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TEXTURES OF FOOD: DIFFRACTING EATING
RELATIONSHIPS IN AN EARLY YEARS
SETTING

T ANASTASIOU

PhD 2018

TEXTURES OF FOOD: DIFFRACTING EATING
RELATIONSHIPS IN AN EARLY YEARS
SETTING

THEKLA ANASTASIOU

A thesis submitted in partial fulfilment of
the requirements of the Manchester
Metropolitan University for the degree of
Doctor of Philosophy

Education and Social Research Institute
Manchester Metropolitan University

2018

Abstract

This thesis interrogates young children's embodied engagements with food and aims to augment knowledge around food and eating. The study is based in a nursery in an area of Manchester, England, known to have high levels of poverty and offers free places to 'disadvantaged' two-year-olds. Moving away from more familiar narratives of healthy eating and promoting a balanced diet in the early years, this research closely examines powerful stories around food, which are usually silenced or overlooked by practitioners or/and the researchers. This work seeks to foreground the affective relationships children have with food in order to understand why some children enjoy eating, whilst for others, it is a situation that is fraught with tension, anxiety and frustration.

Drawing from Actor Network Theory, New Materialisms (NM) and Post-humanism, the study turns to the post-humanities, which offer new opportunities, as well as produce particular challenges, in relation to ways of 'being' and 'knowing' in research (Lather and St Pierre, 2013). In the process of assembling two generally quite routinised moments that puncture the nursery day: meal and snack times, my improvised form of 'networked' fieldnotes became attuned to the variety of heterogeneous elements contributing to these complex events, such as chairs, smells, saliva, cutlery, plates, human bodies, ideas, policies, rules, food, video clips, scribbled notes, theoretical and methodological frameworks and my own attempts to engage with food and eating in the nursery. Thus, while thinking relationally and acknowledging the agency of both subjects and objects, attention has been paid to the vast array of entities in circulation and in intra-action in human, more-than- and other-than-human worlds. In this research project, the data, nursery, participants, food, and research processes are all made of, and unmade by matter, materials and discourse, which necessitated a New Materialist methodology.

In this post-qualitative study of young children's relationships with food, particular attention is paid to the ways events are produced both in, and from, the relations between subjects and objects in non-stable nursery and other environments. Drawing on a complex network of literature around food and eating, the diffractive analysis of a meal and snack time in a nursery opens up to the ways so many, varied entities, are implicated

in a world of symbiosis and becoming, generating interesting opportunities for rethinking early years eating practices.

The journey to Ithaca....

As you set out for Ithaka
hope your road is a long one,
full of adventure, full of discovery.
Laistrygonians, Cyclops,
angry Poseidon—don't be afraid of them:
you'll never find things like that on your way
as long as you keep your thoughts raised high,
as long as a rare excitement
stirs your spirit and your body.

...

Keep Ithaka always in your mind.
Arriving there is what you're destined for.

...

Ithaka gave you the marvelous journey.
Without her you wouldn't have set out.
She has nothing left to give you now.

And if you find her poor, Ithaka won't have fooled you.
Wise as you will have become, so full of experience,
you'll have understood by then what these Ithakas mean.

By C. P. Cavafy

C. P. Cavafy, "The City" from *C.P. Cavafy: Collected Poems*. Translated by Edmund Keeley and Philip Sherrard. Translation Copyright © 1975, 1992 by Edmund Keeley and Philip Sherrard. Reproduced with permission of Princeton University Press.

Source: *C.P. Cavafy: Collected Poems* (Princeton University Press, 1975)

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Thank you is not enough...

Chapter 1

Mapping the scene

“Food is about pleasure, about community, about family and spirituality, about our relationship to the natural world, and about expressing our identity.”

(Michael Pollan, 2008:8)

“The fact is that the beginning always begins in-between”

(Deleuze and Guattari, 2004:329)

1.1 Introduction

This thesis begins in-between the pleasures and torments of food. Beyond the most obvious role of food in our life, which is the necessity to sustain life and maintain our bodies, food is also an important part of celebrations, a cause for getting together, within families and across cultures, stimulating pleasure and taste satisfaction. Although food is plentiful and taken for granted by some, it is scarce for others. Some find it pleasurable to eat, whilst others are tormented at the thought. Over the last couple of decades in the United Kingdom, food and food consumption within schools has raised a number of concerns in relation to young children’s health and well-being, with particular studies highlighting the obesity crisis among young children (Conolly, 2016), but also the benefits of eating together or eating more healthily as a means to well-being (see for example Pike and Leahy, 2012; Michels et al., 2012; Orrell-Valente et al., 2007; Elva, 2006; Ansem et al., 2014; Welch et al., 2012).

This research takes up the idea of young children’s relationship with food in ways that augment these and other studies. It is based in a nursery that offers free places to ‘disadvantaged’ two-year-olds as part of a policy introduced in September 2014 by the Coalition Government, which targets what are described in policy terms as ‘economically vulnerable families’ (Department for Education, 2014). The aim of the policy is to enable children from ‘disadvantaged’ backgrounds to access high-quality early education. There are many different ways to read terms such as ‘disadvantaged’, depending on priorities and research interests, but if tied to ‘economically vulnerability’, it refers to families living within communities with a lower socio-economic profile. Against this policy backdrop,

early years practitioners, whose role is to work closely with two-year-old children and their families, are implicated in a programme where the aim is to redress ‘disadvantage’ (Department for Education, 2014). As part of a policy initiative to ‘close the gap’¹ between children coming from different socio-economic backgrounds, early years practitioners have a responsibility to consider children’s eating habits and behaviours. This adds layer of complexity to meal and snack times where adult discourses of care and education, as well as children’s own embodied relations with food, have to be negotiated.

1.1.1 Research Aims

The main aim of this research is to understand something more about children’s embodied relationships with food, augmenting knowledge around food and eating that goes beyond notions of healthy eating and a balanced diet. Through this work, my intention is to examine the intricacies and complexities of food stories in early years that are often silenced or overlooked. More specifically, the research focuses on the affective encounters that emerge in-between children and food, generating more distributed ways of knowing about children who enjoy eating experiences in a nursery, as well as those for whom eating presents a situation that is fraught with tension, anxiety, and frustration.

The research questions below guide this study:

1. How does ‘healthy eating’ literature contribute to more relational and ‘networked’ understandings of early years practitioners’ perceptions, and responses to, young children’s relationship with food in nursery settings?
2. How do theoretical resources drawn from Actor Network Theory, New Materialisms and Posthumanism contribute to different understandings of children’s embodied relationships with food? What do such alternative understandings have to offer children, parents, and practitioners?

¹ This ‘gap’ refers to the disparity in academic achievement between children from different socio-economic backgrounds, as well as the differences apparent between children in terms of their cognitive, social, and behavioural development (Department for Education, 2011).

3. How do young children 'occur' within more complex assemblages of food, subjects, objects, technologies, institutions, cameras, pictures, practitioners, and senses?
4. How do relational ontologies facilitate looking beyond binary opposites such as human/non-human, researcher/researched, practitioner/young children, to think in new ways about young children's relations with food in a nursery?

1.2 Brief overview: children's relationships with food

Mealtimes play an important role in young children's development (Scaglioni et al., 2008; Birch and Davison, 2001). Tassoni (2012) suggests that mealtimes shape children's behaviours, influenced by their willingness or unwillingness to eat, increasing happiness, stress, and sometimes anxiety while children learn about different textures, smells, colours, skills, gestures and about communication around the table. Young children can sometimes be upset around food, sometimes refusing to eat, and making it a stressful experience for their parents, teachers, and carers, who care about their health and well-being. Consequently, some might find it challenging to cope with a child's appetite, her behaviour and the independence she develops in relation to food choices (Tassoni, 2012).

Over the past twenty years, journal articles, government documents, green papers, reports from schools and policy documents, as well as critical academic research have highlighted how young children and their eating habits, carry particular concerns around children's eating, health and well-being (Rodgers et al., 2014; Vandeweghe et al., 2016), especially when examining eating in a nursery environment. The role adults play in young children's relationships with food has also been explored in relation to the influence adults have on children and their eating practices (Kontopodis, 2013). Emphasis has been placed on the practices and pedagogies in schools' and nurseries when educating children about the value of healthy eating in an attempt to prevent obesity, anorexia and other eating disorders (Shilling, 2008). For example, Kontopodi's ethnographic work (2013; 2015; 2016) in Germany and Brazil, proposes that eating in nurseries can be translated into pedagogy, as it is a means for pleasure and/or health.

Statistical and numerical data have been collected via surveys and correlational studies in the field of young children's eating habits, that document the factors influencing

children's eating behaviours, such as gender, age, parental and practitioners' involvement, cultural and socioeconomic background etc. (Blissett et al., 2006; Buijzen, 2009; Brown, 2014). However, the nature of, and heavy-reliance on quantitative data alone has led to limited information being available regarding intricate ways socio-cultural factors affect children's eating. In cases where qualitative research has been undertaken, very little research attention has been given to the nursery practices compared to what seems to be happening in family contexts (Ahluwalia et al., 1998; Curtis et al., 2010).

1.3 Policy context

Reviewing the Health Survey for England 2015, 'Children's body mass index, overweight, and obesity', published in 2016 by Conolly (2016), concerns are raised about the obesity crisis among young children. Specifically, 28% of children between 2 to 15 years old are identified as overweight or obese. It appears that 9.6% of reception boys were obese in comparison to 9.1% of girls (Conolly, 2016). The proportion of boys in older ages was also higher compared to girls. Furthermore, it was reported that the percentage of children described as obese from lower income households was double in comparison to children living in more affluent households (Campbell, 2016).

On face value, taking into account the statistics above, and reviewing much of the literature around food and eating in schools, it is not surprising the Department for Education and the Department of Health have been afforded significant roles producing legislation and policies around eating in educational settings. The importance of healthy eating is a critical pillar for the NHS and local authorities in their attempts to address the issue of childhood obesity, which has been reported to have long term effects on children's and adults' health (Conolly, 2016).

Public health is considered a crucial issue for the UK government, intimated through policy documents archived on the state's official website. Written into a number of policies, are documents offering guidelines intended for parents and professionals distributed by the Department of Health, and Department for Education, to inform people of their right to stay healthy and ways to make healthier choices, no matter what

their circumstances. Some of the measures publicised include the Budget policy paper, which announced an action plan to tackle obesity levels by increasing physical activity and reducing sugar (HM Treasury, 2016). More specifically, it was announced that soft drinks companies will pay a tax on drinks with added sugar from April 2018 (HM Treasury, 2016).

In the following section, I discuss how such policy initiatives (Department for Education, 2017; DfES, 2007) that I refer to here as ‘actors’, a term explained in the following chapter (see section 2.7), have an influence on public and professional perceptions of children’s health, including eating habits and the way these impact on practices in early years settings. The *Early Years Foundation Stage* (EYFS) significantly influences practice in early years settings in England (Brooker et al., 2010). The EYFS provides the standards that child-minders, preschools, nurseries and school reception classes should meet in order to demonstrate they are making every possible effort to ensure “children from birth to 5 years old grow in an environment which supports their development and learning” (DfE, 2017:7). More specifically, the EYFS framework focuses on the welfare of young children; learning and development; and the assessment of children’s progress, with children’s health and self-care a key area of physical development, “children know the importance for good health of physical exercise, and a healthy diet, and talk about ways to keep healthy and safe” (DfE, 2017). With the recent review of the EYFS (April 2017), a stronger emphasis has been placed on children’s well-being and safeguarding, a measure that also requires new paediatric first aid (PFA) training requirements for practitioners (Department for Education, 2017). A perceived benefit of its application is that parents can be confident that their children will receive ‘quality’ experiences that will educate their child about healthy lifestyles, including issues around eating.

In a study conducted by Brooker et al. (2010), the opinions of over 190 practitioners were recorded regarding the implementation of the EYFS in their daily work with children and families. During the first phase of this research, focus groups with practitioners invited them to share opinions about the role of food and drink in young children’s social and physical development. Their opinions were divided regarding the freedom children should have when choosing what to eat, with some practitioners highlighting the

importance of getting children involved during the preparation of their snacks and meals (Brooker et al., 2010). They describe this as an excellent activity for children, helping them to learn more about the procedures before eating including washing hands, handling tools, and selecting healthy foods (Brooker et al., 2010).

The following 'actors' connect to the EYFS, more specifically targeting the issue of 'healthy eating' in schools before moving into interventions during pregnancy and early life. In July 2013, the Department for Education set out 17 actions to transform what children eat in schools. Specifically, the *School Food Plan*, which has the support of the Secretary of State for Education, provides an agreed plan for head teachers, in order to help them improve the food offered to children during mealtime. School meals, according to the standards, should include fruit and vegetables, high-quality meat and fish, carbohydrates such as bread, cereals, and potatoes, and any drinks or snacks high in sugar and fat should be restricted or occasionally, limited and controlled (Department for Education, 2013).

An organisation aiming to support healthy eating for children and to tackle childhood obesity and malnutrition is the *Children's Food Trust*. Working closely with local authorities, health and education representatives, nurseries, schools, parents, practitioners and children, their mission is to improve the variety and quality of the food young children eat in early years settings and schools (Children's Food Trust, 2015). Through cooking clubs and food and nutrition guidelines in schools and nurseries, they try to encourage children to learn more about nutrients and eating well so they can take care of their own health and well-being (Children's Food Trust, 2015). Their practices are framed and developed following Ofsted's new *Common Inspection Framework*, as HMI inspectors are interested in assessing how nurseries encourage children, parents and guardians to gain "knowledge of how to keep themselves 'healthy', often looking for 'evidence' of a whole setting approach to exercise and healthy eating" (Children's Food Trust, 2015:1).

The role of Ofsted is significant in assessing how schools respond to their call of healthier eating. Specifically, in their report in 2006, entitled 'Healthy eating in schools', they

respond to public concern about the increasing rates of child obesity. Key findings from their inspections in primary and secondary schools between 2006-2007 conclude that school meal standards have improved, especially in primary schools. In addition, although schools recognise the importance of promoting healthy eating, Ofsted noted that help provided to pupils and the opportunities to encourage and develop their own 'healthy' choices are limited, particularly in secondary education. For example, it was reported that in secondary schools, vending machines were accessible containing products high in sugar and fat.

Public Health England, along with a number of other related documents that the current Government has published on their website, makes suggestions about how people can eat healthily following a balanced diet, which can include a variety of foods in the right proportions (Public Health England, 2016a). An example is the *Eatwell Guide*, a policy tool that includes the Government's suggestions on healthy eating. More specifically with their document *Government Dietary Recommendations*, they propose the recommended energy levels and nutrients that males and females aged 1 –18 years and 19+ years need; recommendations based on the Committee on Medical Aspects of Food Policy (COMA) and the Scientific Advisory Committee on Nutrition (SACN) (Public Health England, 2016b).



Figure 1 The Eatwell Guide (Public Health England, 2016)

The Department for Education works closely with the Department of Health and they actively publish a number of documents about children's health. Some of them include statistics, for example relating to child development and funding allocations between 2015 – 2016 for free school meals. They publish information for parents and practitioners such as guidelines for parents of premature babies (CAMHS). In the '*2010 to 2015 government policy: children's health*' (May 2015), attention is given to women during pregnancy and after birth, more specifically, the need for them to work closely with the NHS throughout this time. The *Healthy Child Programme*, included in the aforementioned policy is also a significant recognition of the importance being placed on early intervention into babies' health by the Government. This programme is offered to every family in order to ensure parents and carers are able to protect their children from diseases and keep them healthy and safe. It informs them about how to reduce levels of obesity and encourages mothers to breastfeed (DfE and DoH, 2005). At the same time, through the *Healthy Start* (DoH, 2005) programme, they offer support to mothers from low-income families to stay healthy by providing them with vouchers while being pregnant to buy fresh milk, fruits, vegetables, vitamins and formula milk.

These and other related policies, guidelines and information provided by the DfE and the DoH, give an indication of the government's interest, and levels of intervention, in young children's health and development. I have drawn on some of the policy-related actors that will be picked up again in chapter four, when I explore the way school eating policies and practices, among a network of human and non-human actors, influence children's relationship with food, including for example the NHS, children's bodies, the education system, practitioners, nursery spaces, obesity narratives, and ... and ... and...². When

² I borrow the conjunctive term 'and ... and ... and ...' from Deleuze and Guattari, a phrase that will be used extensively in this work. In their book '*A Thousand Plateaus*', Deleuze and Guattari (1987) use the term 'rhizome', which refers to a way of thinking about the world without hierarchies and order. The rhizome allows me to think about the body connecting with an infinite number of other bodies, in a variety of ways and directions (Deleuze and Guattari, 1987). Thus, in this research where I talk about assemblages and continuous relations, I adopt a sense of rhizomatic thought as it helps me to open up life to variation and difference: "the fabric of the rhizome is the conjunction, "and . . . and . . . and . . ." (Deleuze and Guattari, 1987: 25). In that way, the body and any assemblage that I refer to within this research is open, it can be multiple, and is a continuous becoming rather than a static being (Malins, 2004).

committed to a topic that involves contributions from both human and non-human entities, it is important to work with theoretical and methodological approaches that complement the need for a more-than-human lens in the nursery setting.

1.4 Theoretical context

1.4.1 Meeting ANT

Coming from a background which includes an undergraduate degree in Classical studies and Philosophy and master degrees in Human Resource Management, Educational Leadership, and Educational Research, I was initially introduced to Actor Network Theory (ANT) when I started my Ph.D. over the first few meetings with my supervisors. Reading about ANT I was fascinated, as I realised how far this might take me with regards to augmenting the views I had about the world around me, which were far more static, fixed and specific. While reading more and more about ANT, I became open to the complexities of reality and the multiple perspectives of things always-in-relation.

As the focus of this research was on complex networks that involve food and children, I found ANT helpful, as it enabled me to start thinking about this research in a more relational way. Young children's institutional settings are particularly heterogeneous organisations and this study was an opportunity to learn more about how the use and application of ANT might help me examine the complexity of the nursery. ANT's aim to go beyond the subject-object division by recognising the agency of non-humans (Latour, 2005) enabled me to consider how relationships between humans, 'things' and other heterogeneous components of a network are organised and stabilised, in addition to what these relations might produce (Callon, 1991). One of the most important principles of ANT, according to Latour (2005: 4-5) and Law (2007), is the way they understand what constitutes 'social'. For them social is produced by the associations between humans and more-than-humans, which then create networks of relations (Latour, 2005; Law, 2007). I

In addition, I find the use of 'and . . . and . . . and . . .' ethical, as in that way the reader is not restricted and committed only to what I have written, but they are free to add other things to the assemblages developed within this research project (Du"ttmann, 2002).

found this idea inspiring for this research topic, as food and mealtime could be viewed as being intricately composed of a variety of different 'social' elements such as material, technical and sensual entities; chemical, sociological, economic, cultural, biological and ecological processes; tables, smells, colours and routines, to name few (Bryant, 2015) that come together in order to structure 'social' associations (Law, 1991b).

Not long after I began my Ph.D., I started to visit a nursery in Greater Manchester. Firstly, I wanted to become more familiar with the way nurseries in England operate and secondly and more specifically, to find out more about how mealtimes in this nursery were organised. After visiting the setting for a month, I became increasingly interested in the repetitiveness of the nursery's mealtime practices, and wondered what was the purpose of all children eating at the same time each day or of asking children to sit around tables, always using forks and knives? Why do they insist on baking a cake when it is someone's birthday? In relation to such events in the nursery, Kien (2016) suggests that as humans, we need to find ways to make things material, even our culture. To make things material, we need to make them matter to us, and to matter they need to help us in our daily life and make things easier for us, and this is how they become necessary across time (Kien, 2016). Thus, something becomes a routine, then a custom, a habit and eventually a cultural practice of daily life.

My Greek-Cypriot background is something I will keep referring to, as it is a crucial actor in the production of this thesis. Food and eating for me is part of the way I 'perform' my cultural identity and my familial history. It has been passed (down) to me and I feel it is important to continue this tradition. Some cultures' eating traditions or customs prefer using fork and knives, some use their hands; some people sit around a table to eat, others sit on mats or a blanket on the floor; some eat together with family or friends; others eat while watching television, and others after they pray. Practices differ from culture to culture and within cultures, from generation to generation and over time and such practices are often embedded in the material objects of cultural traditions. These materially-embedded traditions and practices, according to Hay (2001) are called 'mattering', importantly playing with the idea of the material aspects of eating as well as referring to something that matters to us, emotionally or physically.

Thinking with ANT forces a relational experience of snack and mealtimes at the nursery, increasingly becoming attuned to the complexity and heterogeneity of subjects and objects and their connections and performances within food networks. ANT's plurality moves beyond a focus in nursery that is dominated by the human, without excluding the children, practitioner or myself. Its relational capacity draws in the plethora of connections created as a food event occurs in the nursery: relations between the camera taking a photograph or videoing during visits to the nursery, the smells, the cultural 'mattering', the theoretical concepts in play, the children, policies and practices at work, the ideas and views of the teachers, the food and the space. My claim is that in order to understand the various relations that are always in movement with the children, the food, eating habits, behaviours, etc., ANT's causal theory of relations has helped me organise such associations and pay more attention to the complex networks that envelop the researcher's, the parent's, child's and practitioner's experiences (Wildman, 2006).

ANT was particularly helpful in organising the vast amount of resources and information around healthy eating. A food network is constructed as a review of literature and later entangles with the analysis chapters across the thesis. Adopting ANT as an approach to networking the literature (see chapters 3 and 4), enabled the linkages between heterogeneous entities to be identified and described, helping me gain an understanding of the complex relationships and dynamics occurring between children and food.

