food item in the Danish kitchen would have, thereby moving the limit of what is deemed an acceptable enactment of food. To both the male and the female part, the products, as said, became '*korthåret*' for a short period of time, but on different occasions, creating different enactments of the same product, but still ended up being an un-relatable product. To the female it was the notion of the whole insects coming back to life when served on a plate, and to the male it was the notion of not being a product that could fulfill the level of satiety that he needed from a main course. The level of satiety can be discussed whether it was the notion of insects being an eating or if the sheer physiological frame of the insect was the reason for this not being a relatable item.

The Traditional

The "*korthåret*" notion was also seen with the Lyngby couple, especially when asked if anything had changed after working with the product. As with the other couples so far, the female was again the one with the most continence towards the products before being applied into their home. To her, the "*langhåret*" notion were more of a disgust character than a complicated one, but as mentioned the enactment of the insect were indeed a multiple reality within her. A cockroach on a hotel floor being treated as a pest, whereas a

mealworm on a frying pan was perceived as a popcorn like snack. When asked, how the insect was regarded after working with the insects an “*korthåret*” answer was given:

“I [also] think I’m more open to it, now that you have been allowed to work with it, or experimented a bit with it, [opposite] if it was just served to me.. without knowing too much about it.. so a bit more open to the fact that the insect can also be food, I would say”

(Female Lyngby, Appendix 7.3, p. 166).

The female went through all stages of what Fallon and Rozin (1983) stated that an individual go through in order to accept a given food product, and came out on the other side with a perception of what can be seen as food within the Western culture. To begin with, when asked, what she thought of insects as a food item, a notion was made that this was a food item for another part of the world, and not something we in a Western culture had to concern ourselves with. That notion had clearly taken a turn towards a more positive response, after being able to work with the products. While incorporating them into their daily regime of doings, breakfast and dinner was made with the products as any other household item would have. The male informant of the couple described that the couple had a tradition of baking cold raised buns in the weekend, and to him this was where the products became a “*korthåret*” reality. As any normal saturday morning when baking, he simply just replaced some of the regular flour with the buffalo larvae flour, thereby merging the different realities of a traditional breakfast practice during the weekend with a Master Thesis participation and still coming out on the other side with a delicious product.

The Clip-on Hair

To the couple from Frederiksberg the different insect produce were a reality that swayed between being “*langhåret*” and “*korthåret*”. What might have been “*langhåret*” to begin with was in some way conquered before we entered the sphere of the couple, as stated in previous sections - they entered the realm of *unsavoury animals* before we pre-interviewed them. To the female of the couple, the contrast between the different products

they tried in Thailand, was that of a product produced by a cooperation and that of a dingy salesman located in a foreign country.

The male part finds it soothing to cook in the kitchen, and the insects we provided did not stop this motion. To him the edible insects had become a *“korthåret”* version even before the products were enacted. When asked what they thought of the objects, after having them in their household for a few weeks, a consensus from both of them were, that it had been fun and could be a reproductive item to occur: *“...as soon as you have tried it once, there is not far to the next one.. I think.. now we have tried it in our own kitchen and know what it [the produce] can do...”* (Female Frederiksberg, Appendix 7.4, p. 175).

The male counterpart continues by saying that the insect product had been demystified, and even going the lengths to say it tasted *“splendid”*. As shown in the previous sections, this couple was also the ones who had most fun with the products, and created various dishes with the whole insects. The reality of insects being something of a legacy from dead people in a action movie from Hollywood had definitely vanished, and one could say that a new and single reality had emerged. A *“korthåret”* reality with clip-on hair (to keep it within the analogy of wordplay).

The Taste

The same can not be said about the couple from Nørrebro. To them the object at hand stayed a *“langhåret”* one through the whole process. As mentioned before, they were the couple we as researchers thought would have the easiest task of implementing the products, since the male part had tried insects in assorted ways and at various locations before, and the female seemingly being open to try new things. But the reality of such did not occur, and as mentioned in the *Insects is/as Food*, that was maybe the essence of this whole project: to see if it could be an implementing enactment of a daily regimen, and in this case it did not.

The first notion the couple gave us, was that there had not been any time to try and enforce these product, since their working schedule took too much of their time. There had been few couples, that simply did not have the time to try all the products within the given timeframe, but the reasons for that had been the amount of too many insect products at once, and lack of knowledge on how to cook with them. Here we had a couple, who simply did not have the time to engage with the produce, other than the ones that fitted like a shoe - the date snacks and the muffin mix (which were made the day before the post-interview). One could argue that the reality indeed did get the notion of a “*korthåret*” one, just not the one we had hoped for. As stated in the *Insects is/as “langhåret”* section, this was the couple that seemed to have the least complications with incorporating the insect, since the both of them had tried insects on various occasions, and generally seemed excited to participate in this experiment. This is also a great example that the notion of receiving the products, provided by us, uncritically, not necessarily made it “*korthåret*”. The two products that they did taste, did not sit well with their taste buds, and that certainly enforced the consensus of an object not worth further interest:

“ .. I have actually become a little more skeptical about why I should throw myself into this.. the first step for me was a bit of a gimmick, then I bought myself at one point.. now we have some in the freezer, I'd like to try that too, but if we suddenly didn't have a positive experience with that either, I don't think that I would buy it again”

(Male Nørrebro, appendix 7.5, p. 184)

The Why

The Thuja Alle couple was, as with the most of the couple, a notion that went from “*langhåret*” to “*korthåret*” but not right away. As with the Frederiksberg couple, the time factor played a part with the enactment of the insects, but that did not stop them from trying to make it a little more relatable. As mentioned in previous sections, the couple fried the whole insects while we were conducting the post-interview, which gave the notion that this was something that they wanted to try but just did not have time for. Then again it could also just be to please us (it was for the female), but with no further question into that,

it has to be hearsay from our point of view. To the female of the couple (a certain pattern can be noticed here) the insects was as *“langhåret”* as it could get before getting the products into the house, and even once the products got enacted, she was not the first in line to taste. She did however force herself to try a mealworm in the presence of us, and with that, the small mealworm had turned itself into a popcorn alike snack. Thus merging her own reality of the insect with a new one, but the product did still not have a place in their household after this. When asked what they both thought of the insect afterwards, they agreed that the insect had been demystified, but as the male mentioned:

“What I think is, that this is not something that adds something extra to what we already have... and that sparks the question of ‘why’. Why would you do it then...”