1.4.2 Entangling with New Materialisms

The purpose of this research was to produce new understandings about young children relationships with food by challenging the anthropocentric gaze. In my efforts to move away from a human-centric way of thinking about, and observing in the nursery, I found myself entangled with relational materialisms. This term comprises a broader theoretical field influenced by Bruno Latour's ANT (1996, 2005), in addition to feminist post-structuralism and combining the type of materialism that Donna Haraway (1997; 2008) and Karen Barad (1998; 1999; 2007; 2008) have been advocating since 1990. In the production of this research, I also draw on some of Deleuze's and Guattari's work (1987,

1994) that is caught up in the ‘material turn’, ‘material feminisms’, and a ‘posthumanist turn’, ideas which will be discussed in more detail in the production of the ‘Methodological Background’ (Chapter 5). A relational methodological approach enables more complex understandings of how children emerge in a relational field where both humans and non-humans have equal capacities in their production (Barad, 2007; Fox and Alldred, 2015a; Law and Hassard, 1999; Latour, 1999a).

This research with young children necessitated the ability to think *with* things rather than thinking *in* things (Taylor et al., 2012). Sylvia Kind (2010), in her research drawing on the visual arts, explains how important is to think, listen and care about things in an attempt to reduce things to surface qualities and functions. Initially looking at the photographs I collected, I could understand how the children and practitioners could be seen as active, but I did not experience the tables, the smells, the food, me, the photographs themselves as active too. I reflect on these initial struggles here, as throughout the thesis, I have found myself having to actively resist falling back into familiar, more comfortable and anthropocentric ways of thinking, looking and writing, even though theoretically immersed in ANT, new materialist, and posthuman thinking. I found myself persistently confronting tendencies to return to the child, putting her at the centre of the action, re-positioning the practitioner, child and my self as entities who were taking decisions and responsible for everything that was happening. Experiencing the place where children ate their lunch or snack, as an assemblage, moving beyond the individual child, was something I had to keep attuning my self to. Duhn’s approach was useful, as her work focuses on bringing her self as a researcher together with other things to produce the “pedagogy of place as assemblage” (2012:83), in order to be able to explore the child’s entanglements with other humans and non-humans.

Posthumanist and material feminist theories, inspired me and this work. They became ‘actors’ in an ever-increasing food network forcing re-considerations of methodologies and experimenting with how research might be done in a different way in order to be able to see the world differently. In this research, snack and mealtimes are re-conceptualised as assemblages composed of both subjects and objects where the focus lies in the energies, intensities, and forces generated among and in-between all the

heterogeneous entities within each assemblage.

To observe and analyse eating events as more-than-human data assemblages, I turned to a multi-sensory, ethnographic case study and drawing from Barad (2007:170), I aimed to conduct an analysis where ‘bodies do not simply take their place in the world ... rather “environments” and “bodies” are intra-actively constituted’. By carrying out such an analysis, I wanted to sense the connective ability between all entities, things, ideas, subjects, in an attempt to engage with mealtimes (Bradley et al., 2012). The relations made and unmade between entities interested me with regards to how food, children, place, practitioners, and senses can produce a symbiosis, where new opportunities for connections are created as well as new ways of becoming. The thesis problematises, unsettles and renders more complex the relationships children have with food in a nursery as well as explores the ways young children occur within complex assemblages of other humans and non-humans such as food, senses, theories, policies, practitioners, toys, cutlery ... and ... and ... Understanding that children interact in a space where human and non-human entities are both constitutive forces in children’s becomings, I wanted to put relational materialism to work to go beyond traditional qualitative analysis when dealing with ‘educational’ data. Knowledge production was distributed across heterogeneous entities such as me (researcher), my phone which was used as a camera, my notes, children, practitioners, food, toys, and ... and ... and ... (Bennett, 2007).

1.5 Structure of the Thesis

This thesis is organised in a way that resonates with the complexity of its research focus, composed of entangled, tentacle-like, material semiotic events, data, thoughts, feelings, memories, affects, emotions, matter, narrative, that all come together in order to feed into the events that occur in the nursery. Each chapter is different but all are simultaneously interrelated. More specifically, I encourage the reader to engage with this thesis as a past-present-future assemblage of thoughts, sensations, notes, memories, photographs, theories, frameworks and affects. It is a ‘research assemblage’ (Fox and Alldred, 2014) of human and non-human relations within a research design (Fox and Alldred, 2017), consisting of methods, theoretical frameworks, data, pictures, onto-

epistemologies, researcher, supervisors, children, food and ... and ... and ... By reading and structuring this research as an assemblage, my aim is to show that relationships can shift - nothing is fixed and stable, allowing a number of entities to enter and leave the assemblage, always transforming the final outcome as it engages you, the reader (Deleuze and Parnet, 2002).

Before providing the outline of this research assemblage, I will explain the affordances of the theoretical movements generated by this study. By initially going to ANT, I was able to make vital and vibrant connections with Feminist New Materialisms as the research assemblage took shape. The research assemblage you are about to engage with, and the 'journey' it diffracts is not linear, but an amalgam of continuous readings, learning, practicing, feelings, writing and thinking. A visceral presentation of this journey is embodied through the theoretical shifts I experienced as a researcher. As I embarked on this research project, my previous theoretical background was in interpretivism and constructivism, therefore I was involved mainly in qualitative research, but this doctoral project demanded very different onto-epistemological commitments that seemed so far from where my Masters research had been positioned. Starting with ANT I managed to become open to the complexities of a more relational world as it enabled me to see the multiple perspectives of things always connecting, in movement. ANT enabled an exploration of the complexities produced across the many entities participating in 'the nursery', where the research was focused. ANT worked as a stepping-stone into this new way of thinking for me. At the same time, dealing with the complexity of eating events in a nursery, I needed a mixture of methodologies which were going to help me to challenge taken-for-granted ideas about young children and their relationships with food, something that I believed could be done by disrupting the centrality of the human. Thus, both ANT and FNM were incredibly helpful in enabling me to de-centre and de-privilege the individual human. ANT's causal theory of relations was particularly helpful when trying to follow the complex networks evolving in the Food Network (Wildman, 2006). At the same time, FNM allowed me to move away from familiar narratives around food and healthy eating, and helped me to explore the micro and hidden/overlooked in eating events with young children.

This next section will outline the structure of the thesis, articulating my thinking and writing processes. Chapter two examines the nuances and challenges presented by the key concepts of ANT, such as 'actor', 'actant', 'actor-network' and 'agency' in order to understand the production of the 'Food Network' (Chapters 3 and 4).

The third chapter (Food Network: Child Development) together with the fourth (Food Network: Milk), constitute the literature review around young children's nutritional health and especially eating behaviours, drawing on theories, statistics, concepts and debates from academic disciplines including social policy, psychology, history, education, and health. These two chapters are constructed in a way to foreground the complexities of children's eating by mapping the literature as a 'food network'. The actor-networks composing this food network are 'Child development' and 'Milk'. The aim of these two chapters is to develop a theoretical and critical 'networked' understanding of how early years teachers and practitioners have come to perceive, and respond to, young children's relationship with food and their nutritional health in nursery settings.

The fourth (Methodological Background) and fifth (Assembling Research Methods) chapters set out the design and methods adopted in this study. More specifically, the fourth chapter discusses ontological, epistemological and methodological issues. Methodologically, this study pays attention to the relationality in more-than- or other-than-human worlds, acknowledging the researcher's involvement in this research process. The sixth chapter (Assembling Research Methods) places emphasis on the multi-sensory ethnography as method of data collection as well as how an assemblage of methods and processes were employed.

The seventh (Becoming Monster) and eighth (Kiss) chapters introduce the analysis while attempting to engage with different ways of seeing and thinking with data in educational research. Experimenting with a diffractive analysis, food's symbolic, relational and affective character during meal and snack times in a nursery is examined. Each of these analysis chapters works as a network with their respective literature chapter ['Becoming Monster' net-works with 'Child Development' (chapter3) and 'Kiss' net-works with 'Milk' (chapter 4)]. Together, they build an accumulative story as they work for, and with, each

other in order to produce new understandings about young children's relationships with food.

The final chapter draws the study together, discussing the significance of the thesis in a number of ways. Chapter 9 examines the challenges I faced and continue to face when trying to bring theory to research practice. It includes an interrogation of the methodological approach used to produce this research project, in addition to outlining how this work contributes to knowledge in the field.

Chapter 2

Theoretical Orientation

“There are four things that do not work with actor-network theory; the word actor, the word network, the word theory and the hyphen! Four nails in the coffin.”

(Latour, 1999a:23)

2.1 Introduction

This thesis works with, and examines the potential of Actor Network Theory (ANT) to organise some of the vast literature and other entities that contribute to understandings of young children’s complex relationship with food in early year settings. In preparation for this, the following chapter interrogates and makes use of ANT concepts as a usefully provocative way to produce the two chapters, ‘Food Network: Child Development’ and ‘Food Network: Milk’, that will constitute the literature around eating behaviours. More specifically, this chapter explores the ways each of the elements of ANT have been used and/or misused, something that led Latour (1999a: 23) to talk about ‘nails in the coffin’. Instead of seeing actors, networks and theory as three distinct entities, Latour suggests that they should be seen and used in relation to each other. For instance, for Latour (1999a) actor and network are two sides of the same coin, an idea that will be picked up in more detail below when the terminology is discussed.

As I became drawn into literature around ANT, I became more aware of the broader field of ‘relational ontology’, which will be examined in chapter 5. This ontological position shifted my perceptions about what I was reading, observing and thinking about in relation to young children and food. Relations were continuously being created between all entities influencing children’s relationships with food; relations that included not only humans but also non-humans, combining to create actions and behaviours. As a consequence, ANT helped me to re-distribute my attention from the child to all elements, and opening up new relations of intensities around food in the nursery setting. Without erasing the child and other participating humans, my intention is to explore what a network of relations around food in a nursery school might look like while working with

a range of influential elements that seem to have a part to play in children's relationship with food. ANT offers distinct affordances when examining the complexities of children's relationships with food, particularly, a new way of thinking about connectivity. According to Latour (1987), entities within a network are highly interconnected and each change/alteration simultaneously affects and modifies the whole network. This study acknowledges the entities participating in the children's food network and explores the ways they interact as well as the outcomes that emerge from such connections.

In the following pages, I offer a more detailed interrogation of ANT. Firstly, I explore its ontological and epistemological position, before focusing more on the term 'network', to examine why and how the substantive literature in the field of eating, (presented in the following two chapters), has been approached as a food network. The terms 'actor', 'actant' and 'agency', are then explored in more detail in relation to the contributions they make to subsequent chapters.

2.2 ANT's Ontology and Epistemology

Each researcher has their own commitment to what they believe knowledge is, how knowledge is constructed, how we come to know things about how the world is made up, what exists, what is real and what kind of knowledge matters. These positions influence ways of thinking and conducting research (Agger, 2007). Such paradigmatic concerns are referred to by Guba and Lincoln (1994:105) as the "basic belief system or worldview that guides the investigator". The decisions researchers make about what constitutes 'reality' and how existence is understood, determines their ontological position; while claims about what constitutes valid knowledge and how we can obtain it, determines their epistemological position (Guba and Lincoln, 1994).

Actor-network theory moves away from classical sociology, specifically from the positivist and structuralist traditions (Dudhwala, 2009). It challenges dualistic distinctions that demarcate nature/society, macro/micro, and object/human, without, rejecting them. In doing so, ANT overcomes a more traditional and hierarchical ontology in which humans are privileged above other entities (Dudhwala, 2009). The main distinction between

classical sociology and ANT is the question of what constitutes 'social'. For Classical sociologists, the social should not be purely economic, biological or psychological and it should reproduce the social order something that Latour calls 'sociology of the social' (Latour, 2005). Latour's 'social' does not exist as an objective reality but it relies on the associations between heterogeneous entities; what he calls 'sociology of associations' (Latour, 2005). According to the sociology of the social, the social dimension does not exist priori and for this reason it cannot be used as a starting point for research (Latour, 2005:5).

According to Latour (1996b), ANT adopts neither a positivist nor an interpretivist position, as both these positions, are seen to be socially constructed. Gordella and Shaikh (2006) believe that according to ANT, reality is produced with the support, and contribution of more than one actor and actant (terms will be explained below in section 2.7) and therefore beyond the mind of any human individual.

A new mode of politics is proposed by ANT scholars, which affects the way researchers see the world and how the world is being continually shaped. According to Mol's ontological politics (1999; 2002), the world is seen as multiple and performative, shaped through a number of practices. By perceiving a world developing performatively, I accept that it is shaped by everything - knowledge is collectively produced, not only by human experts as reality emerges beyond the mind of any subject (Muller, 2015). Such multiplicity intimates that ANT scholars accept that there is no one truth claim and no single knowledge that comes to dominate others. Consequently, following Callon et al. (2009:118), this approach to ontology could be called a "democratisation of democracy" as anyone and everything has its role in it.

2.3 Is ANT a paradigm?

Before I move to the next section where I examine the ideas produced by ANT in more detail, I would like to wrestle with some of the criticisms against ANT's ontological positioning. According to Van der Duim et al. (2013), ANT's scholars argue that reality comes in multiple inter-related forms. Thus, one of the aims of this research is to describe this multiplicity of reality by thinking about the range of subjects and objects that come

together and the way that happens. Cohen and Cohen (2012) highlight that ANT is not a paradigm. However, according to Van der Duim et al. (2013) through ethnographic rich data and detailed observations, ANT offers examples and stories of the way entities come together and relate to each other creating particular actions and behaviours.

Instead of a paradigm, Law (2009:142) explains that ANT offers “a sensibility to the messy practices of relationality and materiality of the world”. In other words, ANT is that medium that helps humans to understand the human and material elements that come together and the outcomes that might result from this process. It is also necessary to clarify that not one of ANT’s key commentators refers to it as a ‘theory’ as there is no intention to offer an explanation of the world or why something happens (Law, 2007). However, working with ANT, helped me as a researcher to understand the way the world is accomplished, a very descriptive and productive process (Van der Duim et al., 2013) that impacts on the organization of literature in this study, as well as the analysis of this research.

Social scientists regard ANT as a new way of approaching research and the world (Fenwick and Edwards, 2011a); as Law (2007) suggests, ANT needs to be seen as a new way of telling interesting stories while accommodating those “messy practices of relationality and materiality” (Law, 2007:2). The way ANT is understood and used in this particular research is as a generative tool to bring together information that allows the complicated relationships in the context of eating in early years settings to become more visible. It enabled me to perceive something of the mess and complexity during mealtimes as both human and non-human active entities became capable of causing a change, something that goes beyond traditional research approaches.

2.4 Actor Network Theory (ANT)

The term Actor Network Theory emerged from Science and Technology Studies, developed and used by Bruno Latour (1993; 2005), Michel Callon (1987) and John Law, (1992; 2007) among others. In order for Latour to explain the sociology of associations he draws on a quote from Margaret Thatcher and her political party’s slogan that “there

is no such thing as society” (Latour 2005: 5). According to Latour, there is no social world as understood in the more traditional sense. Rather, the world is made up of actors in alliances with other actors that are fictitious, real, objective, subjective, social or physical; ‘social’ is the “coming together of phenomenon” where networks are created (Felski, 2011:578), The existence of anything and everything ‘social’ is instantaneously and at every moment changing, while human and non-human entities attach themselves together and / or break apart (Felski, 2011). Latour claims ANT is not a ‘being’ but a ‘doing’ as it depends on the ongoing relationships and (dis)connections between actors and the shaping and reshaping of networks (Felski, 2011). For this reason, the aim in the food network presented in the next two chapters, is to trace the (dis)associations between heterogeneous entities (human and non-human), trying to follow their leads in respect of food, eating, and young children (Dudhwala, 2009). For any review of literature to be useful to this thesis, it was important to acknowledge the active involvement of, and the way relationships are built between, both human and non-human entities in the construction of the world of food (Callon and Latour, 1981). The choice of ANT in this research was made based on the idea and promise of unexpected outcomes and conclusions due to the unpredictability and changeability of connections between human and non-humans (Dankert, 2010).

The idea of the social as the ‘coming together of phenomenon’ in ANT influences my thinking about history, traditions, habits and taken for granted knowledge and practices around children and food. While ‘social’ is seen to be developed through associations, at the same time history does not only lie in the past but is continually associating with our present becoming newly revealing and life-transforming (Felski, 2011). Policies, events, political changes and measures in early years education that might have occurred in the past, have transformed the way things are perceived and encountered today; history is very much alive and present (Felski, 2011). Time flows, containing and expressing thousands of years of histories, objects, subjects, ideas, images, policies, settings and many other actors from every moment that shape and reshape the food network in and among the lives of young children.

Through ANT the active role of non-humans is foregrounded, becoming more noticeable

for those who want to consider the relations between these entities in social life and research (Fenwick and Edwards, 2011; Nimmo, 2011; Rimpiläinen, 2009). At the same time, Bennett (2010) inspiringly writes of the vitality of matter, arguing that the power of non-humans circulates around and within human bodies. She suggests that neglecting their importance in our everyday life, prevents us from realising their role in hearing, seeing, tasting, feeling, smelling, touching.

Concluding this section, as Fenwick and Edwards (2010: viii) highlight, “the safest way to talk about ANT is as an array of practices for approaching complexity in the world and its problems”. When dealing with a complex, constantly de- and re-forming issue such as young children’s relationships with food, ANT seems appropriate to give sense of, and move closer to this phenomenon (Fenwick and Edwards, 2010).

2.5 ‘Networks’ in Actor Network Theory (ANT)

Latour (2005) uses the word ‘social’ with its original meaning referring to connections and the process of assembling. Non-human entities come together with human entities as actors and/or actants to produce what Latour calls ‘networks’, contributing to Law’s list of potentially contradictory ANT ideas (Law, 1999), a point I will pick up shortly. In order to avoid any misunderstandings of the word ‘network’, in this research, I do not use the term to refer to any virtual social networks. I could argue though, that social networks could be interpreted as actors/actants-networks in some contexts, however, in this research I will not be focusing on these.

The term ‘network’ comes from Diderot who used the word “réseau” to describe matter and bodies avoiding the Cartesian divide between matter and spirit (Latour, 1997). John Law refers to ANT as ‘Material-Semiotics’ as network relations are created between matter and concepts (Rimpiläinen, 2009). Referring back to the complexities and dualities pointed out by Law (1999), there is an oxymoron between the terms actor and network because as Callon argues, ANT is “reducible neither to an actor alone nor to a network... An actor-network is simultaneously an actor whose activity is networking heterogeneous elements and a network that is able to redefine and transform what it is made of” (1987:93). Therefore, the term actor-network refers to the idea that an actor is always

influenced by a complex network of matter, materials and semiotics, consequently, an actor is at the same time a network.

Networks have been described as assemblages of heterogeneous entities including human actions, photographs, buildings, senses that link together through the process of translation (a term that will be explained more fully in section 2.6 below), creating a variety of behaviours and actions across space and time (Fenwick, 2010; Fenwick and Edwards, 2010; Nespor, 2002; Latour, 1987). The networks created by translations are reasonably stable because of the linkages among the entities participating (Fenwick, 2010). However, as translations are ongoing, entities within a network are always changing and continue to change every time a new entity enters or leaves the network (Fenwick, 2010). Thus, networks should never be seen as complete as there are always 'gaps, holes and tears' (Fenwick and Edwards, 2010:4).

In ANT, networks are characterised by 'semiotic relationality', meaning that all the elements taking part define and shape one another (Law, 2007:7). For instance, in a nursery setting, the tables, the books, the policies, the toys, the teachers, the teachers' educational background, the computers, the life experiences, the parents, the admin team, and the children are all interacting together, whilst being in a network, giving each other a particular shape or form. The heterogeneity and materiality of this network that is always being re-created, supports its semiotic relationality. Latour (1987:180) states that "[t]he word network indicates that resources are concentrated in a few places – knots and the nodes – which are connected with one another – links and the mesh: these connections transform the scattered resources into a net that may seem to extend everywhere". Latour (1997:4) highlights that through ANT "distance or proximity" do not exist as there is no distance between the actors included in a network. For Latour, no matter how far entities are located geographically, when they belong to the same network, the distance is minimised and the idea of physical distance is replaced by a metaphor of connections. In that case, those networks are more intensely connected (Latour, 1997). Think of the relationships between parents and children, or between humans and objects or places in the world, between a young child and her favourite (lost) teddy; as far as the entities allow, the connection and feelings between them are always

intense, active.

2.6 Networks and Principles of ANT

The following three principles of ANT attempt to open-up more about what networks are, what they consist of, and how the relations between their parts are established and maintained.

The first principle refers to the *consistency* of a network. Networks consist of human and non-human entities. Objects can vary, for example they can be larger, smaller, they can be animals, things or objects like toys, they can be part of technology or language (Rimpiläinen, 2015). Such networks are characterised by 'heterogeneity' and 'materiality'. For instance, in a nursery room, where food is being shared, a combination of these are already at play - teachers, children, tables, food, knives and forks, talking, smells, shouting, singing, children's paintings, toys, pencils, smell, chairs to name few.

The second principle is that of *symmetry*, describing the controversial way ANT defines actors (Van House, 2004). The principle of generalised symmetry was firstly formulated by Callon (1986) and then developed by Latour (1993). According to the principle of generalised symmetry all entities have capabilities of causing a change (Law, 1984). Because of this symmetry between entities, subjects and objects, society and nature, all need to be described in the same terms, in other words, symmetrically. Specifically, in this research the idea of symmetry helps me to think how all entities are capable of enacting change. For instance, the colour or smell of food might attract a child to eat it, but equally, a teacher's or parent's presence in the room encouraging a child to eat the food might be capable of provoking a similar action.

The third principle refers to the process when an actor joins in a network. This is called *translation*, and includes the continual transformations of the subjects and objects while trying to create or shape a network. Bennett (2010), influenced by Nietzsche and Henry David Thoreau, sees this process as the formation of a network and she particularly describes eating as a series of mutual trans-formations where heterogeneous entities exercise power on each other, offering themselves as matter to be acted on. Latour's use

of the term translation (1987) refers to the process of heterogeneous entities coming together whilst transforming one another in order to connect and form links between each other. Particularly, translations happen when one entity works on another in order to give it a role, thereby transforming it so it can become part of a network (Fenwick and Edwards, 2011:2; Callon, 1986). Once an entity is transformed, it becomes a new actor (Harman, 2007).