(Male Thuja Alle, Appendix 7.6, p. 202)

Sum up

The question of *why*, can maybe be seen as what the different insect products are lacking in order to become a reality within the Danish kitchens. For now we have seen different realities change, emerge and intertwine and the notion of insect as a food item becoming *“korthåret”* but in the end staying too unrelatable for most of the couples. We have seen it become a part of a traditional Danish kitchen within the Kairovej couple, but nothing that could or would stay in futures to come. We have seen it becoming a tasteful baked good on a saturday afternoon at the Barritvej couple, but the resurrection of the mealworm were still a too big of a hurdle for it to be a household item. To the Lyngby couple, the notion of insects being a food item was something that belonged to another part of the world, but ended up being a treat on a saturday morning in the form of a cold-raised bun. The Frederiksberg couple turned a unsavoury animal from a dingy place, to a demystified and flavourful dish, and with the couple from Nørrebro, the insect started out as a tasteful gimmick, but turned into a demanding food object, that could not get the time to unfold itself. And lastly but not least, the couple on Thuja Alle overcame the mystery of the insect but turned the reality of the insect into a question of *why*? The question of why, is something that will be elaborated upon within the *Discussion* section.

Eatable vs. Edible

To sum it all up, we are at the bottom of our sandwich, the bottom bread that, with the top bread, holds it all together, and gives us that wholesome feeling, that this has been a delicious sandwich to eat. As we did with the top bread, *Edible vs. Eatable*, we want to present the static interpretations of the words. *Eatable* is described as: "*Fit to be consumed as food*", whereas *Edible* is defined as: "*Fit to be eaten*". So the big questions is now, did the edible insects we provided our informants with, actually become eatable? To some it did in a sense, that you could think that they were experienced with the food object, to others it did not, being the taste of the products the biggest hindrance.

To our couple at Kairovej, there were different realities happening at once within the edible insect making it not quite an eatable product. An ontoterm of not eating insects, withheld the mother of the couple from enjoying the food made with the products, but to the rest of the family it was enjoyed, though with some skepticism. The children mentioned that they consumed the food made by their parents, but this was probably the last time they would have it (the mother did mention that the leftovers from the dinners, were eaten the next days by the children, so something rel(e)atable must have happened). The couple from Barritvej were hold back by the same ontoterm of the insect not being a product that was deemed eatable for the future, but the products did make it a fluid one. The female of the couple, had half a bite of the whole insects, but quite enjoyed the processed insects, with the male being the only one who ate all of the products. His only concern with it, was that the amount of insects it would take to make him feel satiated. The couple of Thuja Alle shared the same realities as the others, making the taste (and a case of illness), the reason for the products not being a completely eatable object. The female succumbed to the ontoterm of the insect not being a food item and the verification of the object through packaging and other people's perception. The male made it a fluid object, as he did not enjoy the taste of the muffin mix, but bonded the networks of the whole insects to the ones of any other snack. The Frederiksberg couple did enjoy most of the products, and they were all deemed eatable, with the exception of the mealworms. The insects different networks to a dingy salesman were too much for the female to make it an eatable object. With the Lyngby couple, almost all of the products were eaten, with the exception of the wax moth

larvae. The products were enacted as traditional dishes within their home, making the insect a very eatable object. The only obstacle was that they would have wished for more time. The Nørrebro couple, were the only couple not deeming the insect a eatable one after having tried the snacks and muffin mix. The taste was enough for them to not try any more of the products (although they blame time as the main factor, for not having tried any of the other products).

The reason for the different enactments of the products and what the reasons for them being either edible, eatable or a mixture of them both, will be further discussed within the next sections.

Discussion

As we have seen throughout the analysis, the insect products were enacted through different networks, relations and situations within our different couples, which sparked a few objects for further discussing. By exploring the different enactments, we have seen options that could pave the way for the edible insect to become a household item within the Danish household. But not without restraints. The edible insect is a controversial object that invokes certain emotions and as observed, not a household item that was enacted with ease. In the following section we will discuss our results in accordance to each other and in relation to the State of art. The first part will discuss the "*langhåret*" and "*korthåret*" notion, followed up by *The question of Why?* and *The question of How?*. From here the discussion will go into *The matter of taste, Edible, eatable and all that lie in between* and will be rounded off with *The matter of Ontonorms and Reflection on choice of products*.

The long and the short hair

As illustrated through the two sections *Insects is/as "langhåret"* and *Insects is/as "korthåret"*, several enactments, realities and networks were observed. The question we permitted to be answered by our informants, were the distinction whether the different insect products became relatable and could be accepted as a food item within a Danish

household. The enactments were as different as the products provided by us, but as with the products (all containing some sort of insect) some similarities were observed. A question arose during the analysis; how can the edible insect product let go of its fluidness and be an enactment that is deemed worthy enough to enter the Danish households and how can the ontoterm of the edible insect be broken? And most important; does it have to?

Within the couple at Kairovej, the female had signed up her family to participate in our Master Thesis, without even knowing what the topic was. As mentioned in the analysis section, the ontoterm of insects not being an eatable object, were practiced highly and it was first when we told them that there were no pressure from us to even engage with the products as a food item. This was not the only couple, that enacted that specific ontoterm and only two couples were prone to engage with the insects before being provided with them (and only one couple of the two that actually did). So what is it that makes the edible insect deemed not worthy of being enacted as a food item? Is it the fact that insects are so multiple in species that the distinction between them is too great to cope with? If we had given them a free range chicken to prepare, a somewhat common item to eat in Denmark, not alive and plucked (as the insect was in some matter), would the object have been considered as a "*langhåret*" notion as well? Or go the extra length and present them with a guinea fowl which resembles a chicken? An object like a chicken, or for that matter a cow (well, probably not a whole cow for most of us, but some of us are from Jutland), are common food items in Denmark - even though these are not animals which normally reside within any major cities in Denmark, and typically found on fields or in barns, with room for them to evolve.

Most of our informants had travelled to Asian countries, where entomophagy is not an unfamiliar practice, and to some, a necessity in order to get the right amount of nutrients. Some of our couples had even dazzled with the practice of eating insects, but as for them all it had been in the spirit of trying a gimmick; something that seemed fun to try and even considered a dare to one self. However, all in all the thought of eating an insect was deemed disgusting as the "*langhåret*" notion showed when the couples were met with the products provided by us.

A notion of disgust was hinted from almost all informant couples, when the question arose of what they thought of edible insects. Food can be rejected on the basic presumption, that something taste bad, without having tried it, often evoking a notion of disgust. As explained in the State of Art on *Food Acceptance and Rejection*, three categories of disgust can be defragmented, and the notion of insects being a 'core disgust' can be attributed towards it. Several realities and enactments were discovered after our couples had engaged with the products, but if the notion of disgust were outspoken to begin with, how come almost all of our informants dared to get involved with the products and even tasting them? Was it because they felt a need to at least try it as a favor to our Master Thesis project, as seen with the Thuja Alle couple, who chose to fry the whole insects on a pan during the post-interview, even though their first encounter with the products were of an unfulfilling character? Or was it because, we told them they were edible and in that sense made it alright to at least try to eat them? As suggested by Fallon & Rozin (1983), this last notion might have an influence on our participants, given their third dimension of food acceptance and rejection; *the knowledge of the nature or origin of the substance*. Although some of our (mostly female) participants did not have an easy time trying the insects, they all, at some point, accepted them as being an object fit for consumption. As we had provided them with insects, which were securely packaged in containers familiar to other food items, this could have given a sense of recognizability which led then to accept the products, even if they consisted of insects. The wax moth larvae came from containers familiar to those of meat from the supermarket, that are not too dissimilar to one another. An additional factor to our informants trying the products, even though displaying disgust to begin with, could also be, that some of the products only contained hidden insects, making them not resemble, well, insects. As suggested by Angyal (1941), this can also be a contributing factor to the (partly) acceptance of the products, even with the notion of disgust towards edible insects; if I cannot see the actual insect, maybe it is not an insect? Thus making the initial feelings of disgust fall to the back and allowing one to accept the products as being something you can eat. As mentioned in the analysis, we let it be up to the individual whether just tasting the products (followed by a big glass of water in one case), or actually endeavored the meals created (as seen on Frederiksberg). Combined with the findings from Fallon & Rozin (1983)

and Angyal (1941), this could be what made the edible insects transform from a "*langhåret*" notion to a "*korthåret*" one.

A main theme was hinted at the post-interviews; that the insects would not be an object, which would have anything to do in most of the homes and food practices of our couples, after their participation in our Master's Thesis. One major question which was asked by an informant was *Why? Why should I eat insects?* (Male Thuja Alle, Appendix 7.6, p. 202)

The question of *Why?*

Why eat insects? Why is a good question to ask, and this is perhaps the question, where an answer is missing, within the subject of edible insects. Some of our informants asked that very question during the pre- and post-question. Not all of them as a direct question to us, but some of a rhetorical character. *Why* should they eat insects? *Why* should they buy an insect-based product as opposed to the ones they already do? *Why* should they eat something that taste bad? A few good questions from a few good men (and women), and questions that we do not know if we can give an unambiguous answer to. However, as we have seen throughout our analysis, there are several factors which contribute to raising the question of *why?*

Throughout our analysis, the edible insect has not been an easy food item to conquer, and some informants were very reluctant to engage with the insect products. There have been negotiations within a couple taken places before even agreeing to participate in our thesis, and there have been products which have been handled with restraint, as some of our informants have had some negative associations with insect. Not towards the specific insect products we provided them with, but each informant have had some sort of negative connection to insects, whether it be a cockroach on a hotel floor, a dingy smell from a dingy vendor in Thailand, accidental snack while cycling or an imagination that the object were something that needed to be slaughtered.

It would seem that the negative associations are embedded in us - or at least in our part of the world - that insects is not something that is deemed appropriate to eat. Therefore we do not relate to insects as being something we *should* eat, but they are something that should

rather live a life on its own, with as little interfering or contact with us as possible (unless maybe if you are a farmer, then they probably have another role, but still not one as being food). For as long as humans have existed, the insect have had an involuntary role in how people perceive them. One informant of ours even said that one of the products provided by us, the wax moth larvae, resembled what he had seen crawling in dead corpses in Hollywood-action movies. And this is just one of the multiple reasons, why some insects are considered a plague rather than an object for consumption, let alone an enjoyable food item. Some species of insects are drawn to and thrive in the likes of faeces, vomit, blood and rotten food. Other species bares networks connected to sacrilegious beliefs, as with the plagues that rained down upon the Egyptians in the Old Testament. All of these networks are connected in a negative way, to some sort of disgust and even though the tiny mealworms are produced in a secure and verified place, it is still being negatively associated in the above mentioned networks.

With all these negative associations attached to edible insects, why then even attempt to convert us to insect eaters? Why all the fuzz? Our informants questioning might not be as remote as it would seem at first glance.