More specifically, for Callon (1986) the term translation was used while referring to the process of forming a network. According to his analysis, this process has four steps in order to be complete. The first one is called 'Problematization', the second phase 'Interessement', the third phase is called 'Enrolment' and the last phase 'Mobilisation' (Callon, 1986). If the translation process is successful, then the actor-network is characterised by aligned interests. Therefore, the process of translation develops paths for the entities within a network to connect between them through a number of actions.

In translation, when one entity works upon another in order to change it, or 'translate' it, it becomes part of the network where things and actions are coordinated. According to Latour (1999), when an entity becomes part of a network, it means that it has been translated and from an actant, thing acted upon, that it was initially, to become an actor, thing that initiates action (Fenwick, 2012). However, this process is not linear and entities negotiate their connections using resistance, seduction and persuasive forces (Fenwick, 2012).

Thinking about the literature around eating and young children as an actor-network, vast numbers of entities are involved, including for example theories, ideas, software, children, food, milk, culture, social, bodies, politics, economy, senses, places, nurseries, etc., all participating in the construction of the food network. These continuous translations between policies, health, young children, school, milk, and ... and ... and ... automatically affect, alter and transform one another so that both my own as well as reader's understanding of the food network (that follows in the next chapters) are always shifting. The transformations happen while each actor adds its own element to the ever-changing network.

2.7 Actors and Actants in Networks

After presenting the theoretical concepts around networks in ANT that have been generative in this thesis, including the way relationships are built and maintained, the next section will examine more closely, the way the terms 'actor' and 'actant' are used in this research.

The world is made of everything that exists (Latour, 1997). Everything for Latour is called actors and these actors are a variety of types and sizes including humans and non-humans such as tables, smell, light, stars, to name few (Harman, 2007). These actors for Latour are not isolated, but they negotiate with one another in networks (Harman, 2007). However, reading the plethora of ANT literature, I realise that the terms actors and actants are used differently by each ANT researcher/scholar. Latour (1997), one of the pioneers of ANT, argues that 'actor' is a definition of an entity that acts upon something or someone. An actor is in continuous negotiation with other actors in networks (Harman, 2007) and it should be seen as a simplified network and not as a single subject or object. For Chimirri (2012) actants are the non-human entities that carry specific meanings and create a network by relating between each other to become another agent in another network and so on. Dankert (2010) seems to share this meaning, explaining that the term actant is more appropriate in ANT as it is whatever entity accomplishes or undergoes an act, human or non-human.

Given this diversity of meanings and definitions, I realise that in order to bring some sense of (albeit temporary) stability to these terms, I need to decide which working interpretations of 'actor' and 'actant' I want to put to work in this thesis. Therefore, I have chosen to go with Law's definition of each (1986; 1987); I see 'actors' as the working entities and 'actants' the worked-upon entities. Law (1987:132) argues that actors can "exert detectable influence on others' and it could be anything/anyone 'that acts upon others'" (Law, 1987:16). Thus, a working entity is an actor that has the ability to make a change and actant is the entity that goes into the network to facilitate this activity; when actants take a performing role they are translated to actors with agency (Fenwick and Edwards, 2010). The reason for choosing this definition and not the one that separates

them as humans and non-humans in this research was made based on the principle of generalised symmetry, as both humans and non-humans are given the same ability to take actions (Law, 1992).

Consequently, humans can be sometimes actants and non-humans can be actors, and vice versa, depending on their role in the network (Fenwick and Edwards, 2011). For instance, while building up the literature around the food network, I understood specific policies about breastfeeding and school meals as well as media accounts of obesity, health agendas and food companies like Nestlé to be the actors, the working entities, that work on particular concepts such as traditional and contemporary theories of 'child development' (an actant), to continually shift what 'childhood' for example, might mean.

Another example comes from the process of eating. Food could be considered an actant (the worked on entity) in a network that includes the person's metabolism, sense of smell, cognition and moral sensibility (Bennett, 2010:51). However, from a different perspective, food could also be seen as an actor (the working entity) in another network as it acts on and causes changes in mood, behaviour, feelings, health (Bennett, 2010). Although the human figure might be regarded as an actor, it is not the only one, as food is also a player as it enters into what we become or feel, such as excited, frustrated etc. (Bennett, 2010).

A further layer to the idea of actor/actant in a network includes what Latour calls *immutable mobiles* (Fenwick and Edwards, 2011:7). Immutable mobiles are part of the process of translation and are necessary for the durability of the heterogeneous networks occurring after translations, as they are able to stay intact while moving between the other actors in the network (Tatnall and Gilding, 1999; Law, 1987; Singleton and Mike, 1993). These can be silent, ignored, or overridden entities that act from a distance through delegation and they can hold their relations in place (Fenwick and Edwards, 2010). For instance, in a nursery environment these could be current education legislation, the EYFS, and other early years policies as although all those things could be visible within a network, most of the time they are silent. They may not seem to be acting all the time, but they are entities that are strong enough to hold and affect the relations

and the actions in a place (Fenwick and Edwards, 2011).

Dankert (2010) describes immutable mobiles as something that can flow from one actor-network to another. Immutable mobiles for Dankert (2010) need to be in a form that could be understood by others. A good example is 'information' as it needs to be in a specific form so the messages flow from one actor-network to another. For instance, in a nursery environment, the computer presents the children's database that documents their absences, assessment grades, and any other personal information. This information needs to be entered into the system in a particular way by the teacher, so that it will make sense to the rest of the actors that participate in this network (Fenwick and Edwards, 2011).

2.8 (Non)Humans in ANT

There is an ongoing debate about humans' and non-humans' capabilities in ANT. This section, opens up the debate between Foucault and Latour and the way they each conceptualise the human in their work.

Foucault's archaeology of knowledge (1969) proposes that the human is produced in the relations between historical moments and the conditions and powers that are in circulation between them. The human for Foucault is linked to various historical knowledge practices (Pyyhtinen and Tamminen, 2011), more specifically, in his book 'The Order of Things', he concludes that 'man' is the one who is known through his life, his speech and his labours and he is that person who experiences life, labour, and language (Foucault, 2003).

On the other hand, Latour in his symmetrical anthropology talks about a collective life and about the human in the present tense who is produced and completed only together with the participation of non-humans (Pyyhtinen and Tamminen, 2011). Latour sees humans and non-humans as being developed together with both shaping each other. For instance, non-humans are an integral part of humans and their existence, such as food, things and natural phenomena (Latour, 2002).

In ANT the role of non-humans is vital. In Latour's (1993:13) work 'We have never been modern', by non-humans he includes "things, objects, [and] beasts". In 'Reassembling the Social', he includes "microbes, scallops, rocks, and ships" (Latour, 2005:11). Reading the literature around ANT I found that entities such as animals, natural phenomena and text are included in this category (Latour, 1993; Callon, 1986; Law, 1987; Law and Callon, 1992). Therefore, the only entities that seem to be excluded from the non-human category are humans. Pyyhtinen (2015:78) states that "We have never been only Human" as she finds it hard to understand human action without the consideration of objects and materials. Pyyhtinen (2015) argues that human bodies are a combination of relations, flows, oxygen, nerve, water, food, technology etc., and according to her sociological imagination, she gives sense to the world as a combination of both human and non-human (Pyyhtinen, 2015).

Fenwick and Edwards (2010) take this dialogue about objects or things a bit further (making no distinction between these terms). They propose that objects have the capability to change and shape human relationships, routines, meanings and even the way they see themselves; objects could change memories or make associations that humans may not even want to make (Fenwick and Edwards, 2010). An example could be the eating area children use in a nursery school. This area consists of tables, dolls, chairs, drawings, role play kitchen furniture, a fish tank, food, smells, talk, children, practitioners, parents, researchers etc. In that place though, material things are 'performative' as they act together including, excluding or regulating forms of participation. The way all these heterogeneous entities are associated creates particular meanings and it changes the human entities participating in that network.

Dankert (2010) however, makes the distinction between objects and things. Particularly, he argues that objects are mostly seen as being stable like a chair or a computer, in contrast to a thing, which is more abstract, such as a smell or atmosphere (Dankert, 2010). However, in ANT these two terms are seen the same based on generalised symmetry; as long as the connections between the entities hold, things and objects have the same essence.

2.9 Actor-Networks

Best and Walters (2013) see the term 'actor-network' to embody a tension. They argue that an actor-network includes the concept of structure in it, which holds a number of related entities together. For instance, an actor or actant is never a single entity as it is co-constituted by other actors/actants, something that makes it a network at the same time. A pen is an actant when it is used by a writer, it is also an actor in a network which includes the ink, the plastic components, the designers who made the pen, the paper where the thoughts are printed etc.

An actor-network is an actor, networking with a number of heterogeneous elements as well as a network that has the ability to change the entities that it is constituted by (Callon, 1987). In ANT, actors are at the same time actor-networks, as they are seen as a group of actors; a group of heterogeneous entities that are linked, creating relationships after overcoming any resistance (Law, 1992). In order for a new network to be created, the controlling actor, acting upon others, needs to enroll other actants in their relationships in order to make them stronger and durable (Law, 1992). I return here to the example of the eating area in a nursery. This area in the nursery school represents a continuous collaboration of tables, food, forks, knives, smell, voices, children's bodies, rules, practitioners and so on. The eating area is both a network of such (and other) entities that are connected to each other in a specific way and an actor as it could be understood to produce pedagogies, happiness, fear, forms of eating and resistance from some children.

2.10 Agency

Agency is essential part of ANT (Rimpiläinen, 2015). ANT's 'reality' is a network of heterogeneous relations and through these networks (and the interactions between the entities that participate in those networks), agency is created (Gordella, and Shaikh, 2006). Therefore, it is crucial to remember that agency is a collective and relational capacity of humans and non-humans' actions (Kontopodis, 2012; Goodman, 2001), a concept that will be put to work in the two analysis chapters.

Agency relates to one of the three principles of ANT, *generalised symmetry*, where subjects and objects are treated in similar terms in a network with no hierarchy between them (Law 2007). ANT proposes that not only human but also non-human components have the capability to cause effect by enacting relations and enrolling other actors within their network (Latour, 2005; Knappett and Malafouris, 2008; Dwiartama and Rosin, 2014). Bennett (2010) also supports this idea, arguing that affect which is the result of agency, is not only a human's capacity. Specifically, she explains firstly, that humans' agentic capacities are strengthened because they feel enacted and secondly, that non-humans' agency can produce effects, such as harmful or helpful emotions or thoughts in human and other living bodies (Bennett, 2010).

Agency needs to be visible by others in order to exist and can be visible when there is a reaction to something or resistance to somebody's will (Rammert, 2008). Agency is also seen as the ability to directly or indirectly influence or determine how something is done, sometimes being translated and distributed over heterogeneous networks (Kontopodis, 2012; Dwiartama and Rosin, 2014). Kontopodi's (2012) research examining children's agency during everyday eating practices in kindergarten in Berlin, draws on a relational understanding of agency, achieved with the use of material-semiotic analysis. Kontopodis (2012) concludes that agency is distributed over time and places and it is extended to non-human entities. More specifically, he uses 'material' to refer to the way things are set up in the nursery observed in Berlin in relation to other things, whereas 'semiotic' suggests the theories or/and values about childhood, obesity etc., and the way these two come together in order to create policies, pedagogies, behaviours, and actions (Kontopodis, 2012:7).

Agency in ANT decentres the human as it only refers to the ability to make a difference, a process that includes both humans and non-humans (Sayes, 2014). Therefore, agency is inextricably related with heterogeneity in network relations (Fenwick and Edwards, 2011). In ANT the action itself is significant and this is what needs to be traced. According to Latour (1996:239), action is always 'interaction', which means that it is shared with other entities. By assigning agency to non-human actors, ANT has met with much criticism (Kirsch and Mitchell 2004; Laurier and Philo, 1999). The non-human capability

to cause effect made ANT's ontological claim distinctive, meaning society needs to be studied symmetrically (Shiga, 2007). For instance, a spoon or food, as well as a teacher, have a capacity to cause an effect or make an impact while young children are eating. However, Sayes (2014) proposes that instead of focusing on what kind of things (e.g. food, tables, walls, spoons etc.) qualify as non-humans, focus should be placed on their role in the scenario we are trying to understand.

Dealing with the critiques about the agency of non-humans, Latour argues that in ANT, humans and non-humans have equal capacities to cause a change as they are both ontologically equivalent (Holifield, 2009). Specifically, he highlights that "... the human–non-human pair does not refer us to a distribution of the beings of the pluriverse, but to an uncertainty, to a profound doubt about the nature of action, to a whole gamut of positions regarding the trials that make it possible to define an actor", arguing that the criticism around agency is its "profound uncertainty" (Latour 2004:73; cf. Holifield, 2009).

2.11 Intentionality and Agency

I could not refer to agency without talking about intentionality. Perhaps unsurprisingly, for Dwiartama and Rosin (2014) the concept of agency in ANT goes beyond human intentionality. Following Rimpiläinen, "Agency, is not the psychological understanding of human intentionality, capacity to act and make decisions, but that of a capacity to cause an 'effect', to make a difference to a state of affairs" (2009:7). It is important here to note that agency does not stop subjects making decisions (human intentionality) and following them, but it refers to the capability to produce an 'effect' and a change to a state of affairs (Callon, 1987; Latour, 2005: 52-53). What is important in ANT is not the intentionality itself but the way intentionality is shaped between humans and non-humans relations (Dwiartama and Rosin, 2014), something that is also discussed in the field of the New Materialisms. Non-living entities are active and vibrant agents who exercise power and for this reason, Bennett defines agency as "... a force distributed across multiple, overlapping bodies, disseminated in degrees— rather than the capacity of a unitary subject of consciousness" (2007:134).

Fenwick and Edwards (2012) argue that in ANT human intention and action are decentred and what mainly matters is to understand the way entities come together and manage to stay assembled in order to produce effects. Particularly, according to Latour, “action is not done under the full control of consciousness; action should rather be felt as a node, a knot and a conglomerate of many surprising sets of agencies that have to be slowly disentangled” (2005:44). For instance, the choice of particular pedagogical methods by the teacher or the choice of an apple rather than a pear by a child could be done without any consciousness. Consequently, the agency produced in one entity results from different forces such as actions, capacities, desires and the forces exercised by the surrounded environment where the actor is located; for example, the educational system influences the teacher’s actions, or what is available in the house could influence a child’s choice of what she/he could eat (Fenwick and Edwards, 2011). Thus, an entity’s action is the result of the translations happened between all the discussions, materials, emotions, desires (Fenwick and Edwards, 2011).

2.12 Distributive agency

The actor-network as described above and seen by ANT, erases the division between subject and object, enabled by the distributed agency between all entities participating in it (Inglod, 2013; 2011). Jane Bennett, in her book *Vibrant Matter*, introduces the concept of distributive agency to explain that not a single entity is responsible or capable enough to cause an effect. This innovative concept appears to be in contrast to more traditional position where agency is linked to an intention (Bennett, 2010:31). Distributive agency does not reject intentionality but it does see it as a less definitive outcome. In distributive agency, emphasis is placed on the type of relationships that are created between the entities, as power is responsible for any difference or change that might happen (Bennett, 2010). For Latour, agency becomes a social phenomenon where all human bodies and materials are included in the construction of an assemblage (Bennett, 2010).

Rammert (2008) argues that the first step to understanding and defining distributed agency is to show that human action is distributed. We also need to accept that distributive agency is made of heterogeneous units of agency. Rammert (2008:13)

through his example of a trip to Tenerife, explains the actions between the pilot and the co-pilot or between the pilot and the flight-controller. He finally concludes that neither the single or the collective human actor, nor the technical artefact alone or the combined technical system could be an adequate unit of action (Rammert, 2008:16). Rather it is the combination of both human and non-human entities as their collective agency, is composed by activities of heterogeneous entities (Rammert, 2008).

2.13 Summary

To sum up, this chapter has presented some of the characteristic features of ANT that will be drawn on throughout the following chapters. The inseparability of humans and non-humans and the key idea of generalised symmetry have been examined. Mention has also made of the debate around material/object-agency. All these issues have been outlined in order to develop an ANT-inspired literature network around children's relationship with food in a nursery. The concept of distributing agency will be picked up again later in this thesis, during the analysis chapters (chapters 7 and 8).

Choosing to apply ANT in the following food network (literature chapters 3 and 4), I intend to focus on the relationships between human and non-human entities something that seems to have great potential in the educational sector where nurseries and classrooms are full of and afford great significance to, non-human entities and objects. However, at the same time I recognise that by relying on a range of written sources produced by humans, I am challenged to ensure I reflect on the idea of 'symmetry' in this network of literature. For example, how can I ensure the texts and their substantive contents as non-human entities are valued in the same way as the humans who constructed them? I need to be mindful of this balance as I choose and bring political, social, economic, and institutional actors/actants into play. Committed to the principle of generalised symmetry, I have tried to read the available sources and then use them in a way to inform this research, redressing tendencies to rely on humans. However, trying to become more aware of and trace the agency of non-humans and material entities was particularly tricky, especially as I was so new to the working of ANT. In the next chapter, I will start by explaining the way ANT contributes more specifically to the organisation of the food network. Then the human and non-human entities producing the food network

will be discussed in an attempt to explore the affective engagements young children have with food as they are presented in previous literature, statistics, history, education, and health.

Chapter 3

Food network: 'Child development'

"[t]he word network indicates that resources are concentrated in a few places – knots and the nodes – which are connected with one another – links and the mesh: these connections transform the scattered resources into a net that may seem to extend everywhere"

(Latour, 1987:180)

"Using a slogan from ANT, you have 'to follow the actors themselves', that is try to catch up with their often wild innovations in order to learn from them what the collective existence has become in their hands, which methods they have elaborated to make it fit together, which accounts best define the new associations that they have been forced to establish."

(Latour, 2005:12)

3.1 Introduction

A number of factors influence our everyday food practices, such as the people who eat with us, their age, class, culture, religion, gender and ethnicity, along with aspects of place and time when eating happens (Wills et al., 2011). This study recognises that not only humans participate in this process but also non-humans. The exclusion of non-living entities, such as taste, discourse, smell, furniture, history, space, etc. in favour of human entities would leave this research impoverished. Food, objects, experiences, cultural practices and policies intra-act with human-centred psychological perspectives to enable the consideration of how material, discursive, natural and cultural factors work together in order to produce knowledge about young children relations with food in a nursery (Barad, 2007).

The following two chapters constitute the literature review that I refer to here as a 'food network'. They aim to develop a theoretical and critical 'networked' understanding of how early years teachers and practitioners have come to perceive, and respond to, young children's relationships with food and their nutritional health in nursery settings. Among a multitude of possibilities and potentialities, I have chosen to produce and focus on two actor-networks that build an accumulative story of this complex backdrop to the study: 'Food Network: Child Development' (chapter 3) and 'Food Network: Milk' (chapter 4).

Each chapter incorporates entities that contribute historical, sociological, philosophical, political, economic and institutional perspectives in broad and complex networks of literature about children's relationships with food. Across the two chapters, focus is placed on Anglo-US, European and particularly UK sources to be able to analyse the structure of the dominant cultural context of the study and understand its implications and impact on young children's eating behaviours. The purpose of the food network is to articulate some of the complex ways that human and non-human entities including theories, research, statistics, concepts and debates from academic disciplines (e.g. social policy, psychology and education), government departments, the media and public forums continue to influence nursery pedagogies, practices and children's eating behaviours. The choice of the literature that makes up the food network could potentially dominate the thesis, as the possible entities influencing different ways nursery eating practices and pedagogies are constituted today are endless and always changing. However, the food network I have drawn together, indicates only a number of the potential "... knots and the nodes – which are connected with one another" (Latour, 1987: 180).

I have brought together scattered resources that connect to 'child development' and the idea of 'milk', thereby concentrating ideas and threading these chapters together with the analysis chapters in this vast potential field of literature. Specifically, the choice of 'Child development' as one of the two actor-networks explored in the food network, was made based on how critical a 'good start' in life is considered to be for young children's 'healthy' growth and development, something that is reflected in policy and the ways nurseries operate. The process of early development is often a preoccupation for some parents, early years practitioners and policy makers. Where poverty and the prospect of a 'disadvantage background' interfere with 'healthy' child development, the Government and other agencies assume a crucial role in supporting struggling families in order to avoid critical health issues, reduced life opportunities or/and stigma. Simultaneously, food is considered an essential actor in a child's development. The choice of 'Milk' as the second actor network was made based on it symbolically being the first food children consume, whilst recognising that milk's threads are knotted with political and socio-cultural issues; it not only nourishes babies but if breastfed, is also believed to bring them

closer (physically and emotionally) to their main carer. Looking at food as a highly economic and social actor through this food network, I aim to explore the way early years eating policies and practices are affected. In addition, both 'child development' as well as 'milk' are critical to the analysis chapters, something that will become clearer in chapters 7 and 8.

This chapter begins with a brief exploration of the approach taken that helped me get a sense of the extent and complexity of this potential food network before moving into the two broad actor networks I have wrestled with in order to work with the data in this study.

3.2 The role of Actor Network Theory in this literature

The literature in this food network maps the histories and perceptions of, as well as interventions in, children's eating, diet and nutrition in a way that attempts to capture how approaches to this have formed and re-formed over time from the mid-eighteenth century to the present, with each change impacting on the way eating practices in nurseries work today. The challenge of building this story around children's eating has been the recognition that networks are never fixed or the same. As discussed in chapter 2, they are in constant movement, while their entities keep building new relationships or sometimes leave the network during the process of translation (Latour, 1987).

A 'food network' has been mapped to enact something of the complexities of actors at work in ANT as I attempt to craft a story about children's relationship with food. This necessitates a critical engagement with influential factors in children's eating behaviours, which vary and are continually moving around depending on the cultural context, the time and the socioeconomic elements, to name a few. The process of writing through a network involved the production of many drafts as I structured and re-structured the whole chapter, altering my mapping each time new elements entered into, and others left, the network and as the data transformed the shape of the food network and my writing. At the point of reading and examining this thesis, I am aware that many more things could have been included in this chapter, but I had to set some parameters, partly

delineated by my own life and cultural experiences but also to limit the endless possibilities of potential knots and nodes, actors and actor-networks that could have been included. As a Greek-Cypriot woman coming from a food oriented culture and lover of good food, I could not ignore actors such as health, culture, food consumption and food waste, as well as milk, elements that will be picked up in this and the following chapters. The shape and relevance of the two literature chapters re-presenting aspects of the potential food network will become clearer as the thesis unfolds into the data analysis.

During my immersion in this emerging food network, I have experienced the capacity non-human entities have, often causing changes/actions/behaviours. For instance, the aroma, scent or fragrance of food that drifted from the nursery kitchen; and memories from my own childhood in Cyprus, when my grandmother encouraged me to eat and was only pleased when I cleaned my plate. On each occasion, human and non-human elements are able of exercising force on, connecting to, developing and changing, each other as well as the whole network they are in (Fenwick and Edwards, 2011). As they assemble together with other elements, they create 'networks' which are maintained over time and space, becoming more or less durable (Wildman, 2006). The shape of this literature network slowly, and at times more rapidly, transformed itself over the three years of this study. A number of expected and unexpected non-human entities produced innumerable changes, sometimes leaving me unprepared for the many different ways it was influenced. For example, I was surprised by how much the historical as well as more contemporary policy contexts and political impetus around food have always, and continue to affect the education system and nursery practices.

3.3 Food Network

Food and eating practices, whether in a family environment or in an institutional setting, occur as part of a network of relationships and on that basis, ANT has heavily influenced the way I have organised this literature around young children's relationships with food. For millions of people, food is available to satiate their biological need of hunger and the process of eating is part of a routinised practice of consumption that often seems unremarkable. Food is a product, inseparable from the workings, organisation and

functioning of modern society. It is a product consumed by human and non-human animals to satisfy hunger, sometimes to offer pleasure and for others, re-presenting anxieties and frustrations. Most food today in the UK undergoes varying degrees of technological intervention in order to be longer-lasting or to have richer colour, more volume and seductive smell. Even foods deemed to be 'natural' products, such as fruits, vegetables, milk, meat, eggs and water etc., are subject to their own technological interventions as they move from animal and field to shop counter. The use of ANT to analyse the more-than-remarkable relationships we all have with food allows me to consider the range of interrelations between humans and non-humans and the messiness of the networks created.

The following section offers a graphic representation of what I have called the 'food network' informing this study. This image maps some of the networks, knots, threads, actors and actants (including immutable mobiles as discussed in chapter 2) that I consider at play at this time in this network of literature. It is impossible to include all the actors and actants (which are in themselves simultaneously networks) that might be in circulation, especially across time and spaces in the 'food network'. Every time I come back to examine this map after doing more reading, or more observations, I identify a number of translations as new elements enter the network, while others leave or change their role within it, transforming it accordingly each time. For the purposes of the literature chapter, I have decided to focus on particular actor-networks, or knots as they seem persistently influential to children's eating behaviour over time, and strongly seem to affect the wider 'food network'. The figure below, re-presents these actor-networks in an attempt to show the complexity between the relations within the 'food network'.

The graphic food network below articulates a series of coloured circles or knots of different sizes, each joined to others by various and sometimes multiple trajectories. The larger knots represent subjects such as constructions of child development; the posthuman child; the eating sensorium etc. and the size of the knot denotes how much literature was devoted to these areas in the overall discussions about food and eating in the early years. The smaller circles, such as food waste, obesity, cultural influences, material world, breastfeeding, class value and capitalism, school milk, school meals etc.

denote those more concentrated resources or entities that are relevant to the larger knots that they connect to, as they are influential to young children's eating behaviours. They also show how potentially scattered, vast and complex the food network/actor-networks are. However, I have been only able to focus on some of those that are the most pertinent to the thesis (particularly to the analysis). The anonymous knots and threads fading out as they reach the edge of the page represent a sense of uncertainty (faded circles) and infinity of these networks. Within the complexity of this graphic image, the possibilities for translation within, and the parameters of, the ever-changing food network, are infinite. For purposes of the thesis, I have had to settle with a more in-depth examination of just a few.

The following section begins to build the food network, but I would like to take a moment to describe how the term actor-network is being used across these chapters. The term 'actor-network' includes entities such as EYFS, free school meals, food companies, whereby each is an actor and a network at the same time. I understand actor-networks as influential to young children's eating behaviours and would argue that their influence causes a change to those behaviours and actions. These actor-networks come together to form temporary but influential relations (bonds), broader categories and around which this literature network is organised, for example, 'constructions of child development' and 'education eating policies, pedagogies and practices'. A number of these broader categories congeal to form the two literature chapters, 'Child Development' (represented mostly by the yellow, red and blue circles in the graphic network above) and 'Milk' (represented predominantly by the cerise, mustard and green circles) that inter-act with an overall (but always changing) 'food network'. This first chapter, 'Child Development' network includes the following broad categories: Constructions of child development; Socio-cultural entities influencing eating behaviours; and The posthuman child. The following chapter, 'Milk' network includes the following categories: Pre- and post-natal child development; Education: eating policies, pedagogies and practices; and the Eating sensorium.

3.4 Child development

In this section, constructions of child development, that include socio-cultural influences on eating behaviours and notions of the posthuman child will be reviewed in an attempt to understand more about the broader 'food network' informing the study. The important and affective role of different entities connecting to child development and in turn, affecting early years eating practices will be discussed in the remainder of this chapter. The network of child development has a tentacle-like relationship with both analysis chapters, but is particularly relevant to one of the eating events documented in the nursery setting, which will be examined in chapter 7. Over time and as different constructions of childhood come to the fore and others fall into the background (whilst often remain lively), the interactive relationships between what is perceived as natural, political, social, historical, cultural and material build on the accumulative understandings around young children's relationships with food and the way these are

translated into early years interventions. Discourses around young children and childhood with an emphasis on being healthy, seem to have changed over time, perhaps reflecting children's living conditions and education (an idea pursued later in this chapter) and the ways early years practitioners and teachers respond to children's needs (analysed in chapters 7 and 8). More recently in education, children are seen as capable of contributing into their own development, recognising the humanist notion of agency in young children's development (Woodhead, 2006).

The Child Development network that connects actor-networks such as the 'constructions of child development', 'socio-cultural influences on eating behaviours', and the 'posthuman child', along with other things, such as television advertising, politics, money, capitalism etc., produces agentic capacities. Taken from the wider food network above, the graphic image below focuses more specifically on the Child Development network, with its agentic capacities represented by the resonating, vibrating threads connecting all entities. Some entities work on other entities in order to change and translate them and other entities are acted on in order to be translated. These roles shift within the food network, at the same time changing the outcome of the network.

sense of becoming. By exploring the shifting constructions of child development, I aim to contribute to the 'networked' understandings of how early years teachers, practitioners and policy makers have come to identify, and respond to, young children's relationship with food and their nutritional health in nursery settings.

The child development is a critical actor in the broader food network. These changing perceptions force re-considerations of how children have been positioned historically and more recently as innocent, dependent, or autonomous and rational, to becoming agential and more intra-active with their environments. This section examines how anthropocentric understandings of childhood, have dominated theorisations and practices in health and education, such as the ways we observe and think about the child from humanist perspectives (James and Prout, 1997a), to more new materialist and posthuman (including ANT) perspectives that open out the more-than-human worlds when discussing childhood. More specifically, in this section, I summarise movements made in sociology, health and education, which continue to shape the way children and their experiences in the nursery are understood. These disciplinary and philosophical movements have a particular relevance for policies and practices around young children and food in nurseries today, particularly in relation to ideas such as agency, rights, voice and perceptions of a competent young child. As 'immutable mobiles', they are influential to children's development. They are each necessary for the durability of the child development network, as each somehow stays intact whilst moving over time (Law, 1987; Fenwick and Edwards, 2010), leaving threads and traces in the minds and bodies of policy-makers, parents and practitioners' through training, perceptions and expectations.

The twentieth century has been characterised as the 'century of the child' - the time when children became recognised in policies, welfare, medical and educational institutions in the UK (Prout and James, 1997a: 1), in comparison to the previous century when children were largely invisible in government statistics and other social accounts (Qvortrup, 1997; Rhodes, 2000). At the beginning of the 20th century, for example, the Ministry of Health was established and in 1948 the NHS introduced the right to primary care for everyone, which made significant differences to children's lives in relation to

disease and living conditions (McAlpine, 2013). The influence of local government on children's health and social welfare by the 1930s is reflected in the current NHS public health practices, which aim to improve the quality of children's lives (Gorsky et al., 2014).

Other significant shifts emerging later in the 20th century included a growing awareness of, and greater sensitivity to, diverse experiences in childhood being determined and affected by a child's race, class, gender, dis/ability and ethnicity (Prout and James, 1997b). This shift was accompanied by the re-conceptualisation of children from passive subjects to active agents who co-construct their social lives as well as the lives of the people around them (Prout and James, 1997b). However, despite these ideological and theoretical shifts, to a great extent, the daily realities of children's lives still seem heavily determined and constrained by adults.

In contemporary Britain, debates involving politicians and the public around child development continue to emerge, precipitated by the increasing numbers of mental health issues experienced by young children (Burman, 2008). In an article published in *The Daily Telegraph* in 2006 (Fenton, 2006), 110 teachers, psychologists, and other experts raise concerns about 'toxic childhoods' and the emerging relationship between childhood mental health and the impact of issues such as junk food and digital technologies on behaviour and developmental conditions:

Since children's brains are still developing, they cannot adjust. . . to the effects of ever more rapid technological and cultural change... They still need what developing human beings have always needed, including real food (as opposed to processed "junk"), real play (as opposed to sedentary, screen-based entertainment), first-hand experience of the world they live in and regular interaction with the real-life significant adults in their lives...They also need time. In a fast-moving, hyper-competitive culture... (Fenton, 2006: online).

Childhood has not always been seen as 'toxic' (Palmary, 2006) or risky. For example, during the Romantic and Evangelical Revival era at the end of the eighteenth century, childhood was understood as a period of innocence that should be kept alive during adulthood so it could provide nourishment for a person's whole life (Hendrick, 1997). A more recent perception comes from Unicef (2005), highlighting that childhood is not just

the time between a child's birth and adulthood but that adults must pay attention to the conditions of life and the quality of those years. Unicef (2005) describes childhood as the period of time where children need to be in school, be safe, nourished and play so they can grow up stronger and confident having the love and encouragement of their family and their social environment. At this age, children should live without having any concerns, fears and anxieties but they should feel protected. This definition presents a utopian picture of childhood, a romanticised thread that connects across the child development network, vibrating the harsh and complex realities some children experience; suggesting that the experiences of childhood are something that endure into adulthood and to some extent, shape aspects of later life.

The idea of thinking about children as 'becoming-adults' turns me to Piaget's influential stages of development that remain firmly entangled with the child development network. Although Piaget was not an educationalist, his influence on teaching practices remains significant (Murriss, 2016). Cognitive constructivism proposes that children construct their learning by building on previous experiences (Doherty and Hughes, 2014), moving from the simple to the complex, from the specific to the generic and from the empirical to the rational (Egan and Ling, 2009:49). Piaget's cognitive model of developmentalism through biological maturation and interaction with the environment has received much criticism, particularly in relation to developmental 'milestones' needing to be accomplished before children are 'ready' for the next stage, yet the powerful agentic capacity of this sense of incremental progress remains threaded into early years policy and practices. Terms such as 'ready', including 'school readiness' are clearly problematic when working with young children with different behaviours, abilities, struggles, life experiences, talents and gifts.

Constructions of childhood are threaded, mapped, connected and entangled into narratives of child development in many different ways, depending on the theoretical, methodological and paradigmatic era and society from which it emerges (Hendrick, 1997). For example, ideas emerging from social constructionism, suggest that childhood might only be understood through "culturally produced discourses" (Taylor, 2013a). Anderson (1980:60) argues that not only childhood but also parenthood is socially

constructed. Mills (2000:9) states, “childhoods are social constructions, cultural components inextricably linked to variables of race, class, culture, gender and time”. Similarly, Burman (2008) argues that both children and childhood are constructed and for this reason, she suggests that this phase of life should be studied within its context (interpersonal, political, cultural, linguistic, social, historical) as these conditions produce and shape childhood. At the same time the term ‘socially constructed’ is used by Dahlberg et al. (2013) to describe any pedagogical activity arguing that this is socially constructed by human actors where the child, the teachers, the practitioners, the parents etc. are understood through language.

3.4.2 Socio-cultural influences on eating behaviours

The following section discusses how threads of socio-cultural influences of childhood affect child development and eating behaviours. A ‘healthy diet’ has multiple meanings to different industries, people and other actants in this network. As briefly noted earlier, child development and constructions of childhood are entangled with biological, social, cultural and political meanings. In an attempt to further augment the food network to which young children contribute, this section explores the socio-cultural context of nursery policies and the ways this shapes eating practices.

In the broader food network, it is important to focus on the significance of culture in relation to nursery food habits, taking into consideration different actors/actants such as assumptions, ideas, customs, and social behaviours, which influence cultural patterns of behaviours. Mealtimes vary across social groups as every culture has its own customs and rules around the table. Mealtimes can vary based on the setting, the number of children who are participating, the length of the meal, and their sequence (Ochs and Shohet, 2006). Culture is a salient actor that consciously or unconsciously affects eating habits and behaviours. According to Hadjiyianni and Helle (2008), food is a stabilising cultural element especially when cultures and traditions are mixed. Its symbolic meaning is believed to contribute to the construction of cultural identities. Living in a multicultural society in the UK, childhood differs from house to house and changes over time as children develop, being influenced by different notions of cultural ‘norms’ (silent and/or

not). With some children living and experiencing such variety of cultures and foods, it is expected that they develop eating and feeding habits that open up opportunities for new learning about the foods available to them (Savage et al., 2007).

As DiPietro et al. (1987) and Sandler et al. (1970) argue, young children's behaviour is affected by environmental events and each child's behaviour could only occur within the social environment where it is produced. According to Blundell and Halford (1994), one of the actors influencing children's eating behaviours is the socio-cultural practices of institutions such as the family, the nursery and later the school. In addition, Regenstein et al. (2003) propose that socioeconomic background, ethnicity and religion are additional actors influencing food preferences, habits and eating practices in households. Outside the home, school meal policies might be influential in children's attitudes and behaviours towards nutrition (Cole et al., 1993; Robinson, 2006; Neumark-Sztainer et al., 2010). A personal preference for (dis)liking certain foods and/or the routines and rituals associated with mealtimes can also participate in children's food network creating a number of eating behaviours during mealtimes. According to Cooke (2007) liking is one of the most influential actors which affects food choosing as food dislikes can lead to food rejection.

Cooke (2007) suggests that children mainly eat what they like and children like what they eat. The earlier a child comes across a variety of high nutritional value foods, the higher the chances are of them liking it and including such variety in their daily diet (Childs, 2001). However, Childs (2001) points out that this introduction to a variety of healthy food can only happen with the help of the adults who are around the child. There are a number of researchers who propose that children's food preferences are associated with the extent to which the child is familiar with the food introduced to them (Birch et al., 1987; Childs, 2001; Cooke, 2007; Dovey et al., 2008).

During mealtimes, it is thought that messages about social etiquette, manners and '(un)acceptable' eating behaviours are passed to young children. Ochs and Shohet (2006), argue that children could also build their communication skills and identify their social role and position in the family during mealtimes. For example, in many

communities and cultures, such as in South Korea, children are often expected to eat after adults or on a different table to adults and remain very quiet (Ochs and Shohet, 2006). Another example comes from Afghanistan, where males usually eat separately and typically prior to females and children (Ochs and Shohet, 2006). In different places and among varying cultures, it could be assumed that children's social identities will develop differently.

In 2017, Britain is a diverse country composed of a number of different ethnicities, religions and cultures, which presents an interesting challenge to nurseries, with children bringing a range of differentiated cultural eating habits and traditions to the table. Within such a diverse context, the current DfE claim that messages of equality, respect for diversity and democracy are important in their policy-making. In May 2006, the Department for Education and Skills (DfES) established the Diversity and Citizenship Curriculum Review Group, to review the extent that diversity is promoted in the UK curriculum and the way the 'Modern British Cultural and Social History' could be incorporated (Maylor et al., 2007). Their vision was to help all schools within five years to "be actively engaged in nurturing in pupils, the skills to participate in an active and inclusive democracy, appreciating and understanding difference" (Ajegbo et al., 2006: iii). Making the link between this review group and the 'two-year-old offer' (DfE, 2014) introduced to support economically vulnerable families, on the surface, the current Government's commitment to providing opportunities for children whose families might struggle to afford a glass of milk for breakfast, ensures all children can participate 'equally' in such 'healthy eating' habits. However, it also raises particular questions about the traces of biological maturation and the importance of early nursery interventions to ensure (school) 'readiness' that are still vibrating along the threads connected to child development narratives.

Adding to the complexity of the cultural messages communicated during nursery mealtimes is immigration, where children find themselves living (and eating) in a different country from their country of origin (Blundell & Halford, 1994; Musher-Eizenman et al., 2009; Moore, 2011). It is important to acknowledge the way eating behaviours are 'normatively' understood in a complex and culturally diverse UK society

in the 21st century. The multidimensional character of the UK adds a complexity to the way eating behaviours are developed and has been an issue of great interest to academic research in the last decade (Moore, 2011; Hadjiyianni and Helle, 2008; Blundell and Halford, 1994).

A thread from my own personal experiences is drawn into this discussion. I value the cultural differences between people and the way these influence daily lives especially concerning mealtimes. Coming from a very food oriented culture, different actors and actants resonate as I engage with the food network. As I think of food, it is already much more than nutrition; it is also about pleasure. Irresistible memories entangle themselves in this food network; actors such as flavours, smells, vegetables growing in my backyard in Cyprus, cooking with my mother, colours, music, laughs, dancing, talking, large gatherings with friends, sun and . . . and . . . and . . . are foregrounded. Memories, smells and vivid images from the many Greek-Cypriot celebrations I recall are saturated in events around food. On each occasion, the amount of food prepared is almost double the amount needed in case more people come or guests have a variety of food preferences. I can almost still taste my recollections, remembering the feelings and atmosphere of Greek-Cypriot people preparing food together; preparing the dishes while listening to music and dancing in a relaxed environment. There is no specific starting time for eating, serving goes on throughout the day; the idea of a three-course meal in Greek-Cypriot culture is unrealistic.

Mealtimes are an event where people from different generations, gender, culture, socioeconomic background etc. come together and learn, reinforce, or transform each other's ways of acting, thinking, and feeling about food and the world while eating, sometimes using practices such as prohibiting, praising, resisting, ignoring (Ochs and Shohet, 2006). All these practices can influence young children's daily mealtime's interactions (Ochs and Shohet, 2006) and nursery settings work hard to maintain a heterogeneous eating culture, whilst being driven by vibrant actors and immutable mobiles such as policies, pedagogies and practices emerging from historical and political networks of child development. Many examples came from the nursery I visited, some of which will be discussed in more detail in the analysis chapters. A quick example relates

to the nursery's culture of communication and socialization. In the nursery, one of the usual habits during eating events was to include both sign and verbal language, to make communication between all the children possible, without creating any feelings of discomfort for children who could not communicate with English or verbal language.

When examining the relationship between children and food, it seems crucial to resist studying the child or the food independently, but rather the intra-active entanglements of these, along with the context they are located within. To understand eating behaviours, it seems necessary to consider the 'networked cultural influences' impacting on the actors/actants.

3.4.3 Children's eating: the culture of advertising

Another thread that pulls at the knots and nodes across the child development network is the intervention of actors, such as the media, entering into children's lives bringing commercial, economic and political interests to bear on constructions of child development, influencing and transforming once more, adults and children's eating habits. The factors that influence peer cultures and children's preferences (particularly, eating preferences), are numerous and most of these affect young children outside of their conscious awareness (Fenwick and Edwards, 2011).

In marketing, television advertising is the primary means by which food companies try to sell their products and gain customers. Reported in a number of articles (Pettigrew et al., 2013; Livingstone, 2005; Folta et al., 2006; Buijzen et al., 2008; Harris et al., 2009), food promotion especially via television advertisements, affects children's diet, which according to these articles, is one of the main actors leading to high levels of obesity. Many children from a young age are exposed to television food advertising across Europe, in the United States, United Kingdom and in Australia (European Heart Network, 2005; Hastings et al., 2003). According to Valkenburg and Buijzen (2005), children begin to recognise brand logos from the age of 2 and between 3-4 years old, children can remember brand names.

Following Ofcom (2004) in the UK every year total advertisement expenditure by the food industry, including drinks and restaurants, is £743 million, and from that £522 million is spent on television advertising and £32 million of which occupies children's airtime. Such food advertising on television engages actors such as breakfast cereals, savoury and sweet snacks, soft drinks and fast-food restaurants, foods with high proportions of fat and sugar to promote their sales (Livingstone, 2005). The aforementioned entities have significant agential capacity as powerful actors, transforming children's thinking and eating behaviours. Many actors and actants, including advertisements participate in the increasing prevalence of eating disorder narratives in childhood (Halford et al., 2004; Harrison and Cantor, 1997). For example, limited active lifestyles (which could entangle with networks including media narratives around play safety, risk, child protection and safeguarding) and parenting styles are threads that contort perceptions children develop about body image.