A main argument for entomophagy, which always seems to be emphasized, is insects as being sustainable source of protein (van Huis, 2013) and (Chemnitz et al., 2014). Playing on the pragmatic and logic argument does not seem to be quite enough to convince us in the west to eat insects, which we also noticed amongst the majority of those of our informants, who was not totally and utterly disgusted by the concept. While the males at Barritvej, Lyngby and Frederiksberg could (somewhat) see the benefits of eating insects for the sustainable argument, other factors tended to take over. Another factor, which are also emphasized on the topic of entomophagy is that insects are healthy (van Huis, 2013; and Bukkens, 1997). We do not touch upon the nutritional values of insects, therefore we are not adequately equipped to take it upon us, to go in to the discussion whether or not this have grounds. However, all of our informant do mention healthy food in one way or the other, to be of importance for them. Therefore it could seem straightforward that the insects would not cause any challenges for them, *if* they took up on the notion of insects being healthy and could see the benefits of eating them. But as we saw throughout our analysis, this was not entirely the case. In fact, only a few of them mentions the healthiness

of the insects in our follow-up interview, as this topic was not of relevance - *if* a food item are to be perceived as being healthy for the informants, it needs to be accepted (and enacted) as one firstly (which again, we did not see within all of our informant couples). As with the argument of sustainability, the notion of insects as being healthy also addresses the pragmatic and utilitarian sides, which our informants did not buy in to.

Another factor mentioned, as a reason of why to eat insects, was the taste of them. As mentioned in the State of Art section on *Entomophagy*, Ben Reade (Deroy et. al, 2015), targeting the hedonic side might prove to be the way to go, if we are to accept entomophagy. While some of them also use the argument of sustainability as reasoning for entomophagy, they acknowledge that this might not be enough here. They suggest that if entomophagy are to gain popularity (or just grounds) in the West, we need to play on two main strings; taking the disgust out of it and put emphasis on the taste. Which leads us to the next question of *how*?

The question of *How*?

How to break these negative associations? And is it even necessary to break them or can it be enough to override them, linking new and other (positive) associations towards edible insects - perhaps through the taste? Surely it is logic, that for a product (and we dare to suggest, if *any* product) are to gain its grounds, the taste of it needs to be not only accepted, but also somewhat enjoyable. But before we can taste anything, the product needs to actual pass the lips and enter the mouth. How is this done, if the notion of disgust are dominant?

A recent article in a Danish newspaper (Jacobsen, 2018), regarding edible insects and its prospects of the future, one of the founders of Bugging Denmark (a company that specialize themselves in edible crickets, and are the first insect farm placed in an urban area in Denmark) was interviewed on the matter. His take on how to answer the question of *why*, resides in the same notion as seen in various other scientific articles - the notion of making it something that is common and recognizable, but also present it in an exclusive packaging. For our male informant on Frederiksberg, who tends to buy the prettier milk, this could be a catalyzing factor for *him* to buy an insect product (if that is what he is set out to buy, at

least). Our male informant on Nørrebro could also be prone to tap into this, of the insects being presented as something exclusive. He highlighted his experience with the ants on *noma*, which can surely said to be an exclusive one, suggesting that he might be susceptible to the suggestion from Bugging Denmark - he might even have tried the products we provided him with.

As we have seen with Japanese sushi, where raw fish on rice entered the Danish food scene, people were hesitant to accept the new food item in the beginning. But gradually people were convinced that the aesthetic and presentable piece of raw fish, were safe to eat (Snitkjær & Mortensen, 2012) and maybe the same can be said about the edible insect. However, on the other hand, there are not many (if any) similar exclusive traditions of eating insects, which are broadly accepted by us Westerners (except, maybe for escargots in France, but technically they do not fall within the same biologic category as insects, so we dare to rule them out). We have mentioned the live ants on *noma* quite a few times by now, so no need for further presentation of the exclusiveness of *that* dish. In Italy they have a traditional Sardinian cheese, *casu marzu*, which is made from sheep milk and then fermented into decomposition stage – a process helped along by maggots. The cheese is then eaten with the maggots still in it, while they are still alive. And in Mexico *escamoles*, or ant larvae, are also eaten as an exclusive treat on high-end restaurants (Van Huis et al., 2013). So there do exist *some* exclusive representations of edible insects worldwide.

Verbeke (2014), Deroy, et. al. (2015) have pointed towards, that the insect itself have to be served in a hidden form, look like something relatable or familiar, for us to accept edible insects and eat them. Verbeke (2014) experimented with this hypothesis, and asked the participants if they were willing to replace some of the minced meat in a beef patty, with an insect supplement. The overall notion was that people were ready to accept this, but the theory was never tested out in practice. While the study does not test out the exact case we set out to explore with our informants, however, her study still gave us an idea of some of the obstacles which lay ahead and *how* it might be addressed in order for the edible insect to enter the Danish food scene. We will return to this in a few sentences. Familiarity is also pointed towards as a factor, for entomophagy to gain higher grounds (Hartmann & Siegrist, 2016), (Verneau et al. 2016) and (Verbeke, 2014). They all argue, if the

insects can somehow be either incorporated in already known products or come to look like a familiar product (like a insect sandwich perhaps?), the chance of success would increase.

Both of these notions were observed with our informants, as they set out to explore the insects products. Several of our couples incorporated the products into well-known dishes, which were seen with both the Danish meatballs on Kairovej, and the overall use of insect flour in both the muffin-mix and incorporation of it in bread. These dishes are not new for any of them and at the same time, the insects remained hidden, combining both visibility and familiarity - as suggested by the above mentioned studies. However, even with the insects being hidden or incorporated in a familiar dish or item (and sometimes both), not all of the couples shared the same level of enthusiasm towards the insect products. While the study from Verbeke (2014) *did* provide us with useful information, which lead us to investigate and test out her hypothesis of how insects in its hidden form can increase the willingness towards eating them, it does not tell us how the informants reacted to it, since it is only a hypothetical insects-infused patty they are introduced to. One, as it turned out, quite important aspect was left out: the *taste*.