The power of media and especially of advertisements as agential actors is tremendous on children's eating behaviours and habits. As already established, in that network, economics and politics work as other powerful actors serving a commercial imperative while being in a continuous process of strengthening each company's role in the food network. It is here where more ethical and conscious food companies can enter and transform the existing network and re-translate or reconfigure media messages. Companies such as 'Innocent'³, although expensive and still having profitable motivations, might be understood as meddling in and menacing the 'unhealthy' actors at work in advertisements, especially during the hours where most children might be watching TV (Harris et al., 2009; Livingstone, 2005).

Set among schools' and nurseries' agendas to grant agency to children's developing sense of the healthy eating network, helping them to develop critical thinking in order to be able to discern what is good and less good for their health, the strong networked threads of media advertising campaigns ensnare the narratives. Fletcher et al.'s (2014) studies

³ 'Innocent' started in 1999 after selling smoothies at a music festival. The purpose of the company is to make natural, delicious and healthy drinks that help people live well and die old. More information can be found at: <http://www.innocentdrinks.co.uk/us/our-story>

suggest that 'junk' food and energy drinks are still selling in English secondary schools. Fletcher et al. (2014) conclude that schools seem to ignore warnings regarding the poor nutritional diet young people adopt and any health dangers this diet could cause them in the future. Following these studies, schools and educators seem to occupy an interesting position as actors among media's commercial and moneymaking messages.

3.4.4. Class: food spending and waste in UK households

Food spending and waste is both a political and economic actor, at work on/in the 'child development' network. In UK schools in the 21st century, young children's awareness about 'healthy' diet, fitness and other lifestyle conditions is growing. In some countries (including the UK), food consumption in houses and restaurants, is higher than ever before, whereas in other countries (including the UK), people are undernourished because of the limited amount of food made available, or distributed to them (Defra, 2014). Although under-nourishment in the world has fallen 37% since 1990-92, 12% of the world's population (almost 900 million people) remain without adequate daily food intake (Global monitoring report, 2013). In the following section, the relevance of food spending and food waste in the UK will be explored and discussed in relation to how it re-shapes the food network, as it appears influential to healthy eating but also to young children's development and their relationships with food.

The neo-liberalisation of the family continues to play a part in the connections between food spending and waste and the way this might influence parents' and the state's interventions in the lives of young children (Mant, 2017). The requirement for 'good' parents (and early years practitioners) to know about and practice 'healthy eating' but also to build young children's positive relationships with food is entangled with available food choices and eating habits. According to statistics provided by the Department for Environment, Food and Rural Affairs (Defra, 2014) there was a rise of 4.0% in 2013 to £196 billion spent in the UK on food, drink and catering. As food spending has increased, food waste has increased as well, especially in the UK, which is reported to be the country with the highest percentage of food waste across the other European countries (Sedghi,

2015). The reason given for this waste was mainly the fact that too much food was cooked or served that was not needed.

Although the statistics show higher levels of spending and food-associated waste, food prices have also risen, mainly affecting lower income families (Defra, 2014). At the same time, it is reported that in 2013 in comparison to 2007, families with lower income reported to buy 33% less meat, 19% less fish and 16% less fruit (Defra, 2014). In the UK in 2015, where food waste is higher than ever, there is also another perspective to consider. Figures from the Trussell Trust⁴, a charity underpinned by Christian principles aiming to end hunger and poverty in the UK, show that between 2013-14 food-banks fed 913,138 people nationwide and of those, 330,205 were children with numbers increasing (Lambie-Mumford, 2011). Trussell Trust chooses to put 'hunger' before 'poverty' in their campaign, providing food aid through more than 400 food banks in the UK (Lambie-Mumford, 2013). These statistics suggest that there are so many families across the UK who struggle to feed themselves because of issues such as debt, family breakdown, illness, benefit delay, domestic violence, and extra costs such as heating (Lambie-Mumford, 2011; 2013). Although the role of the food banks is crucial and their offer is vital, the state should consider why the need for food banks is so necessary and why the number of people relying on them keeps growing.

Considering 'food spending and waste' as one of the many actor-networks entangled in the wider food network, I am keen to understand more about how statistics, surveys and other evidence drawn from 'science-related' studies might be working on the food network and the shifting understandings of how the developing child establishes relationships with food. As I started out exploring the literature associated with food networks, I understood food as a substance that keeps people alive; as an innocent 'good' which offers pleasure and life to people. As 'class: food spending and food waste in UK households' moved into the food network, the image in my mind was transformed as politics, money, capitalism, hunger and poverty, inequalities etc. re-formed the network

⁴ Food banks, such as The Trussell Trust, give food and support to people across the UK. There are at least 2,000 food banks in the United Kingdom and the demand is rapidly growing. In 2016/17, they gave 1,182,954 three-day emergency food supplies to people (The Trussell Trust, 2017).

something that seems to influence children's development as it is directly influenced by people's customs, thinking and acting. Rather than something 'innocent', food has become a highly political actor transforming peoples' habits and behaviours in a complex and unequal capitalist society. Therefore, politics, state, money, poverty, smells, waste, hunger are all tangled with each other, affecting the wider food network by always shifting ideas, perceptions, beliefs, and actions. The idea and the materiality of food are affected by politics and economics, with their agentic capacities generating complex tensions in contemporary UK society. With the politics and economics of food interacting with 'healthy eating' and child development network which then interact with the broader food network, my ideas and perceptions about food and eating have been affected. In such a politically and economically-oriented food network, the right to food, the right to health, basic human rights, obligations to respect and to protect are all inter-related with money and the Governments' will/interests/benefits/aid. It also appears that poverty and insecurity are effects of the food network, something that I found difficult to accept. More specifically, food poverty is seen as the result of the way the political and economic system functions. Some of the uncomfortable effects of food poverty are the lack of affordability and accessibility to food, which can bring insecurity to the family and in some circumstances, social exclusion. Unfortunately, material poverty in relation to food poverty can impact on the accessibly people have to local, public and private services, something that could lead to further social exclusion. Emerging from this network of relations between food poverty and limited accessibility to social, economic and political activity, people who are socially excluded, do not have equal chances accessing the same educational institutions, services and social circles, something that could be taken for granted by other people. Therefore, exploring key knots and threads influencing young children's relationships with food, social exclusion in relation to poverty can negatively impact on already economically disadvantaged families, affecting not only their nutritional diets, something that could cause a range of eating disorders, poorer nutrition and malnourishment, but it could also produce family breakdowns, educational failure and serious personal debt.

3.5 Post-human perspectives in childhood

Although cultural perceptions of, and social responses to childhood and eating habits are significant threads connecting to child development within this food network, Prout (2005:44) highlights that “the future of childhood studies rests on ways of treating childhood as a ‘nature-culture’”. In developmental psychology, the infant is seen as a biological organism mainly influenced by her familial environment and especially her primary care giver (Burman, 2008). Children are considered to be closer to nature as they have less experience than adults as a result of their young age (Burman, 2008). In socio-cultural studies, the infant is considered born ‘social’, developing through social interactions (Kaye, 1982). An important fibre in the child development network entangling the biological and sociocultural lines of thought is posthumanism, importantly producing different ways to think about childhood (Taylor, 2013a). To justify this position, Taylor (2013a) explains that although human biology is natural at the same time there is nothing natural about the way people understand and talk about biology. Drawing from Jane Bennett and the term distributive agency, introduced in chapter 2, no single entity is responsible for causing an effect, something that was also highlighted by Latour (2005), who supports that agency becomes ‘social’ when both humans and non-humans are included in the construction of an assemblage (Bennett, 2010). It is worth remembering here that with the term social, Latour refers to the associations between human and non-human (2005; Law, 2007) (chapter 2). Therefore, childhood is an entanglement of heterogeneous entities, which can shape and change it accordingly.

Challenging the modernist dualism between nature-culture, and attempting to go beyond ‘childhood as socially constructed’, the posthuman knot re-maps children and their relationships with food as always still under development. This way of thinking about the child suggests that childhood is not stable or complete, nor is the opposite of adulthood (Haraway, 2016). In addition, thinking about young children as becoming entities, helps me to think about how they are (or could be) affected by the continuous interactions between all these entities and actors/actants within the food network (e.g. milk, culture, media, food waste, politics etc.). I can also begin to sense some of the disruptions and troubles produced by the very idea of the post-human perspectives of

childhood, as most of the messages given about, or to children's eating and 'healthy' food, emerge from a child-centred, anthropocentric framework. I will address this more fully in the analysis (chapters 7 and 8) when my understandings of eating practices in the early years setting becomes de/re-composed with a number of heterogeneous entities such as material, sensual, sociological, economic, cultural, biological entities; environment, smells, colours and routines, to name few (Bryant, 2015).

Prout (2005) argues that the construction of childhood is based on the combination of both culture and nature and Archard (2004) adds that childhood is also a biological phenomenon, an immutable mobile entity across time and space. Following Barad (2007:133), perhaps by seeing childhood as socially constructed, researchers, give too much power to language, something that determines the way the world is understood and represented:

Language has been granted too much power. The linguistic turn, the semiotic turn, the interpretative turn, the cultural turn: it seems that every turn lately every 'thing'-even materiality- is turned into a matter of language or some other form of cultural representation.

As the posthuman thread is drawn into the child development network, it puts all the other threads of thinking back in motion, attempting to work with the material turn and acknowledging the agency and vibrancy of the material world as well as the human world (Barad, 2007; Bennett, 2010). This thread pulls, contorts and distorts the child development network once again, allowing a re-forming of eating habits, culture and class narratives, economics and politics along with many other non-human entities as part of complex meaning-making assemblages. In posthumanism and in relational materialism, no human or non-human is perceived as being above the other, more or less important, privileged or underprivileged, as there is a democratisation between all the components within a network (Murriss, 2016). The posthuman child, is at the same time a material child, a body that not only 'has' but 'is' (Murriss, 2016:88). Murriss (2016) expresses this child as 'iii', a term chosen in an attempt to create a new language, which can include the ontological inclusion of both the material and the discursive. The posthuman child is an entanglement of concepts and matters, which intra-act in a process

where there are no clear boundaries between social, political and biological forces (more examinations of intra-action occur in chapter 8). In addition, the posthuman child represents an equal status to whatever falls out of categories such as woman, feminine, masculine, gender, child, childhood, good eater, fussy eater, well behaved, naughty and ... and ... and ... (Murriss, 2016); it represents the 'other' and the 'different' that this research seeks to uncover. The child for Hultman and Lenz Tanguchi (2010) is still developing, an unfinished subject in process, as Deleuze and Guattari's might describe, always becoming (an idea expanded in chapter 7).

Barad (2003; 2007) and Lenz Tanguchi (2010) have taken the idea and importance of matter (or nature) much further in developing different and less anthropocentric understandings of childhood. For Barad (2007:152) matter (or nature) and meaning (or culture) should be experienced as 'mutually implicated' and 'mutually articulated' between the material and the discursive, with 'dynamics of intra-action' between them. For this reason, the future of childhood depends on the in-between of nature and culture without underestimating either of them (Prout, 2005; Barad, 2007; Lenz-Taguchi, 2010).

Mayall (1999) believes that conceptualisations of childhood shift across place and time. The shift from humanism to posthumanism, according to Braidotti (2013) is also influenced by new technologies, economic, ecological and political changes in the world, all additional and active threads, knots and nodes in the child development network. As Braidotti (2013) highlights, only by meeting and becoming familiar with posthumanism we can construct a future for humans and non-humans. This movement into a new and highly diverse more-than-human world, influences and challenges politicians, academics, governments, local authorities, nurseries, practitioners and parents to re-engage with a vast child development network that is both controversial and unstable as it goes through continuous translations (Braidotti, 2013:13).

In a wonderfully culturally diverse UK, the different ethnic, racial, religious and cultural influences of childhood are always being renegotiated in families who are adjusting to new life in the UK and in institutions like nurseries where different cultures, religions, artefacts, objects, languages, belief systems, foods practices and... and... and ... come into

intense contact with each other. Politicians, local governments, and nursery leaders need to find new and more expansive ways to accommodate diverse conceptualisations of children and childhood within their school policies, pedagogies, practices and environment as the influence of heterogeneous entities is affecting the way children are perceived and treated, “the posthuman turn [is] an amazing opportunity to decide together what and who we are capable of becoming, and a unique opportunity for humanity to reinvent itself affirmatively, through creativity and empowering ethical relations” (Braidotti, 2013:195). This vibrating thread opens up opportunities for early years teachers and practitioners to respond to this rapidly changing world by reconstructing children as entities in progress of becoming some thing else in relation to the environment around them. Children need space to experiment with what and who they are capable of becoming (Braidotti, 2013). This thread pushes and pulls beyond traditional humanist limitations of child development narratives to force radical implications for policies, pedagogies and practices of ‘healthy eating’ for example. It risks the challenge of becoming other, something different, as well as accepting the other and difference without trying to assimilate them into a preconceived or expected network.

3.6 Summary

In this first chapter of the Food Network, a Child Development actor-network was discussed in an attempt to explore key knots and threads influencing young children’s relationships with food. In addition, the role of ANT was examined as a way to organise and structure of the ‘Child Development’ actor network. ANT enabled entities such as constructions of child development, sociocultural influences on eating behaviours and the posthuman child to be mapped out into the thesis and enact something of the complexities of actors as I attempt to craft a story about children’s relationship with food. In the following chapter, I aim to continue exploring the food network in order to develop a closer theoretical and critical ‘networked’ understanding of the way early years teachers and practitioners have come to perceive, and respond to, young children’s relationship with food and their nutritional health in nursery settings. The second actor network, ‘Milk’, will be discussed, building up the material elements influencing the developing food network.

Chapter 4

Food network: Milk

4.1 Introduction

Building on the exploration of child development and the shifting constructions of childhood that I would argue continue to affect the ways nurseries perceive and work with children and their families today, in this section, I focus on what mainly constitutes children's first food, and specifically the many controversial debates around milk. This chapter contributes to the food network by momentarily bringing milk (as an actor-network) into focus in order to examine how both material (milk) and discursive elements (constructions of child development), affect, alter, transform one another, and the readers' understanding, of the developing food network. In addition, 'milk', along with its politics, economics, media coverage, health issues, etc. contributes to the complex networks that inform how nursery practices take form and are sustained. The choice of including milk and its controversies was made because of its importance to children's health, something that is often highlighted in school policies about healthy eating (explored in more detail later in this chapter). Milk has also become critically relevant in the analysis of one of the eating events documented in the nursery setting, which will be examined in chapter 8. In this next section, I will examine the ways in which milk, via the events of breastfeeding and school milk in particular, has become an important feature in 'child development' rhetoric and simultaneously, works controversially as a class-based, political, feminist and economic battle-ground across this emerging food network.

4.2 Milk Network

Again, taken from the wider food network image on page 50 above, the image below concentrates more specifically on Milk, with all the many scattered knots and threads in this actor-network represented by cerise, mustard and green circles . This network contributes to the theoretical and critical 'networked' associations and understanding of how teachers and practitioners have come to perceive, organise, and respond to young children's eating practices. As with the map re-presenting something of the Child

Development network in the previous chapter, the threads in the diagram below represent the interactions between all the actor-networks where contact between each of them is continuous. The entities are not stable but engaged in continuous interactions. Through this chapter my aim is to explore some of those interrelated components so that milk's contribution to the wider food network and more specifically, to young children's relationship with food can be interrogated.

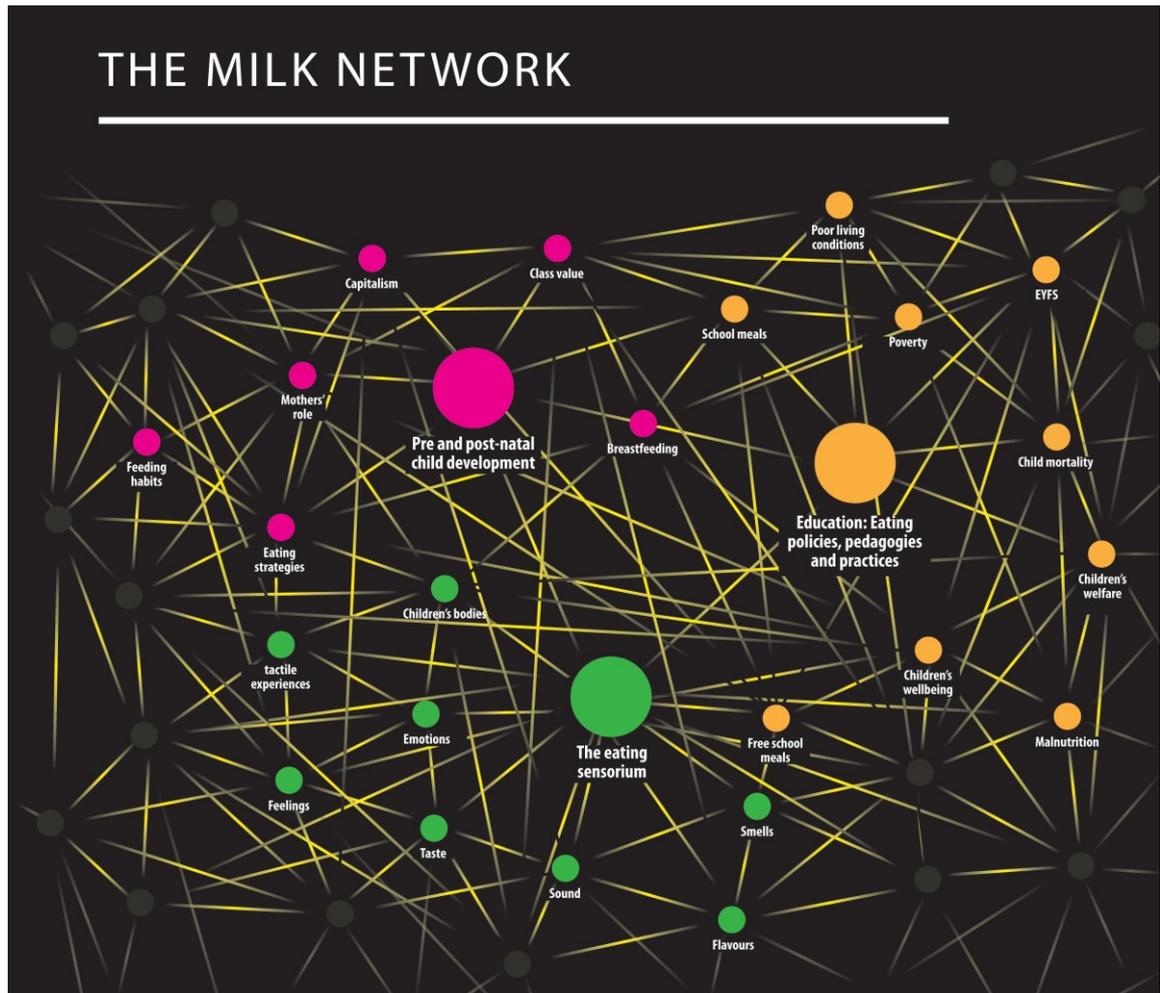


Figure 4 Milk network

4.3 Pre- and post-natal child development

The following section discusses the importance of milk as a significant knot or actor in young children's 'healthy development' narratives, as well as the political and socio-economic messages that are associated with the practice of breastfeeding. In addition, the interactive relationships between milk, food, mothers, eating practices and feeding habits will be discussed to build on the accumulative story around young children's

relationships with food and the way these threads might influence the way practitioners in nurseries think, feel and act.

4.3.1 Breastfeeding and 'healthy' child development

Breast milk has been characterised by Walker and Humphries (2005:16) as the “biological extension of maternal care”. In a report from Save the Children (2013), breast milk has been described as ‘superfood’ that could save children’s lives. Its benefits as a child’s food and health network are numerous and are highlighted every time paediatricians discuss it (Mathur and Dhingra 2014). Breastfeeding has been reported by DiPietro et al. (1987) to be a significant actor influencing children’s behaviours, as the method of feeding is considered to be related with how fussy, active or placid the baby is. In addition, according to Hoddinott et al. (2012), when breastfeeding participates in a child’s food network then both the mother as well as the infant’s health are reported to benefit. Statistics suggest that the proportions of women who breastfeed in the post-natal period are less likely to develop ovarian cancer and bone demineralization (Ball and Bennett, 2001).

However, perhaps the most important benefit of breastfeeding in a child’s ‘healthy’ development network is the reported potential of the developing relationship between the mother, baby and food. The bonding process between the biological mother and the child continues after she gives birth and unconsciously the new-born searches for his/her mother’s breast to satiate his/her biological need of hunger (Davis, 1999). The relevance of breastfeeding, when seen as a process of two bodies touching while exchanging emotions, feelings, fluids through licking, squeezing, touching, drinking and tasting, are significant for this research. This idea will be picked up again in chapter 8, when the sharing and intimacy in between milk, fruit and two children is diffractively analysed. Furthermore, breastfeeding as an actor in children’s food network, could be understood as supporting children’s health by providing them with a variety of different proteins, having a positive effect on the brain, reducing the risk of childhood infections etc. (Walker and Humphries, 2005; Foss and Southwell, 2006). A number of research studies evidence the strong relationship between breastfeeding and its protection against obesity in later

stages of life (Walker and Humphries 2005; UNICEF, 2014; Walker and Humphries, 2005; Foss and Southwell, 2006; Karaolis-Danckert et al., 2007).

4.3.2 Breastfeeding and class values

This section examines the relationship between breastfeeding and social class. Social class is an influential actor within the food network, as well as in this research project overall, as the majority of the children participating in this research are labelled as economically (and often by implication, socially, emotionally, physically etc) 'disadvantaged', being entitled to snacks and a free midday hot meal in the nursery they attend. Socioeconomic background, class and breastfeeding have 'tentacle'-like relationships with each other (Haraway, 2016:2) as they contribute to the ongoing composition of the child development network, inter-acting with the wider food network. Newson and Newson (2013) reflect on class and eating habits in the 1920s and 1930s, giving an example of people's perceptions about breastfeeding. Bottle-feeding for middle class British people was a way to show their status by being able to afford the technology and knowledge to use a different method than breastfeeding to feed their children (Newson and Newson, 2013). Interestingly a few years later and still prevalent today, the middle classes in the UK, grew to be committed to a 'breast is best' view (Newson and Newson, 2013; Stanway and Stanway 1996), perceiving it as the only method to provide children with the best to start life (Burman, 2008). Consequently, Burman (2008) proposes this division particularly in the west between breastfeeding women and those who choose to bottle-feed, causes segmentation and separation according to class and their generation.