Some of our informants did already use the products in already known dishes, thus tracing back to the notions of promoting entomophagy by the use of visibility, familiarity. But what about the taste? In our analysis we did see insects, grinded and whole alike, being used and accepted as food, some even being eatable. As already mentioned, Ben Reade (Deroy, et. al., 2015) from Nordic Food Lab gave his thoughts on how to make edible insects a more household name, by moving away from logic and utilitarian notions of the insects as being a sustainable food item or alternative protein source, to make it one of a gastronomical, thus appealing to our hedonic sides. As we saw with our informants, they had very different experiences regarding the taste of the products - both positive and the negative. We will return to this.

The answers to *How* would seem, that it relied on the matter of visibility, familiarity and the taste. But how did the products taste? Two of our couples, Nørrebro and Thuja Allé said that the taste of the first products had refrained them from further exploration. Some of the other couples said that the insect-taste did not *do* anything for them - to them it was

still enacted as a gimmick, something that was fun to try and add and maybe something only was done out of sheer courtesy to us. And if the products provided by us, did not do anything to heighten the gastronomical experience, how to incorporate insects to be a food item you would want to eat? For some of our informants, they did in fact enjoy the taste of some of the products. Or at least they enjoyed the overall taste of the products with insects incorporated in it, and dishes they created. But how did the insect itself taste? What did it *do*? Did it approach their hedonic sides? Lets return to the taste of the insects.

The matter of taste

If we are to approach the hedonic sides, for the insect to become an object for eating, the edible insects are to become eatable - so how did it taste? Let's take a step back to our analyses *Eatable vs. Edible*. Eatable were defined "*fit to be consumed as food*", whereas edible was defined as "*fit to be eaten*". Most of the informants had some sort of edible notions towards the insect and some found the products eatable as well. But was this because of the insects? Or despite of it? How did the insect itself approach the hedonic sides of our informants?

Of the informant couples, where some traces of the insects being eatable was shown, were the couples of Frederiksberg, Lyngby and the males at Kairovej, Barritvej and Thuja Allé. At Nørrebro, we even saw notions of the insects going from eatable to edible - not exactly the scenario we expected.

As with the Frederiksberg couple and their version of "fitness-bolognaise" containing the wax moth larvae, it seemed the insects turned eatable. At least they describe the dish itself as being eatable, but they also mentioned that the wax moth larvae did not really contribute with any flavors to the dish. The dish is eatable, yes, but the wax moth larvae itself? The male stated that, between beef and the wax moth larvae, he would 100% chose the beef - in terms of flavor, that is. The mealworms did not become eatable or even edible for the female - the particular smell of the fried mealworms, reminding her of the dingy insect vendor, did not invite the mealworms to enter the networks belonging to food.

For the Nørrebro couple, where they both had actually eaten insects before, it seemed that there was an opposite reaction with the insects provided by us. The insects, that might have been eatable before, were transformed into being edible (at most). In their first encounter with the products, the taste of them did not fall into their liking and prevented them in wanting to try the other products. But let us rewind back to their very first experience with insects; the female had tried insects before as a child, not remembering the exact species but only the taste as being a little moldy, or earthy. The male had tried insects “*several times*” before, both while traveling in South America and Africa and at the (then) two-starred Michelin Restaurant noma, where he ate alive ants. He does not remember the actual taste of them, but remember the species. Does this make the insect eatable or edible? Or any of them, for that matter? Or maybe the insects can be eatable in the right circumstances, making the eatable-ness of the insects situated. For the Nørrebro couple, or the male at least, where the taste comes first (or at least aligned with organic), the taste of the insects we provided them with was not something that fell into their, well, taste.

For the couples of Kairovej, Barritvej and Thuja Allé the insects are eaten (or, tasted at least) by all of the adults. Both the males of Kairovej and Thuja Allé fried the wax moth larvae into cracklings and thought it could be eaten as a crispy snack (with beer, for the male at Thuja Allé), but both questions it: why eat these insects, when there are other options (of snacks) available? The insects are edible here. But are they eatable? Again, they mention them tasting a bit like pork cracklings, which we only assume they like the taste of since it was said with great enthusiasm, but it does not seem to be enough for them. We circle back to the first question of “why” eat the wax moth larvae, if they only taste a bit like pork cracklings – when you can eat pork cracklings instead?

The male at Barritvej tried to enact the wax moth larvae though the networks of the, to him, well-known fish fillet. It turned out to be edible yes, but also eatable? Not really. He ate them, but mostly for the sake of not throwing them away when the others did not want to eat any more of them (oh the joy of being the dad, always the “trashcan” of the family). The

taste of the wax moth larvae did not do anything for the male, thus, again, circling back to the question of “why” should he eat the insects?

The muffin-mix is the real divider of the opinions here, as there were two very different experiences with them. We have ticked the two boxes of visibility and familiarity . What about the taste then? The couples at Kairovej, Lyngby, Nørrebro and Thuja Allé all thought it had an odd taste to it that did not fall in to their liking. A bitter taste, that some of them blamed the insects for. Yes, the muffin-mix was tasted by some and others ate several pieces, despite the odd aftertaste. The cake can undoubtedly be eaten, so it is edible here, but does not make the cut of being eatable. None of them really enjoy the taste of it (again, despite some eating more pieces of it), thus not making it eatable and a candidate to approaching their hedonic sides. But remember, we also saw two couples who loved the muffin mix.