Glaser (2014) agrees that in contemporary Britain, breastfeeding is considered a critical actor, mainly in middle class 'healthy child development' networks. Specifically, according to Glaser (2014), breastfeeding rates are significantly lower in working-class communities. It is reported that in the UK, 32% of women who consider themselves belonging to the routine and manual socioeconomic group, used breastfeeding more than six months after their child's birth, in comparison to 65% of the women recorded to be in the managerial and professional group (Glaser, 2014). In addition, positive

correlation was identified between the mother's social class and those who breastfed more or less often to their child during the first three days of their life (Houston et al., 1983). Particularly, the largest amount of milk the babies took during their first days was also related to longer duration of breastfeeding and again this was associated with higher social class (Houston et al., 1983).

A study conducted by Li et al. (2002) in the US, suggests that more negative perceptions about breastfeeding were identified between non-white women under 30 or above 65 years, who came from 'low income' and 'less educated' backgrounds. Consequently, it appears from the aforementioned results that background and environmental elements associated with the mother are influential and fundamental in mother's position regarding breastfeeding.

These studies around class, gender, socio-economic background and breastfeeding indicate a 'culturally' developed understanding about healthy child development. This preference for breastfeeding in healthy child development rhetoric, re-turns⁵ me to the compensatory discourse underpinning the two-year-old offer, where young children from 'disadvantaged' backgrounds are given the opportunity to 'close the gap' or 'catch up' with their peers by entering education from their second year of life. In an attempt to support children who might have had a range of diverse experiences in their early lives that are considered less beneficial to healthy development (maybe with less or no breastfeeding, with family struggles to provide enough food), discourses of equality running through this policy intervention highlight that every child is entitled to a bright start in life (DfE, 2014b).

4.3.3 Breastfeeding and mothers' role in the 21st century

Entangling further the threads that map out the complexity of the breastfeeding network, another line of thought concerns the connection between breastfeeding and

⁵ Following Barad (2014:168), with the term 're-turn', I aim to do what describes as making a turn over and over again in order to make something new, to find new patterns by intra-acting and re-diffracting, term that will be explained and discussed in more detail in Chapter 7.

mothers' occupations. There are 'well designed' media, propaganda and political networks already constructed around all pregnant women, as well as new mothers that include a notion of a 'well behaved' mother who chooses to stop drinking or smoking, carry on working and breastfeed in order to support the developing foetus, her family and the economy. Madden (2015) proposes that in the contemporary west, middle-class women are expected to work, produce financial income for their family, whilst at the same time, producing milk from their bodies for their child while being at work. It seems that the socio-economic, political and media influences in society are powerful actors in women's wider moral, ethical, gendered, class and culturally-based networks and their 'role' as mother seems to be getting even more demanding.

More specifically, in the young child's development network, a mother's occupation is a determinant actor pulling at her decision whether or not to breastfeed. In a study conducted by Kelly and Watt (2005), it was shown that women with the least favourable working conditions were less likely to breastfeed straight after their child's birth than mothers with higher managerial and professional jobs. In a food network where a mother does not breastfeed because the nature of her work makes this option difficult or impossible, negative feelings towards working mothers can be created as a result of the vital combination of actors, knots and threads such as work, mother, breastfeeding, baby, office, capitalism, media etc. (Earle, 2002; Lamontagne et al., 2008; Hoddinott et al., 2012). Mothers are often punished by societal messages, for example through a number of campaigns, that make them feel 'bad mothers' for choosing childcare and returning to work, when governments often support a 'stay-at-home' role by adopting legislation that allows mothers to stay longer at home without impacting on their job.

Following the Maternity and Parental Leave Regulations 1999, introduced by the UK Labour party, employees in the United Kingdom are allowed up to 52 weeks of paid maternity and parental leave. In theory, this policy allows parents to build a bond with their new born in a very a critical period for their life (Smith, 2010). According to that legislation, the parent is entitled to the previous job she had before the leave with the same seniority, pay and pension (Smith, 2010).

On occasions where the main carer needs or chooses to return to work earlier than the 52 weeks, childcare and nursery provision accepts very young children, making it important for them to accommodate, develop and sustain appropriate eating and feeding practices. Pulling on the twisted fibres that connect breastfeeding, social class, ethnic background and mother's role/occupation, it seems that in the Milk network, politics, economics, class, capitalism, media, newspapers, and ... and ... and ... influence any mother's decision to breastfeed or not, to work or not, how long they 'should' stay with their neonate as well as the type of milk that they can offer to their babies, actions that continually transform the food network. These early parental decisions can be influenced by the range and nature of health, social care and education policies in play and are already contributing to the expectations, beliefs and values of practitioners, as well as the pedagogies and practices of eating and feeding in early years provision.

4.3.4 Post-natal surveillance of eating strategies and feeding habits

After teasing out some of the threads connected to the multiple roles and expectations society attributes to mothers or the main carers of a neonate, in the following section, I move onto additional knots and threads that contribute to the 'Milk' network as a child starts to take solid foods; the ways adults choose to feed their child; and the impact this can have on a child's subsequent eating behaviours. The way eating occurs in each family is unique, ranging from a highly-structured familial process with a set time, to a very laissez-faire approach where a range of people could participate at different times and in different places within a house or outside (Fiese et al., 2006). However, there is a wealth of literature and research studies that weave narrative threads, condoning some feeding and eating practices, whilst condemning others in relation to a child developing 'healthy' eating attitudes and behaviours. The following sections examine some of these threads that are all tussling, pulling and pushing at knots that can bind together but also re-distribute beliefs and values, tracing actors that are always moving in and out of the food network.

There is a thread of literature that suggests there is a high correlation between adults' and especially family members' influence on a child's eating behaviours and their later

relationship with food. Parent's daily routine, structure and expectations of their children have an influence on both the home eating environment and the way the family organises its meals (Rhee et al., 2006; Zeller et al., 2007). During the last decade, a positive association has been reported between family meal frequency and child/adolescent healthy dietary intake (Berge, 2010; Fiese et al., 2006; Neumark-Sztaine et al., 2009; Cason, 2006). More specifically, when family meals occur frequently in a house, higher consumption of fruits, vegetables, and milk by the children are reported, together with a lower intake of foods high in fat and sugar and soft drinks (Neumark-Sztainer et al., 2009; Gillman et al., 2000; Videon and Manning, 2003).

Other threads of literature indicate an association between a family's positive engagement and interaction at the dinner table and a child's reduced expression of problematic behaviours in other settings when they eat (Dickstein et al., 1999; Fiese and Marjinsky, 1999). According to Fiese et al. (2006), children's wellbeing and positive attitude to eating is affected by being in a supportive environment where there is 'healthy' communication between the people around the table. The study by Fiese et al. (2006) suggests that whilst sharing food, children are able to feel safe and are able to share thoughts, concerns and discuss any problems.

However, although, there seem to be a number of factors influencing children's attitudes to eating and eating behaviours, the environmental actors are not always drawn out (Sherry et al., 2004; Faith et al., 2004). Some of these seem to include the different types of parental feeding strategies (Johnson and Birch, 1994; Birch and Fisher, 1998); the food portion size (Rolls et al., 2000), the rewards (Birch et al., 1985), and attitudes to 'cleaning the plate' (Birch, 1987). More specifically, a thread contributed by Birch and Fisher (1998) suggests that environmental actors such as parental feeding practices seem to affect the energy levels children develop, which sometimes can lead them to become overweight in the future. For instance, when adults are concerned that a child is not eating enough or too much, they might impose more stringent and regulated feeding practices on her that could lead to the child's decreased self-control and higher energy intake. On the other hand, the restriction of some foods could lead to a child developing a strong

preference for those foods, limiting their willingness to be open to a variety of nutritional foods (Birch and Fisher, 1998).

Pursuing the thread of restricted feeding, this can be a strategy parents entangle with in their child's food network, in efforts to determine her eating behaviours and weight status (Costanzo & Woody, 1985; Birch et al., 1987; Johnson & Birch, 1994; Fisher and Birch, 2000). However, Fisher and Birch (2000) point out that restrictive feeding practices are often associated with negative feelings that girls can develop when they are eating certain foods. The tangled and twisted threads that have knotted at points in this section, pull narratives in different directions, re-forming the 'Milk' network towards a sense of flexibility and adaptability in young children's eating behaviours, something that will be picked up later in the analysis chapters (chapter 8).

The narrative thread foregrounding the significance of eating together around a table returns me again to the two-year-old offer, where children are given free childcare and the opportunity to have at least one hot nutritious meal during their day as well as a snack (usually fruit and milk). Children are provided with the opportunity to eat together with peers, contributing to an agenda of social and cultural 'catch up' as well as building positive attitudes to healthy eating. Snack and mealtimes occur in a familiar environment where children can communicate with friends and teachers/practitioners, comfortably expressing any anxieties, exploring food preferences, and sharing eating experiences (DfE, 2014a).

4.4 Education: eating policies, pedagogies and practices

The relationship people have with food can be mentally and physically challenging and occasionally stressful as messages and slogans from the media such as 'clean eating', 'healthy eating' and 'strong is the new skinny' push and pull across the food network, (re)shaping values and beliefs. Social media, a related series of complex and entangled networks, are saturated by pictures and messages encouraging healthy eating and active lifestyles. Concerns about young people and their (eating) health have begun to dominate institutions such as nurseries, schools and their curricular. Daily menus, exercise regimes and approaches to 'healthy schools' reward systems have been

advocated by policy makers, threading down into nurseries and schools. At the same time, the NHS appears to be influencing policy agendas, and diet industries, which has all mapped onto an expanded network of gyms, health food shops, organic foods, 'lite' and dietary food production, the exercise clothing industry and fitness technologies (such as the fitbit).

In the global north, where health services and health education have been available to school-aged children for a long time (Konu and Rimpelä, 2002), discursive, semiotic and material notions of 'health' are perceived as important actors in the food network. When parents and carers take their children to nursery or school, they are already (sometimes albeit inadvertently) infected/affected by child health narratives and issues, often expecting that a healthy lifestyle will be encouraged in those institutions. There are numerous heterogeneous actors that affect parents' way of thinking and acting, and some of them are included in this food network (such as socio-cultural factors influencing eating behaviours, school meals, pre-and post-natal child development, poverty etc.). Drawing on the 'semiotic relationality' between actors participating in the food network, parents meaning-making is affected by the relationality that emerges in the food network (Law, 2007:7). Thus, parents' views, behaviours and actions are shaped and formed by whilst being part of that food network. Pérez-Rodrigo and Aranceta (2001) argue that school's role is not only limited to education and to providing knowledge but it should also include best models of health, happiness and general well-being for young children.

The Early Years Foundation Stage (EYFS, DfE, 2017) influences, and is influenced by, both the 'child development' and 'milk' literature networks as it changes over time in response to continuous interaction with a web of complex early years networks. One aspect of the EYFS refers to children's safeguarding and welfare, under the section 39(1)(b) of the Childcare Act 2006. The EYFS affects the wider food network as it targets young children, their welfare and wellbeing while in the nursery setting. The framework promotes healthy food, and based on guidance given to practitioners, they are required to be careful in what and how they provide for children, particularly around special dietary requirements and specific eating needs children might have (DfE, 2017). The EYFS entangles policies, histories, nurseries, parents, children, and the Government among an

array of other more-than-human entities in the network of healthy eating in early years settings.

When nutrition policies, pedagogies and practices participate in a nursery's or school's eating network, it is hoped that lifelong healthy eating can be promoted from the early stages of life (Briggs, 2010; Pérez-Rodrigo and Aranceta, 2001). However, research undertaken in Leeds, UK, by Dixey et al. (2001), involving 300 children between the ages of 9-11 years old from 10 different schools, questioned the generally over-simplified notions of policy and pedagogy around eating. They were asked if the children knew what a 'healthy diet' is. Based on their answers children reported that healthy diet was basically a diet that does not contain too much fat as fat could cause heart problems (Dixey et al., 2001). At the same time though, children's actions did not seem to reflect on their knowledge and perceptions about healthy eating as their food preferences were very different from what they consider a balanced diet (Brown et al., 2000; Hamilton-Ekeke & Thomas, 2007). Forbat and Henderson (2005) explained that this happens because although children know what they should do, they usually tend to do what they like doing. So although the educational network already includes guidance and education for children about having a healthy diet and making healthy choices, food awareness and maintaining a healthy lifestyle, more complex understandings are needed to enable adults and children to move beyond this stark and unproductive theory/practice divide to positively influence their own healthy development (Contento, 1992).

According to Moore (2011), government and school policies as actor-networks are seen, for different people, as either too dominant, or not sufficient enough to influence children's eating behaviours. Even on occasions when funding covers the cost of a school lunch, this does not necessarily mean that a child will make healthy choices in relation to what they choose to eat (Moore, 2011). As it was reported by Cho and Nadow (2004), actors such as parental and community support, are needed within children's food networks in order to help children to realise the life-long benefits of a healthy meal and the effects on their life style on their development. In the following section, UK school meal policies over time are explored in relation to successive Government's political targets and ambitions.

4.4.1 School Meals and Milk

Trying to find out more about school meal policies and funds in England, I re-turn to the influence of social conditions to trace the threads that connect to school meals and milk. In the middle of the nineteenth century poor living conditions could be seen as an actor-network becoming more visible in the UK Government's focus on public health. Laws were introduced to make sure that water supplies were clean as well as housing and education were better (Gillard, 2003). Despite a gradual re-formation of the public health network, a few years later statistics suggested that child mortality was no better than it was during the Industrial Revolution - still 150 deaths per 1,000 births compared to 8 per 1,000 which is today (Gillard, 2003). It was reported that between 1889 and 1903 a quarter of the population did not have enough money to live on (Gillard, 2003). Corporate Watch (2005), a not-for-profit co-operative online source provides valuable threads of information about school meals and their history. These threads re-turn the scattered resources back to 1906 where poor living conditions, high child mortality, low income, poverty and... and ... and ... were significant actors in the network. Such high levels of poverty, in addition to parents not knowing much about nutrition, meant that children were not getting the most appropriate nutrition (Corporate Watch, 2005). When the Liberal government were elected in 1906, it became compulsory for local authorities to provide free school meals for children coming from very low-income families (Corporate Watch, 2005). According to the 1906 and 1944 Education Acts, the school meals service was introduced to fight malnutrition (Davies, 2005). Until 1945, 1.6 million meals were being provided to children and of those, 14% were free and the remaining 86% were paid for based on the cost of ingredients (Gillard, 2003).

Few years later, the Second World War caused chaos, poverty, hunger and poor living conditions leaving schools without any specific guidelines about what food should have been (Brown, 2013). Food rationing was introduced in 1940 by the government in order to ensure fair distribution of the supplies and availability so the nation would be as healthy and productive (as a war machine) as possible (Gillard, 2003). With food rationing participating as a scattered resource in the 'milk' network, the school meals service was

expanded under guidelines issued in 1940 and 1941 and finally based on the 1944 Education Act, school meals and milk became compulsory for local authorities (Gillard, 2003). The hot meals served between 1940-1950 included mainly carbohydrates such as breads and potatoes, vegetables and usually minced beef (Brown, 2013). By 1951, 49% of the school population were eating school meals and 84% were drinking school milk. In a study provided by the Medical Research Council (1999), four-year-old children in 1950 had healthier diets than in the 1990s as they reported to have higher calcium and iron intakes through greater consumption of bread and milk, greens and potatoes (Gillard, 2003). However, in 1968 when economic actors entered the school meals and milk networks, the price of school meals rose and as a consequence, the supply of milk to children in secondary schools was ended (Gillard, 2003).

A particularly strong, lively thread that is deeply entangled in the 'Milk' network casts the net back to Margaret Thatcher as Secretary of State for Education in June 1970. The Conservative Government was looking to make cuts to meet their election pledges on tax (Smith, 2010), so Thatcher made the decision to cut four areas in education: further Education fees; library book borrowing charges; school meal charges; and free school milk (Gillard, 2003). The changes to the provision of free school milk has a particular resonance with this thesis, something that will become clearer in the analysis (chapter 8) where it will be picked up again. Thatcher suggested that milk should only be available to pupils in nursery and primary schools. Once she became Prime Minister in 1979 she brought primary school milk completely to an end (Smith 2010). This action has been characterised by Edward Short, then Labour education spokesman, as 'the meanest and most unworthy thing' she did; an action which gave her the nickname, Milk Snatcher (Smith, 2010). The wider story of cutting free school milk is far more complex as a number of politicians and parties were also involved in this decision; something that goes beyond the purposes of this research. What matters though were the threads and resonances for families as they struggled to provide milk every day for their children (Pelling, 2013). Years later, when David Cameron became Prime Minister in August 2010, he too pursued an end to free milk, this time affecting those under the age of 5 years of age to minimise governments spending (Meikle, 2012). Diane Abbott, who is currently Shadow Home Secretary, offers a counter-narrative, an important adjacent thread re-distributing the

network tension when she articulated that cutting free milk is disadvantaging the poorest children and risking the health of some children (Meikle, 2012).

The fibres of politics and economics that vibrate along the school milk thread also entangle changes to school meals more generally. In the 1970s, 'nutritious' school meals were replaced by more attractive options in schools (Gustafsson, 2002). Following the Education Act of Margaret Thatcher's government in 1980, school meals were opened up to private sector for local authorities to find the most 'competitive' offer (Corporate Watch, 2005). This Education Act removed the obligation to provide school meals, and then in 1988 Local Government Act introduced competitive tendering. The effort made to maximise the children's potential choice at lunchtime contributed to the problems of healthy eating (Morgan, 2006), also creating high levels of food waste in schools (Rose and Falconer, 1992).

In the late 20th and early 21st centuries, more women began returning to work once their child was a few months old. This contributed to an increased demand for more early years childcare provision, which put pressure on national government policy makers across Europe for more family friendly policies regarding preschool childcare (Burman, 2008). As a consequence, major transformations happened with regards to school meals. In the 21st century children's health and balanced diet became a principle objective of the UK Government, which placed particular emphasis on the need to change and improve children's health through better nutrition in nurseries and schools (DoH, 2004). Particularly, in England, the 'Food in Schools' policy was launched early in 2005 to promote healthy eating in schools (DoH, 2004). Evans and Harper (2009) argue that UK's standards are some of the most detailed and comprehensive in the world. These policies are followed by regular inspections to make sure that standards are being met and also children's eating has been improved (Evans and Harper, 2009).

More recently, in September 2014, the government introduced a new policy in order to ensure that pupils are provided with nutritious and high quality food, protecting at the same time, those who are nutritionally vulnerable and also promoting good eating behaviours (DfE, 2014a). Caught up in discursive and material threads around child

development, milk, school meals, class, socioeconomic inequalities, 'disadvantaged' children, mother's occupations, eating strategies and feeding habits, the introduction of further policy actors re-locates the Government among the many knots and tensions that give shape to the food network once again. With (c)aims to support and improve children's health, eating behaviour and academic performance, in September 2013, Nick Clegg, the Deputy Prime Minister at that time, announced that children in Years 1 and 2 in state-funded schools would receive a free school lunch in England's schools from September 2014 (DfE, 2014a). In addition, all infant school pupils would also be entitled to a free school snack where milk is included. Furthermore, based on this legislation, 'disadvantaged' students at sixth form colleges and further education colleges were also eligible for free school meals from September 2014, two measures that were estimated to cost approximately £600 million (DfE, 2014a). Nick Clegg highlights how families seem to struggle spending approximately £400 each year on each child's school lunch; money that could be saved and used for other family issues. He suggests that through this policy the Government aims for all school pupils to be able to sit down together and have a healthy lunch with their peers every day (Clegg, 2013). By providing free meals to all school children Clegg (2013: online) hoped "to give every child the chance in life that they deserve, building a stronger economy and fairer society".

Whilst exploring the changes in policies affecting milk and school meals in nurseries and schools, governments, parents, academics, teachers, and practitioners, have all been caught up in the changing and unstable food network around children's health and wellbeing. As capitalism, politics, economics, politicians, elections and voters participate and interact with constructions of child development, the principles of 'free school meals' and 'milk' are translated many times according to each government's aims and interests.

4.5 The eating sensorium

The purpose of this final thread is to explore ways to move beyond the theory/practice divide between the plethora of early years policies that guide health-related pedagogies and eating practices and the complex relations of materials and matter in and among children's bodies, emotions, smells, tactile experiences, feelings, fluids, taste, sharing and

intimacy when senses engage with food. In ANT the way bodies and senses inter-relate to generate flavours and feelings is considered important and re-turns us to the idea and sensations of breastfeeding. Food, not only has a biological and nutritional role in life but is also entangled with pleasure, contentment, strength, guilt, even nausea. All such feelings are influenced by human senses and the more-than-human elements integral to food and the process of eating.

Human senses and bodily sensations are part of the wider food network. This thread focuses on the production of affects and feelings as food is experienced through the senses. As mentioned in chapter 3, Hatjiyianni and Helle (2008) suggest food is responsible for stabilising cultural elements and contributing to the construction of cultural identities, with senses part of an ongoing process of becoming. In the network of senses, actors such as look, smell, taste and texture influence food experiences, producing certain behaviours and feelings around it (Taylor 2012; Kubota, 2012). The look and taste of food in combination with texture, smell and sound appear to be powerful actors in the experience of preparing food and eating (Kubota, 2012). Senses are shaped in relation to all those living and non-living entities that take part in the sensorium network created and developed between them. Therefore, it is important for nursery settings to build on these senses, understanding that young children's eating experiences are composed within such food networks where taste, smell, texture, and appearance are all inter-related and contribute to children's health and development.