On Barritvej and Frederiksberg the story is quite different. In both of the households they liked, actually loved, the taste of the muffin-mix. While Barritvej added almonds and blueberries to the mix, Frederiksberg left it au natural. Shared between them all though, besides their love for the taste of the muffin-mix, was their notions of it: it tasted like any other cake. If they cannot taste the actual insects in the mix, are the love for the muffin-mix then enacted through the taste of the actual insects? Or just the taste of cake? Yes, the muffin-mix is surely edible, and can surely be said to be eatable as well, but does this make the insects eatable as well? If the insect are not providing anything to the taste, what is the point of adding them then? Are the insects then approaching the hedonic side, as suggested by Ben Reade (Deroy et. al., 2015)?

So where to go from here? We can transcend the barrier of the looks of the insect, serving them hidden and processed in products. We can also serve them in a familiar style, thus easing the transition of eating the insects, as we are more prone to eat food items we already know. We can make the products containing insect, taste (somewhat) in a fashion that speak to our hedonic side - at least the products the insect are included in, as we are still not convinced that the taste of the insect itself are approaching this. But would this

have been any different for our informants, if we had provided them with other products? Other species? Instructions or recipes to prepare the insects, were they would be used in dishes and with other ingredients that would enhance the flavors of the insect (instead of providing an odd taste or providing nothing at all)? Are we capable of separating our embedded fear/disgust/non-willingness towards eating insects, to let the flavor and taste be dominant - rather than thinking that insects are not something we are to eat?

Edible, eatable and all that lie in between

What lies behind the ontionorms of the insects being non-eatable or -edible? Does our culture in the west prohibit us from placing insects within the same networks as food, and if so, what grounds lies behind this? It could just as well it be a matter of culture - a rather fluid concept, if you were to ask Annemarie Mol, as insects are not an unfamiliar practice in some parts of the world, but in the west we are not keen on eating them.

One factor could be the religious impact. The western countries have mainly been influenced by religions that relate to the Bible in some sense (or at least the Old Testament), where insects were represented as three of the ten Plagues of Egypt. Is the religious impact so deeply embedded in us in the West, that even the most persevere atheist cannot refrain him- or herself from their disgust to derive from this? Some of us do eat products containing hidden insects, like shellac and cochineal, without blinking an eye (providing off course, that we are aware of these products are originating from insects). And what about honey? This is not a product made from the actual insect, but it is technically partly made from bee saliva. These are somehow not products that face the same sense of disgust as other insects do.

The portraying of insects as a *dare* might also influence our perception of edible insects. As with the female on Kairovej, who instantly recalled the participants in "*Robinson*" eating insects, is often still alive and placed in between other unfamiliar food stuff like testicles, pigs-blood, eyeballs and the likes, as a challenge in a game-show. Insects are portrayed as something that should not be eaten, if only as a mean of something disgusting with the possibility of winning a prize in the end. The female at Thuja Allé also hinted this notion with her statement of "*diamond*" as her prize, *if* the male had not been truthful in his experience with the fried mealworms. The date snacks take this notion in naming their brand and called

it *Dare to Eat*. They recently changed their name to *Wholi*, maybe in order to get rid of the perception that it is a *dare*, to eat insects?

Insects in movies does as well face some projecting of what we as humans think is negative about the little creatures e.g. *Men in Black*, where the villain of the movie is being portrayed as a giant cockroach, the giant spiders in *Arachnophobia* or *Starship Troopers* where an enemy of giant alien-bugs are out to destroy humanity (and yes, we do acknowledge some positive portraying of insects in e.g. Disney-Pixar animated movies such as *A bug's Life* amongst others). The insect usually have its skeleton on the outside, it can have multiple legs, wings and travels in large quantitative and are the perfect example of what we portray as something being different from ourselves. But why this irrational thought of something that is different from us being portrayed as the villain in such movies? Is this what goes through our mind when we think of edible insects, as eating the villain from a horror movie? Most of our informants had some notions of the insect being a pest, and this can perhaps be traced back to a moment where the insect did play the crook in their own life. Maybe they had been bitten, stung, or had to flee from a large mass of crickets, whatever the case, the reality of the insect is perhaps being portrayed on to the edible insect.

What else can be edible for some while being eatable for others? Sushi? Tartare (raw meat)? Coriander? Everything? If we stick to the sushi-analogy, which are often used as an example when mentioning unfamiliar foods becoming familiar for us Scandinavians, this too faced some difficulties when firstly introduced to our food practices. However, raw fish, or even fish for that matter, is not an unfamiliar food item for us. As suggested by Snitkjær & Mortensen (2012), we do have our “own” Nordic sushi with marinated herring and gravad lax making other eating's with raw fish, not as unfamiliar to us. An argument could though be made, that the notion of raw fish and edible insects, are nothing alike except both being a novel food to begin with. Fish is fish, and even though the network of the fish entered the network of the edible insect for one of our informants (Male Barritvej), there are few similarities - except maybe for the case of shrimps bearing resemblance to locusts, therefore the nickname *sea crickets* (Van Huis et al., 2015).

Even if eaten, insects in many places constitute as a niche product. Within the EU, insects are placed under the novel food legislation, upholding its rank as an unfamiliar food item –

at least for the time being. But then again, so are e.g. chia seeds, the ancient Aztec superfood which gained so much popularity within the last couple of years, that every supermarket with respect for themselves sells. They were largely promoted for its health benefits and with every (health/fitness/food/fashion) blogger displaying of them in some sort of colorful manner, lined up with fresh fruits and cozy Sunday brunch with friends. They were not so much promoted for its flavor, as they were on its health benefits, addressing the utilitarian sides, but they were *also* displayed in such a colorful and neatly manner, playing on the aesthetics (not so much the seeds itself, but the serving of them) - much like when sushi gained its popularity, by approaching one hedonic features (Wansink et al., 2002). We did also see the male at Frederiksberg displaying the mealworm dish nice and neatly, posting it on Instagram, but with little luck - the insects were too much to handle for one follower, only seeing the (daunting) insect.