The process of eating produces specific sensations and meanings for each person in response to the combination of things, bodies, smell, space, colour, noise level, furniture, environment, advertisements, cultural practices and ... and... and ... Based on previous experiences of food or based on preferences for specific colours, each child might make connections between the colour of the food and its taste (Taylor 2012; Kubota, 2012). Past experiences are connected with colours, smells and appearance, creating certain feelings and determining actions (to eat or not to eat something).

Taste is both a bodily, sensory experience and, according to Ollivier and Fridman (2001), part of cultural capital, referring to attitudes, preferences, manners, know-how,

educational credentials etc. Small (2012:540) sees flavour as “a perception that includes gustatory, oral-somatosensory, and retronasal olfactory signals that arise from the mouth as foods and beverages are consumed”. The combination of sound and smell can also contribute to, and create expectations about the food’s flavour network (Small, 2012). In a flavour network that engages many human systems (e.g. brain, gustatory, oral-somatosensory, stomach etc.) during the processing of food, sound and smell can also affect the way every individual experiences food. Particularly, the sound of the food inside the mouth during mastication, becomes an additional actor associated with perceptions of flavour (Christensen and Vickers, 1981). For instance, the freshness and flavour of fruits and vegetables is determined by their crunchiness. In a study on crisps, participants rated crispier crisps as fresher than softer ones (Zampini and Spence, 2004).

For most people, smell is the stronger sense (Zampini and Spence, 2004). According to Bojanowski and Hummel (2012) people use both their nose and their throat to capture the whole essence of smell. Therefore, in the process of eating and specifically when people talk about taste, the combination of smell and taste is important. Stevenson and Tomiczek (2007) argue that taste can influence smell when different actors enter into their network. Furthermore, texture could be another influential actor contributing to a sense of taste. Research suggests that when food is hard, the flavour intensity decreases (Tournier et al., 2009), taste being influenced by the way people chew their food, as during this process different volatiles are released (Wilson and Brown 1997).

Presentation and appearance are strong actor-networks in how food is experienced. For instance, based on experiences, certain colours suggest the condition of food or drink. Zellner and Durlach (2002; 2003) confirm this, as their study suggests drinks with clear colour (e.g. water) are thought to be more refreshing. This can be explained through our knowledge of water and the feeling water gives us when we have it. When adding red colour to a drink, this automatically gives the perception of a sweeter liquid. Furthermore, colour is a factor that shows when food or drink has started to decompose: brown vegetables could be indicating rotting food (Zellner and Durlach, 2003).

Acknowledging the agency of the material world in this research (Bennett, 2007), humans and non-humans are part of complex meaning making assemblages. Food and senses open up a much more affective eating experience for young children in institutional settings. For instance, children and food or/and senses do not have agency alone. It is the relationality developed in-between them that transforms them (Hultman and Lenz Taguchi, 2010). When children meet food, and senses, and colours and presentation and taste and ... and ... and ..., are all involved in mutual entanglements. Thus, the posthuman child is not alone within this process of becoming. The senses evoked during meal and snack times are all active forces that intra-act with children's bodies and minds. For early years practitioners and teachers it would be interesting to re-think snack and mealtimes with no clear boundaries between the food and the child as they are overlapping forces as the child plays with the food and the food plays with the child in a continuous game of becoming (Hultman and Lenz Taguchi, 2010). The child has relational agency as 'iii', not 'I', as she becomes an entanglement of concepts and matters with no clear boundaries (Murris, 2016).

5.6 Summary

The two literature chapters have identified two ('Child Development' and 'Milk') among many more potential and ever-changing actor-networks that congeal or bring together influential human and more-than-human entities contributing to young children's eating habits and behaviours. When building a food network focusing on young children's relationships with food in the UK, the diversity of children's cultural backgrounds, gendered, socio-economic class, racial, religious identities, and life experiences, are important actors for consideration in every institutional setting. Taylor (2013a), along with Friendly and Lero (2002) claim that most nurseries work hard to ensure inclusion and that children feel comfortable and accepted in the setting.

Given the complexity of the food network and the multitude of complex, twisted fibrous threads that the literature has woven and entangled over these two chapters, drawing on ANT, new materialism and posthumanism, the study perceives food, children, eating and the EYFS that guides their early institutional experiences of eating as going beyond anthropocentric notions of agency and voice. However, Sellers (2013) does conclude in

her research that children need to be considered as central characters when they perform curriculum as they usually gain the leading role experiencing it in living time. In relation to Seller's work around process and becoming, Bruno Latour's sense of relations that could be thought of as between children, objects, matter, curriculum, policy and environment are deemed more important than the individual entities themselves and considered the guiding principle to everything. For this reason, a new approach and attitude towards children and food could help academics and practitioners to redress the dominance of humanism that excludes and marginalises the more-than-human entities always ready at work in order to experience children as continuous becomings. The use of the posthuman 'iii', is suggested by Murris (2016) to help practitioners and academics to think and do things differently. The 'iii' is not a new entity but it is an entanglement that should stimulate "a different sense of a-count-ability, a different arithmetic, a different calculus of response-ability" (Barad, 2014:178).

The use of Actor Network Theory in the organisation of this food network was important, as it facilitated encounters with ideas about children, as well as a whole raft of other critical actor-networks such as child development, socio-cultural influences, the posthuman child, pre- and post-natal child development, school/nursery eating policies, pedagogies and practices and the eating sensorium, as active agents threaded deeply into the fabric of every early childhood setting. It considered information about the relations between the many networks, actors and actants and the way they come together and differ, as well as some of the actions or behaviours created by this entanglement. For example, the influence of political networks at work in educational policy, suggests what occurs nationally or/and globally, deeply influences local activities, especially education and the ways nurseries operate (Olsson, 2009) and visa versa – there is a reciprocal co-constitution at play.

While presenting a tiny glimpse into some of the range of (infinite) actors that constitute children's food network, it was noticeable how socio-economic class/politics, history and 'disadvantage' seem to be key actants / actors / networks with a strong influence on children's eating habits. Reviewing the 'Child development' and 'Milk' actor-networks, it appears that what are considered to be 'poor' lifestyle habits during pregnancy,

breastfeeding and other feeding / eating practices, are influential in the sense that political, economic, institutionalised and media perceptions of children's relationships with food are determined by notions of 'class'. The poorer the child (in financial and cultural capital terms), the more scrutinised her/his life is and the greater judgments levelled at her/his and her/his family in relation to having inadequate parenting experiences etc. Culture and social class need to be considered as congealing actors that participate in, and influence, the wider 'food network'.

This food network has offered a tiny glimpse into some of those tentacle-like streams of thoughts, feelings, things, affects, emotions, and ... and... and ..., that are always moving in and out of the early years eating network. As explained at the beginning of the food network chapters, it would have not been possible to move into all these (and many more unidentified) realms of the food network, as this is never static, nor complete. Thus, based on proximity to the particular topic under scrutiny, I chose to focus more closely on two particular (but still always augmenting, changing) actor-networks. 'Child development' and 'milk' are complex and inevitably part of a massive network of connections, which sometimes feel chaotic and messy, especially when as the researcher and as reader of this work, we are also entangled amongst those networks. As Moore (2016) suggests, when we realise this complexity and mess, then we can understand that we are not alone, something that should make us feel more comfortable. We are all part of a system that acts on us and we act on it. He goes on to argue, we should not talk about a mess but about a 'mesh' a term borrowed from Information Systems and used to describe the way data are distributed within a wired and wireless network (Moore, 2016). Something similar happens to this food network as actors and actants are translated through the processes of enrollment, problematisation, interestment and mobilisation in order to develop paths within a network to connect between them through a number of actions (Callon, 1986).

At the same time Tim Ingold (2011:70) defines meshwork as "... a field not of interconnected points but of interwoven lines", an idea that could help the reader to focus more on the movement and relationality between the entities in this food

net/mesh-work; a useful tool for connecting ANT and New Materialism. Ingold (2011:69-70) continues saying that:

... there is a trail of movement or growth. Every such trail discloses a relation. But the relation is not between one thing and another – between the organism ‘here’ and the environment ‘there’. It is rather a trail along which life is lived. Neither beginning here and ending there ... the trail winds through or amidst like the root of a plant or a stream between its banks. Each such trail is but one strand in a tissue of trails that together comprise the texture of the lifeworld... organisms being constituted within a relational field.

Therefore, while ANT successfully talks about the relationships between human and non human entities and assigns agency to non humans, it fails to incorporate the pathways that make up the relations as integral and equal constituents of the network (Ingold, 2011). Thus, Ingold’s web of relations, is helpful when trying to see that within this net/mesh-work people and things move and while moving they live, something that allows the web’s continuing construction through all the threads and knots created. In that way, actors are a composition of lines, threads, nodes, knots, and fibres that hold the food network together.

In the following chapter, I will discuss the methodology and research methods put to work to open up these ideas during the fieldwork.

Chapter 5

Methodological background

“We (but not only ‘we humans’) are always already responsible to the others with whom or which we are entangled, not through conscious intent but thorough the various ontological entanglements that materiality entails.”

(Barad, 2007:392–393)

5.1 Introduction

This chapter is based on a series of entangled paradigmatic forces, ethics, methods and processes that together, produce the methodological network that has guided the research practices in this study. Drawing from Actor Network Theory, New Materialisms (NM) and Posthumanism, it begins with an interrogation of how the posthumanities have offered new opportunities, as well as produced particular challenges, in relation to ways of ‘being’ and ‘knowing’ in research that emerges from post-qualitative inquiry (Lather and St Pierre, 2013). Methodologically, this research requires us to pay attention to other-than-human worlds, to think relationally with other bodies and objects, to acknowledge the agency of subjects and objects, and also, to recognise the involvement of the researcher and the research process (Taylor and Hughes, 2016). The chapter goes on to examine how the breaking down of traditional structures and dualisms, including the de-centring of the human researcher ‘I’, produces a wider and more complex focus on networks of actors in research events.

The aim of this research is to engage with the complexity, depth and entanglements of the ‘Child Development’ and ‘Milk’ food networks as I encounter eating events⁶ in a

⁶ In ‘The Deleuze Dictionary’, Parr (2005) notes that events are created from a set of forces and they represent the chaotic nature of the world. More specifically, Deleuze, in his book ‘The Logic of Sense’ states that ‘between events, there seem to be extrinsic relations of silent compatibility and incompatibility, or conjunction and disjunction formed, which are very difficult to apprehend’ (Deleuze, 1990b:170). There are four characteristics of an event, according to Deleuze, the extension, the intensities, the individual and “prehensions,” and the eternal objects or ‘ingressions’ (Deleuze, 1993:77-80). According to these characteristics, events address time and space and they are inter-related with one another; they have intrinsic properties/qualities such as height, intensity, a value, a saturation of color (Deleuze, 1990b: 70); and lastly events are composed of objects which shape what events are. Another useful definition of ‘event’ comes from Whitehead who argues that “events are lived through; they extend around us. They are the medium within which our physical experience develops, or, rather, they are themselves the development

nursery setting. To do this, I needed a methodology, or a mixture of methodologies and methods, to help me unsettle taken-for-granted knowledge about children's relationships with food and I found a post-qualitative approach useful in foregrounding the "awkward, messy, unequal, unstable, surprising and creative qualities of encounters and interconnection across difference" (Stewart 2007:128). Overall, this methodological chapter is an effort to articulate this approach to go beyond the more familiar methodologies of traditional qualitative research by moving into posthuman frames (Taylor and Hughes, 2016).

5.2 Troubling anthropocentrism

By trying to develop more intricate understandings of the wider field of relations in nursery that include food and the child, I realised that an anthropocentric and humanist approach in this research would not be adequate because of the focus placed on individualised acts, where agency is only ever tied to human action (DeLanda, 2006). In this study, questions kept emerging, such as: "how can I move away from always being caught in the associative chains that return me to anthropocentric approaches, always driving my researcher self back to the human?" "How can I question the role of 'I' in this research when the objects and subjects referred in this work have been perceived and experienced by me?" "How can I open, as a researcher, in corporeal affectivity in this research?"

Such ongoing preoccupations foreground some of the limitations I came across in humanist qualitative research. My time working on this study has forced me to think about my own attachments in relation to the human-centric ways I experience my 'self' as a human; as a female Cypriot; a consumer of food; as a researcher. In the process of displacing the human researcher from her central-key role, posthumanism, NM and ANT offer an ontology that "cuts across" the realist/constructionist dualism (Barad, 1996:165), moving the focus to the world of interactions (Fox and Alldred, 2015).

of that experience" (Whitehead, 1920:144). More discussion about events will be carried out into the analysis of this thesis (chapters 7 and 8).

In NM, history, as well as the world is produced by material, physical, biological, psychological, social and cultural forces (Barad, 1996:181; Braidotti, 2013:3). Challenging dualisms between the material, social, physical and cultural past/present worlds, allows affective relations to be emerged in circulation, shifting the central focus to the affective capacities in-between humans and non-humans (Braidotti, 2013). At the same time, Barad (2007:3) argues that “matter and meaning are not separate entities” but relational. Haraway (2008:3) at the same time, uses the term ‘becoming worldly’ in an attempt to help the reader to consider the relationality between humans and non-humans in the world and the way non-human worlds can change us and the way we can change them. Such way of thinking can help us to see that non-humans have agency and understanding their participation in our becoming is essential, as we are becoming with that world that we are living in. Therefore, challenging anthropocentrism, we need to realise how we can become with the non-humans and what that means for the world.

Moving beyond anthropocentric approaches, education can be seen through assemblages, materialities, flows and developing new analytical processes and tools (Taylor and Iverson, 2013). As Lather and St Pierre (2013) point out, it is our attachment to a human-centric world that holds us away from new ways of thinking and living. As highlighted in the Theoretical Orientation chapter, in classical sociology, the social was understood as constructed by the human subject (Gane, 2006). In a posthuman world, it is necessary to rethink the concept of ‘social’ and pay more attention to the way it has been developed. It seems that it is “never something that is in itself ontologically real and separate” (Haraway, 1997: 68). Haraway (1997:8) adds that “social relationships include non-humans as well as humans as socially . . . active partners”, intimating that people engage not only with humans but also with artefacts, things, nature, developing relations with ‘natural’ environments and/or non-humans (Panelli, 2010:80).

Consequently, the aim of this study is to productively unsettle policy narratives of rationality and progress (healthy eating = milk), as well as normality (‘good’ eating habits and practices = child development), to open up more complex sensory, embodied and networked experiences and sensitivities, that go beyond discourses of familiar narratives

of healthy eating and a balanced diet, something that it has been explored before. In addition, by doing that, emphasis will be placed on the micro and usually overlooked moments happening in meal times in nurseries, which contribute to the complexities of the food stories. Therefore, focusing on the intra-actions between entities, will allow this work to emphasise the ways in which all matter makes other matter matter and how they produce each other while producing at the same time, new understandings (Barad, 2007; Deleuze and Guattari, 1987).

This research is an attempt to move from 'humanist centrings' to 'posthumanist profusion' by looking at the context of an early years setting as multiple and heterogeneous (Taylor and Hughes, 2016:6). Dealing with new terms and ideas such as materiality, embodiment, relationality, vitality, and affection, while conducting this research, I found myself working with a type of inquiry that, according to Taylor and Hughes (2016), cannot be left behind, as it kept being re-activated, enacted and motivated by other subjects, objects, sensations, thoughts, affects, and forces. This change brought a new way of conducting research for me, unsettling hierarchies as I tried to understand myself as a researcher in relation to other humans, the more-than-human (such as technology, camera, computers) and non-humans (Taylor and Hughes, 2016). Lather and St Pierre (2013) argue that posthumanist ontology outlines what comes after humanist qualitative methodology. The structure of this research was produced by re-thinking the components of the study (research questions, literature review, theories, methodologies, research methods and processes for the engagement with data), ensuring that the human is not seen as superior and separate from the empirical materials encountered (Lather and St Pierre, 2013).

5.3 Post-qualitative inquiry

With a research focus on the complex and entangled matter and materiality of food and young children, the paradigmatic framework offered by humanist qualitative research seemed inadequate to get at issues of the more-than-human relations at play in the food network and in the nursery. This urged me to move into the post-ontologies and the idea of much closer relational encounters between ontology and epistemology. A continually emergent way of thinking in, and about, research forced a theoretical re-turning of the

relations between humans and matter, placing the embodied human within a material world (Coole and Frost, 2010).

In a post-qualitative inquiry, the typically privileged human is de-centred as the focus moves to the intra-active ways the world is produced through a series of relations (Fox and Alldred, 2014). The idea of relationality was critical to the use of ANT in the gathering and organizing of literature in the food network. It also has significant implications for the methodological approach I have used in two ways: firstly, the complexity of the research focus demanded a different approach to inquiry; and secondly, the potential of entangling ideas and methods from the posthumanities with traditional qualitative research enabled data to be engaged differently (Coleman and Ringrose, 2013). This was necessary in this research, as the thesis places emphasis on the relationality between entities, rather than focusing on their categorisation into pre-determined themes or codes, something that would limit data's potentialities. By considering the multiple transformations between children and the way they engage with other human and non-human bodies, allowed a new way of thinking regarding children's becomings. This relationality between the data allowed for new thinking-feeling about what the body is capable of doing, rather what a body is (Deleuze and Guattari, 1987).

In addition, post-qualitative research differs from more traditional qualitative research in the way data is perceived by the researcher. For instance, instead of trying to collect data that are already out there with the intention of categorising and interpreting them and reaching conclusions, post-qualitative research suggests a less structured way of encountering the relationship between researcher and 'data', where dualisms between subject and object, the interpreter and the world out there are collapsed, producing different meanings (St. Pierre, 1997; St. Pierre, 2011; Johansson, 2016). This collapse of dualisms makes available new analytical tools that help me to re-think the co-constitutive relations occurring between knowledge, practices, human and non-human elements (Taylor and Ivinson, 2013:665). Furthermore, the data gathered are never stable in post-qualitative research but constantly moving and transforming inter-active networks, together with me, my training, the other participants, the theoretical concepts, the food networks, the methodology, the photographs, the videos, the informal conversations,

the observations, the place where writing takes place (Youngblood Jackson and Mazzei, 2012).

In post-qualitative research, methods are created and chosen in alignment with the theory being used (St. Pierre, 2011). For example, in this small-scale, networked and relational study, the main aim was to find specific methods of data collection and analysis that would acknowledge all the bodies (human and non-human) participating in the production of knowledge (Johansson, 2016) about eating behaviours and relationships with food. The paradigmatic shift to post-qualitative research enabled me to avoid the use of codes or thematic analysis sometimes put to work in interpretivism, and data became complex, on the move, relational. Assemblages could be created between all components participating in the production of the research, to connect and generate alternative methods and produce knowledge differently (Johansson, 2016).

However, there were many challenges encountered as I tried to put post-qualitative inquiry to work in this study: the persistent tendency to re-centre the human, my 'self' as the researcher, privileging a knowing 'I' and the children and early years practitioners as 'knowable' subjects; the temptation to value the observations as a representation of something 'real'; and perhaps the most difficult part of thinking and doing this research differently, was the writing. One of the key aims of this thesis was to produce different knowledge but also to produce that knowledge differently (Lather, 2013). I am engaged in writing a Ph.D. thesis, which will be marked against pre-determined criteria, thereby satisfying institutional demands and able to 'stand up to' scrutiny and examination by a panel of other researchers and academics, I am mindful that these processes demand that I represent something of 'reality' through a system of language that re-inscribes a language/reality binary that post-qualitative research works to dismantle. Post-qualitative research moves beyond language using images, sounds and smells, experiencing language in relation to all other material elements located in the material world (MacLure, 2013a). MacLure goes on to argue that such a 'materially engaged language' would be "non-representational, non-interpretive, a-signifying, a-subjective, paradoxical and embroiled with matter" (MacLure, 2013a: 663). I will discuss more about the tensions that language, and the other challenges produced in this study as this

chapter unfolds. I need to clarify that in this study it was not my methodological intention to underestimate the workings of the human or language in research. Whilst thinking with humans and humanistic ontologies, the aim of this research was to consider how research might go beyond these, moving into more-than-human territories generated by a particular early year's research context, provoking new and different questions (Lather & Pierre, 2013). The focus was in line with what Coole and Frost, (2010:27) describe, as conducting and presenting research that senses something of what it means to live as "material individuals with biological needs" in a world composed of other subjects and objects.

Therefore, when writing, I could see that the heterogeneous entities that I had available, such as subjects, objects, theories, pictures, videos, sounds, smells etc., were all useful to each other in the assemblages created as part of a new materialist writing environment (Hawkins, 2009; Rozynski, 2015). In this posthuman and intra-active⁷ assemblage of writing where materials are seen as active in the production of meaning, I found myself collaborating with them in order to enrich the meanings produced. Components such as smells, food, milk, which are more than linguistic, appeared to have the capacity to produce meanings, a function that so far was only attributed to alphabetic symbols (Rozynski, 2015).

The following section continues with the exploration of the ontological and epistemological backdrop of this research, weaving across Actor Network Theory (Latour, 1987; 1993; 2005), New Materialisms (Dolphijn and Van der Tuin, 2012; Fox and Alldred, 2015;) and Posthumanism (Taylor and Hughes, 2016; Hayles, 1999), tracing the ways these each, and accumulatively, have informed, materialise and transform this methodological network. A number of key concepts become significant figures in this methodological approach, including affect and assemblage, unraveling as I move through this chapter and the one that follows where more explanation is provided for the process of analysis.

⁷ This term is a key concept in Karen Barad's work (2007). Intra-actions are responsible for the mutual constitution of humans and non-humans, and for this reason, they do not, cannot exist individually (Hammarström, 2010). More details about intra-actions can be found in the 'Assembling research methods' section below.