The matter of ontonorms

Throughout our analysis, different ontonorms were located; an ontonorm of what to eat in order to live a healthy life; an ontonorm of concealed and verified products being more safe to eat than non-concealed products; an ontonorm of health practitioners (us) saying what can be eaten or not; and an ontonorm of insects not being deemed a food item for consumption.

We have chosen to focus on two ontonorms, that resided within most of our informants households: the ontonorm of insects not being a food item and the ontonorm of concealed and verified food products being accepted as edible and eatable objects.

An ontonorm of insects not being deemed as a food object within the couples on Kairovej, Thuja Alle and Barritvej was well alive. In fact all the couples with the children, had to some degree a negative response when asked of what they thought of edible insects before being presented with some. If we dig a little deeper within that ontonorm of edible insects not being a food item, we have to take a step back and see where and how that ontonorm have started. It can be discussed if the ontonorm dates back to the human beings fear of new and different things, as the insect is remotely different from any characteristics that are familiar to us, and even deemed alien alike with its features being perceived as monstrosities compared to the features of humans. But why is this fear of insects and

differences so deeply rooted within us? Why are we so compelled to make everything that are deemed different from ourselves, an object of something we should not engage in? While we may never know the exact answer (and no we will not provide one as well), some arguments could be made (as we have done previously in *Edible, eatable and all that lie in between* section) that the insect in most cases are being portrayed as being a negative thing. As we saw with the movie references, so is the case in computer games, commercials for different cleaning supplies, and even the portrayal of bacterias within our mouths that needs cleaning with the newest toothpaste product. The insect is even being used as a mean to dehumanize different ethnicities as we have seen through various wars. So is this what needs to happen in order to change the perception of the insect as being deemed alright to consume as food? A revamp of image (maybe through a publicity agency) to make the insect a more palatable object? Or is it the case of introducing insects as food item to the younger population a way of breaking the ontionorm that resides right now? If we are to take a notion from our informants with children, it is maybe that, and perhaps the approach needs to start with the persons in charge (the adults, parents, the supermarket (buyers), media, the governments, and maybe even God if you believe in such).

The other ontionorm that resided within several of the couples, were the one of concealed and verified food products being accepted as edible and eatable objects as opposed to things found in the wild. But if we stop to think of that notion for a minute, is it not again a fear of some sort, this time just with objects of unknown origin? Several of our female informants craved a verification from us, that the products supplied to them were of an eatable form, and would not possess any danger if they indulged with the given products. So what has been lost from the time of hunters and gatherers? Are we so contempt, as humans, with products that come wrapped in plastic, that we cannot see ourselves eat anything without the plastic wrap? All of the products were concealed in plastic, delivered by a certified company that specialize in edible insects, but a confirmation from us were still needed in order for most of the females to even consider trying one of the products. So what is it that makes us verge upon this notion of everything needs to be verified in some way? For over 10.000 years, the human race have subsided on hunting and gathering food in order to survive, but since the evolution of how to preserve food started in 1813, the hunters and the gatherers of this world have been fewer and fewer by each decade

(Geoghegan, 2013). Now you can get bananas wrapped in plastic at you local supermarked (a feature that might seem unnecessary since the peel of the banana is there for a reason), and this is perhaps what can be constituted as the reason for our craving for validation. So does our edible insect products deem a chance of breaking not one but two of the ontionorms residing within our informants household even though it is wrapped, sealed and verified as a food item deemed eatable?

Reflections on choice of products

Would it have mattered if we had provided our informants with other products, than the ones we chose? Which enactments could have unfolded, if we had provided our couples with whole insects containing legs? And would it have changed the ontionorms residing within each household?

The selection of products came to be as a mean of, wanting to provide our informants with easy-access and ready to eat products, like the date snacks and the muffin-mix where the insects are hidden, as suggested by other studies, to whole insects that for some (or most) of us, would find it a little more demanding to eat, like the wax moth larvae. Our own pre-understanding might have caused some bias here, as one of us (female) had a distinct disgust towards the whole wax moth larvae - whether this is the gender-cards that emerges yet again, is still unclear. Therefore we did not set out to explore insects with legs, as the daunting-factor seemed to increase with the wax moth larvae.

This leaves us with the questions of, which enactments could have unfolded, if we had provided our couples with whole insects containing legs? And should it then be the larger or the smaller kinds? Child J made a comment when being presented with the mealworms saying that these were also the ones, Noah's lizard is fed. The mealworms are food for lizards for him, as seen with kangaroo meat as food for pets in Australia (Probyn, 2011). Would this rather innocent comment from a child have been stated, if we had presented him with other species (that are not food for Noah's lizard)? While Kairovej *did* manage to explore the whole wax moth larvae, as Child S had found a recipe online, they did not try to explore the mealworms, therefore it will remain a mystery. But it does raise the question, if different species would have caused different enactments of the insect? An argument of such, can of course not be answered here, but the variety of insects product we did supply,

but the notion of the insect was still characterized as the object that withheld our couples from fully accepting the products as food items. It does however open up for further studying on the matter of difference within the species and products, and this would (undoubtedly) have just as many multiple enactments, realities, associations as we saw with our informants, provided with just the few products they explored.

Sum up

As our informant couples explored the insect products, they had different experiences with them. For some, they were demystified - the insects went from being an intangible and unfamiliar object, to something that was not as scary as to begin with. For others it transformed from something they had tried before and had positive experiences with, to a negative, thus situating the willingness towards entomophagy. The progression of the insects going from edible to eatable was not a linear one, as it changed.

But even so, informants were still questioning why they should eat insects. Arguments based on utilitarian notions, with the insects as being both healthy and sustainable, did not prove to be enough for our informants, to be convinced to incorporate insects in their daily life

Suggested by several studies, for insects to be accepted as food for Westerners, it could be hidden and/or served in familiar style in products, that are already known to us. Our informants had similar experiences, having the easiest time trying the products were the insects were grinded into flour and then served in a matter they knew - e.g. insect flour in bread, muffin-mix and the date snacks. With the whole insects, our informants in general had the easiest time with trying the mealworms. A notion on this could be, that several of our informants had seen them in either supermarkets, shops and/or had tasted them before, thus they were not as unfamiliar as e.g. the wax moth larvae. These caused some issues with our informants, with several not even trying them - even though the wax moth larvae had been cooked. The associations connected to these were too strongly in a negative sense, that it could not be enacted as being a food item.

As also suggested, taste should be what edible insects are to be sold on, then playing on our hedonic sides. While some of the products did become eatable for some of our informants, they did not have us convinced that the insects itself were appealing to their hedonic sides.

As stated by our informants, which sparked this discussion, was still remaining: *why* should they eat insects?

There are many negative associations connected to insects, which can have an impact on our willingness towards entomophagy. Insects are not something a familiar practice for us in the west, which also were applicable with with our informants. Some thought they were frightening to look at and did not feel any need to eat them at first, but convinced themselves during their time with the insects - maybe as an obstacle to overcome, as part of a competition of just out of courtesy to us and our project.

Conclusion

Insects. Edible insects to be more specific. What to do, and how do they conquer a Danish kitchen, and are they even supposed to? We have throughout our analysis and discussion observed the edible insect become a multiple object, enacted through various actors, and created networks to other parts of the food spectra. We have also witnessed the insect create networks to gameshows, Disney movies, diamonds, travel excitements, negative associations and the list goes on. The case of the edible insect making its way into the kitchen of couples from Greater Copenhagen is not an easy task to succeed and was perhaps not meant to. It will however demand a reassessment of how food is thought of in order for it to triumph.

We have seen the different edible insect products be enacted as a dinner with family, a muffin creation with the children, as a fillet of fish that just needed to be battered and deep fried, a creativity and freedom within the kitchen, and we have seen the insect being enacted as a participation in a Master Thesis. Had it not been for the cause of helping out a couple of Master Thesis students with their project, the chance of them eating a edible insect, would probably not have happened except as a gimmick or as a dare as some of informant mentioned.

To some the *edible* even became *eatable*, and to most of our informants that had not delved with insects as a food item before, the first brick was laid in the "edible insect house". To a few the edible insect products were enacted as any other food item that they

used in their everyday practices, but for most of our informants it became an assignment of sorts, something which demanded that they had to look up how to use the specific ingredient. As we have stated throughout our analysis and the discussion, the insect was not regarded as a food item to most of our informants during the pre-interviews, but once we reached the aftermath, several of our informants stated that the edible insect had been demystified. A strange food item that had been conquered and the banishment of fear for new food products had taken place. Prior studies have suggested, that if insects are to become incorporated in our food practices, we need to approach the hedonic side and put emphasis on *taste*. The taste of the insects was something that divided our couples. While some of our informants liked the dishes they made with the products, others refrained from using more insect products after the first encounter. However, whether it was the actual insect itself that provided the taste, it being the good, the bad or even the neutral, is still up for discussion.

If the edible insect is to become an eatable one and be a food item for the future, it needs to be related to something that is of “normal” practice within the Western culture. The products worked great in dishes already known to our couples, but the clear distinction was that the insects needs to be non-visible and served in a familiar style. If the products were blended in with known food items, it did not seem to be as big of a hindrance as when the insects were whole. A side note could be, that the case of the edible insect needs to be presented as early as possible within a person's life in order for it be deemed a normal food practice. From our couples with children, we saw a clear distinction in what age the children were, when they were presented with the different products. An inherent food culture within the different households (and societies), dealing with the ontionorm of insects not being a food item, is due to be changed in order for the insect to be a household name as food.

The question of *why* is also a matter that needs attention if the edible insect is to be incorporated. We as students of food, know which beneficial aspect the edible insect brings with it, but to the individual with no interest or knowledge, this answer needs to be clear. A

combination of education, similarity and taste could be the answer to how the edible insect is to conquer the west.

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Appendix Outline

Appendix 1 - Letter to informants

Appendix 2 - Pilot interviewguide

Appendix 3 - Pre-interviewguide

Appendix 4 - Post-interviewguide

Appendix 5.1 - Pilot Transcribe - Single Female

Appendix 5.2 - Pilot Transcribe - Single Male

Appendix 5.3 - Pilot Transcribe - Couple with Children

Appendix 5.4 - Pilot Transcribe - Couple (+60)

Appendix 6.1 - Thesis Transcribe (Pre) - Kairovej

Appendix 6.2 - Thesis Transcribe (Pre) - Barritvej

Appendix 6.3 - Thesis Transcribe (Pre) - Lyngby

Appendix 6.4 - Thesis Transcribe (Pre) - Frederiksberg

Appendix 6.5 - Thesis Transcribe (Pre) - Nørrebro

Appendix 6.6 - Thesis Transcribe (Pre) - Thuja Allé

Appendix 7.1 - Thesis Transcribe (Post) - Kairovej

Appendix 7.2 - Thesis Transcribe (Post) - Barritvej

Appendix 7.3 - Thesis Transcribe (Post) - Lyngby

Appendix 7.4 - Thesis Transcribe (Post) - Frederiksberg

Appendix 7.5 - Thesis Transcribe (Post) - Nørrebro

Appendix 7.6 - Thesis Transcribe (Post) - Thuja Allé

Appendix 8.1 - Photos - Kairovej

Appendix 8.2 - Photos - Barritvej

Appendix 8.3 - Photos - Lyngby

Appendix 8.4 - Photos - Frederiksberg

Appendix 8.5 - Photos - Nørrebro

Appendix 8.6 - Photos - Thuja Allé

Appendix 9 - Photos of the Products

Appendix 10 - Mapping - Pilot Interviews