5.4 ANT and relational ontologies

As already explained, the discussion of the literature influencing the subject of young children and food was organised with the help of ANT. However, as I started thinking more about the agency of non-humans as well as the complex ideas of relationality, plurality and heterogeneity in/of the world, ANT's structured ideas around actor and network began to feel confining. In order to address this, I decided to combine ANT with other methodological concepts, to open up the empirical materials to the process of analysis in new ways. In the following section, I will explain how ANT with its related ontology worked as a starting point for moving into New Materialisms. Following the idea of assembling entities, it is particularly helpful to interrogate the connections between entities that produce a methodological network and explore the associations made and unmade between them and the outcomes produced (Alcadipani and Hassard, 2010).

5.5 A relational theoretical background

In order to understand the various relations between children, food, eating habits and behaviours, nutrition, nourishment etc., a close examination of relating entities is useful for the critical understanding of mealtime in nurseries. Eating seems to me, to be far from a straightforward issue. Scientists from a range of disciplines, including nutritionists, anthropologists, biochemists, psychologists and physiologists suggest it is complex research work interrogating the intricate relationships between eating and human behaviour, physiological processes and neurological activity (Blundell and Halford, 1994).

Lee and Hassard (1999) argue that ANT appears to be ontologically relativist; relative to the place, the time, the culture, etc., where entities and networks are produced. They justify this position by explaining that in ANT, the world is perceived to be organised in many different ways (Lee and Hassard, 1999). Relational ontology is a theoretical position and methodological approach that implicitly or explicitly makes relations between complex and multiple entities requiring close investigation, deep description and explicit analysis (Wildman, 2006).

ANT offers a powerful relational ontology, which informs the explorations of the relations between children, food, cutlery, noise levels, affects, furniture, temperature, smells among a host of other human and non-human entities. As the relations between the entities are fundamentally more important than the entities themselves in ANT, relational ontology seems relevant (Wildman, 2006). Drawing on Law (1999), ANT has a relational materiality, which means that entities achieve their form and attributes because of the particular relations that they build between each other and with other entities. For Latour (1999a) there is neither a local nor a global dimension; there is only a relational; once they relate there is no distance between them.

Being also influenced by Deleuze and Guattari's notion of 'becoming' (Deleuze and Guattari, 1987), this work gathers together collective assemblages of bodies and objects, reconsidering those human and non-human entities whether visible or not, as I try to explore their active and accumulative role in a nursery as children are eating. Following the artist Sylvia Kind's (2010) example in this research, I choose to think *with* things – alongside them, by listening to them, caring for them, being and exploring with things and drawing on those subject and objects that drew my attention the most while I was observing them (Taylor et al., 2012). The idea of becoming was also useful in the production of a relational analysis. As Fox and Alldred (2017) explain, such analysis is completed within the assemblages at the level of affects and capacities rather than looking for exterior meanings. As Duff (2010) argues, affects act on bodies (human and non-human) and they alter them and their capacities.

5.6 Onto-epistemology

For Lather and St. Pierre (2013) the aim of post-qualitative research is to experience ontology and epistemology together, something that Deleuze refers to as the ontology of immanence (Bryant, 2008; Lenz Taguchi, 2010). In humanist qualitative research, when ontology and epistemology are understood separately, ontology refers to the nature of existence and reality and epistemology concerns with how we can obtain knowledge, and the relationship between knowledge and the knower, and what valid knowledge is and the assumptions that underlying the process of knowing (Guba & Lincoln, 1994; de

Gialdino, 2009). According to Deleuze (2001), to see what is learned as separate from the one that is learning, is impossible. An ontology of immanence is about producing learning and has an application in educational research as learning happens with active participation⁸ (Johansson, 2016).

Thus, as the dualism between ontology and epistemology is challenged by Deleuze's ontology of immanence, Johansson (2016) suggests that the same happens for humans and non-humans and other subjects and objects. Barad (2007), explains these ideas when she uses the term onto-epistemology, arguing that humans need to take into consideration their own embodied involvement in knowledge production while being connected with other objects and ideas; it is this messiness that produces knowledge. More specifically, she highlights, that knowing and being cannot be separated (Barad, 2007). Barad (2007) suggests, that researchers need to think and talk about onto-epistemology, "the study of practices of knowing in being" (2007: 185). She also continues saying that "we do not obtain knowledge by standing outside the world; we know because we are of the world. We are part of the world and its differential becoming" (Barad, 2007: 185). Furthermore, for Barad (2007) the uniqueness of seeing ontology and epistemology together is that it allows us to realise that in New Materialism, matter and meaning are con-fused. Specifically, she argues that:

Matter and meaning are not separate elements. They are inextricably fused together, and no event, no matter how energetic, can tear them asunder. [...] Perhaps this is why contemporary physics makes the inescapable entanglement of matters of being, knowing, and doing, of ontology, epistemology, and ethics, of fact and value, or tangible, so poignant (Barad, 2007:3).

Reflecting on this idea, humans are no longer determined as bounded entities, in existence outside of relationships, but are co-constituted along with matter (Taylor and

⁸ To explain this idea, I draw on an incident that happened during one of my visits to a nursery where children were provided with ingredients for a cake and all together, with the help of their teacher, they had to make a birthday cake in order to be able to celebrate their friend's birthday. During this process, a variety of entities (children, flour, icing, decorations, the purpose of the activity, teacher, milk, spoon, oven etc.) came together in order to create the desired outcome. In this example, children (who are learning), are not passive and cannot be seen separated from what they are learning.

Ivinson, 2013; Bennett, 2010). Consequently, in new materialist research, a challenge is to recognise and accept all the forces, capabilities and energies that come from matter in combination with humans (Braidotti, 2013). Furthermore, matter has an implicit role in life as it affects our thinking and acting (Barad, 2007). Davies (2014:11) adds to this idea arguing that “thought and action are mutually entangled, just as individual beings, who know and who act, are mutually entangled”. In addition, as Hultman and Lenz Taguchi (2010) argue, it is important in onto-epistemological thinking to de-centre the researcher, ‘I’ should not be seen as the only knowing subject. Researchers need to see the dualisms between I/not I, subject/object, human/non-human, discourse/matter, as mutually implicated (Hultman and Lenz Taguchi, 2010).

To engage with the production of knowledge in this research, I needed to “understand the world from within and as part of it” (Barad, 2007: 88). I needed to pay attention to the differences and transformations that were produced during the specific events I was entangled with. This idea was helpful during the process of working with photographs and videos and when reading and writing research. It was, of course, a difficult process of thinking and writing in a different way, as I was trying to move away from a reflective way of thinking and a reflective language. The difficulty of changing or creating a new methodology is highlighted by a number of researchers (such as Alaimo and Hekman, 2008). However, during the last few years, a plethora of fascinating research has emerged in the field of social and educational sciences, putting this new relational way of doing and writing differently to work; studies that have been very influential to this methodological network (Lenz Taguchi, 2010; Jones et al., 2016; Youngblood Jackson, 2010; Jones et al., 2012; MacLure, 2013b; 2013c; MacLure et al., 2012).

In this chapter, I work with concepts such as onto-epistemology, intra-action, embodiment, diffractive analysis, and becoming, as they allow me to produce different ways of knowing about children’s relationships with food. Particularly employing diffraction as a guiding concept for my analysis (picked up later in chapters 7 and 8), I was able to think about how meanings can emerge within post-qualitative research. As Davies (2014:2) highlights,

the concept of diffraction replaces the more usual concept and practice in qualitative research of reflexivity. [...] Diffraction does not reflect an image of what is already there but is actually involved in its ongoing production. [...] Whereas reflection and reflexivity might document difference, diffraction is itself the process where difference is made.

5.7 Flat ontology

This distinctive ontology has been described as 'flat' or 'monist' (rather than 'dualist'), rejecting differences not only between historical materialism's economic 'base' and cultural 'superstructure' (Marx, 1971) but also between 'natural' and 'cultural' realms, human and non-human, and – perhaps most significantly – between mind and matter (Van der Tuin & Dolphijn, 2010). A flat ontology also marks a re-focusing of attention upon 'events', "the endless cascade of material interactions of both nature and culture that together produce the world and human history, rather than on structural or systemic 'explanations' of how societies and cultures work" (Latour, 2005: 130).

Augmenting the above conversation around ontology, in research where differences between historical, cultural, natural, social, humans and non-humans, mind and matter are rejected (Van der Tuin & Dolphijn, 2010), elements of a distinctive ontology appear; an ontology which can be described as 'flat' (Marx, 1971 in Fox and Alldred, 2017). In a flatter ontology, all entities are seen to be ontologically equal, no entity, physical, symbolical or natural, has greater ontological dignity than other objects (Bryant, 2010). Bryant (2010) argues that flat ontology rejects the idea that one type of entity is responsible for the origin of all the others. However, although it is acceptable that some entities might be more powerful than others, and some entities are different to others, this does not necessarily mean that these entities are more real, as all entities exist (Bryant, 2010; 2016). A flat ontology is useful when thinking about the nursery as a network, a flat space where elements interact across the materiality of the economic, social, political, and cultural structures that distribute power differentially around the place, producing knowledge in different ways and at different times.

Manuel DeLanda, (2002) was the first who used the term flat ontology in his work, and he describes it as:

...[while] an ontology based on relations between general types and particular instances is hierarchical, each level representing a different ontological category (organism, species, genera), an approach in terms of interacting parts and emergent wholes leads to a flat ontology, one made exclusively of unique, singular individuals, differing in spatiotemporal scale but not in ontological status (DeLanda, 2002: 58).

New Materialisms renders the human no longer solely responsible for knowledge production or/and construction; humans and non-humans are all involved in the process of meaning making (Taylor and Ivinson, 2013; Bryant, 2010). This suggests a non-hierarchical, flattened ontology that considers both human and non-human elements during knowledge production, with matter experienced as alive (Taylor and Ivinson, 2013). Humans are required to take greater responsibility for their capabilities and recognise the capacities that things possess (Bennett, 2010). In flat ontology “all contemporaneous lives” (Schatzki, 2002: 149) in the world “are linked through the unfolding of intermeshed sites” (Marston et al., 2005: 426).

5.8 Justifying the shift from ANT to NM

This methodological network is composed by ANT and FNM, in an attempt to offer new opportunities in relation to young children’s relationships with food. In the following table the connections, disconnections and alliances of the two approaches are presented. In this research assemblage, there was a shift from ANT to FNM, however, both theoretical and methodological frameworks were chosen as they supplement each other, producing a powerful ‘Relational Methodology’ which enables more understandings to emerge about young children and their relationships with food in a field where human and non-human entities have equal capacities in their production. The shift mainly emerged when I tried to engage with the translation process in a network, while trying to familiarise myself with some of the ‘data’ collected. Drawing on ANT, translation happens when one entity works upon another to try to change it (or translate it) in order to become part of a network (Callon, 1986). This process of entering and leaving a network is not linear, but it is very specific at the same time, giving limited flexibility within its four different stages of completion. This feeling of rigidity left me trapped in a process of following and describing actors translating actants into a network. This very

descriptive process was beneficial and productive for the organisation of the literature in this study. However, when becoming more familiar with FMN-inflected assemblages, where fixed processes and strong linkages are missing between the entities, new meanings and explanations were enabled. Therefore, although Latour's background (representing ANT) includes sociology and Barad's (representing FNM) includes life sciences, it was useful, generative and productive to find ways of working them together in this thesis. This work is about relations, and although as social and life scientists they do not start from the same place, nevertheless, they both work to disrupt the centrality of the human.

Actor Network Theory	New Materialism
ANT <i>challenges dualistic distinctions</i> without rejecting them.	The idea of <i>relationality</i> has significant implications.
ANT overcomes hierarchical and traditional ontology where humans are privileged	The typically privileged <i>human is de-centred</i>
ANT goes beyond the subject-object division by recognizing the <i>agency of non-humans</i> (Latour, 2005). Agency is an essential part of ANT and it is a relational and collective capacity of humans and non-humans (Kontopodis, 2012; Goodman, 2001).	<i>Affect</i> in NM is seen as the result of agency. Affect is the capacity to affect and be affected by other bodies (Deleuze, 1992). Affect is de-centred (Lorimer, 2008).
<i>Social</i> for Latour is the coming together (ANT is also called as the sociology of associations) (Latour, 2005; Law, 2007)	The focus moves to the <i>intra-actions</i> . The world is produced intra-actively while moving away from a human-centric way of thinking (Barad, 2007). This intra-activity is responsible for the mutual composition of both humans and non-humans (Barad, 2007; Hammarstrom, 2010)
<i>Reality</i> is produced with the collaboration of both humans and non-humans and it goes beyond the human mind of any individual. ANT seems mainly interested in the relations between entities and sees the world through associations (Muller, 2015).	<i>Material turn</i> Acknowledging the agency and vibrancy of the material world as well as the human world (Barad, 2007; Bennett, 2010).
<i>Explanatory/Descriptive</i>	<i>Post-qualitative Research</i> The typically privileged human is de-centred as the focus moves to the intra-

<p>ANT does not intent to offer an explanation of the world or why something happens (Law, 2007).</p> <p>It is helpful to use ANT in an attempt to understand the way the world is accomplished, as it is a very descriptive and productive process (Van der Duim et al., 2013)</p>	<p>active ways of the world production; something that happens through series of relations (Fox and Alldred, 2014).</p> <p>Different way of perceiving the data (a less structured way of encountering the relationship between researcher and 'data', where dualisms between subject and object, the interpreter and the world out there are collapsed, producing different meanings (St. Pierre, 1997; St. Pierre, 2011; Johansson, 2016).</p>
<p><i>Networks:</i> There are strong links between the entities composing a network.</p> <p>There is a very specific process of entering and leaving a network (the four stages are: enrollment, problematisation, interestment and mobilisation) (Callon, 1986)</p> <p>"the political significance of materials is not a given; rather, it is a relational, a practical and a contingent achievement" (Barry, 2013:183).</p>	<p><i>Assemblages:</i> These strong links are missing from an assemblage in order to become a network.</p> <p>The component parts have inherent qualities themselves, individually, that they bring with them into the assemblage that they become part of and shape accordingly (Muller, 2015).</p>
	<p><i>Embodiment</i> is seen as the use of the body as "the vehicle of being in the world" (Merleau-Ponty, 1962:82)</p>
<p><i>Interconnections between the actors and actants:</i> According to Latour (1987), entities within a network are highly interconnected and each change/alteration simultaneously affects and modifies the whole network.</p> <p><i>Actor-Network</i></p>	<p><i>Entanglements:</i> In this study emphasis was placed on the entanglements of all the elements as they all matter; although, sometimes some of them might matter in different ways to others (Fenwick et al., 2011).</p> <p>"We are always already responsible to the others with whom or which we are entangled, not through conscious intend but thorough the various ontological entanglements that materiality entails" (Barad, 2007:392–393).</p> <p>Donna Haraway's String Figures (Science Fiction, Speculative Fabulation)</p>

<p>The term ‘network’ comes from Diderot who used the word “reseau” to describe matter and bodies avoiding the Cartesian divide between matter and spirit (Latour, 1997). John Law refers to ANT as ‘Material-Semiotics’ as network relations are created between matter and concepts (Rimpilainen, 2009).</p> <p>“Actor-network theory, does not deny that human beings usually have to do with bodies, neither does it deny that human beings, have an inner life. However, it insists that social agents are never located in bodies alone, but rather that an actor is a patterned network of heterogeneous relations, or an effect produced by such a network. The argument is that thinking, acting, writing, loving, earning -- all the attributes that we normally ascribe to human beings, are generated in networks that pass through and ramify both within and beyond the body. Hence the term, actor-network -- an actor is also, always, a network.” (Law, 1992: 4)</p>	<p>Speculative Feminism etc.), suggest we need to work on new bodily habits, crafting new words and languages to interrupt the mind/body, cognitive/physical distinctions that inhibit the ways we can affectively and practically engage with the world.</p> <p>“practice and process; it is becoming-with each other in surprising relays” (Haraway, 2016: 3)</p>
	<p><i>Becoming</i> (Deleuze and Guattari, 1972; 1987)</p> <p>The posthuman child is not alone within its process of becoming. Children are not fixed or stable but they are becoming within the environment around them.</p>
	<p><i>Diffractive Analysis</i></p> <p>This more materially-engaged process of analysis allowed me (the researcher) to engage with different ways of seeing and thinking with data in educational research. Thus, I was able to think how the research event is composed of both human and non-human elements without privileging one over the other (Mazzei, 2013)</p>

Figure 5 ANT and New Materialism

5.9 The messiness of methodology

Lying within the broader territories of post-qualitative research and relational ontology, with the importance of non-human agency coming together with the de-privileging of the individual human, the focus now moves to a 'tool' that helped me to rethink what messy, proliferated 'inquiry' or 'research' might look like in a post-qualitative study. I am interested to find out more about the way 'assemblages' produce the world (Fox and Alldred, 2014). Within this study, this idea has significant implications for the methodological approach taken, the research methods selected and the research process followed.

New Materialisms, as part of a broader methodological backdrop to this study helped to the consideration of the ways all human bodies and objects can be brought together in order to make sense of the world of children's relationships with food. If this non-hierarchical approach to research is based on human and non-human entities co-producing flattened knowledge, where matter is alive and taken seriously (Taylor and Ivinson, 2013), I need to rethink as a researcher my role in this process. As the methodological network unfolds the term assemblage was put into work in the methodology and analysis. 'Assemblage' and 'networks' might evoke similar ideas, but take on slightly different meanings every time they slip into other fields. Both terms in the literature appear to give attention to material things including, animals, environment, nature, documents and so on. Both network and assemblage thinking, see the combinations between subjects and objects to produce agency and space (Muller, 2015).

Therefore, the methodological emphasis shifts from the individual, discrete and bounded human (as researcher and participant), to the ways the world is produced through assemblages of heterogeneous entities, something that creates fundamental implications for social inquiry methodology and methods. The term assemblage is used extensively in NM but it was initially developed by Deleuze and Guattari who saw assemblages as 'machines' that bring elements together and link them in a way to produce something (Deleuze and Guattari, 1988: 4). In research, assemblage might be understood as a process that perceives all the elements of a research process in relational

association with one another; for example, the data collection process, the data, the researcher, the participants, the notes, etc. (Fox and Alldred, 2014; 2015). The conclusions drawn in research could be the outcome of the assemblage, going on to inform the educational system, the policy, the wider academic world.

The term assemblage seems to resonate with Callon, Law and Latour's actor-network, as scholars refer to it as a combination of objects and subjects in close association with each other. However, Barry (2001) suggests the term assemblage refers to dynamic entities under continuous reconfiguration and not as fixed structures. Perhaps, what distinguishes assemblage from a network is the work done by, and the strong links between, the entities, something that it is needed in an assemblage in order to become a network.

The parallels between networks in ANT and assemblages are interesting and significant (Muller, 2015). However, there are also significant differences. ANT seems mainly interested in the relations between entities and sees the world through associations. For an entity to become capable of action, it needs to translate other entities to produce an actor-network (Muller, 2015). Therefore, "the political significance of materials is not a given; rather, it is a relational, a practical and a contingent achievement" (Barry, 2013: 183). In contrast, in assemblage theory, the component parts have inherent qualities themselves, individually, that they bring with them into the assemblage that they become part of and shape accordingly (Muller, 2015).

The second difference between actor-networks and assemblages has to do with the more practical methodological and conceptual application and explanation of ANT in comparison to the theory of assemblages (Muller, 2015). Particularly, in ANT there are a lot of terms explaining its application in empirical work such as actors, actants, immutable mobiles, translations, which are helpful in understanding its components and the way they work together in order to be able to apply these in practice and understand the way associations come together and work together. This seems to render ANT more usable for empirical application (Muller, 2015).

After reviewing the literature and examining some of the similarities and differences between 'network' and 'assemblage', the boundaries between them remain largely unclear, perhaps indistinct; assemblages and actor-networks could be seen as similar but not the same. However, I am drawn to the use of assemblages here as an idea that refuses logical structure and want to see how it might be understood and used in, as well as compliment this research.

I draw from Marcus and Saka's use of assemblage in their work (2006), where the term is used as a kind of anti-structural concept that is helpful for me as a researcher to explain the de-centred and the ephemeral relations that occur and are developed through certain associations between heterogeneous entities. In addition, the idea of materiality in assemblages is particularly helpful, in the examination of the relationships between humans and non-humans (Hayles, 2006). An additional important element of assemblages for this research, is their instability. It is not my intention to make any generalisations as each situation is different; the entities participating in this research at a particular time and in a particular place can shift, change and move as they are not stable and for this reason, different outcomes will occur each time (Hayles, 2006). Employing assemblages for analytical reasons in this research gives me the opportunity to describe the movements, tensions and contradictions (or not) between the entities participating in an ephemeral and (un)structured environment (Marcus and Saka, 2006).

Concluding this section, I want to highlight that the contribution of both assemblage and actor-network in this research is critical because of the attention given to non-human entities. As Bennett (2004: 365) highlights, "humans are always in composition with non-humanity, never outside of a sticky web of connections or an ecology".

5.10 Research Assemblage

When designing this research, I had intended to develop a way of thinking outside of established and more traditional ways of designing and conducting research, including for example, research questions, a literature review, data collection, and analysis, yet despite already becoming influenced by ANT and NM, I was not completely able to disrupt these traditional research elements in a way that I had hoped. Drawing on New

Materialism (Coole and Frost, 2010) to move attention away from the human researcher and her epistemological concerns (Fox and Alldred, 2017) towards the relations between the components of an assemblage, I was interested to find ways to organise and structure the thesis that would allow me to think more about, and write in a way that communicates, how relations occur. For instance, I needed an approach that would allow the movements between subjects and objects, humans and non-humans to 'glow' (MacLure, 2010: 282) while avoiding falling back into an anthropocentric story. In this thesis, the aim was to avoid what Le Guin (1986) calls 'the killer story' which is represented by traditional, anthropocentric narratives of heroes and pedestals. For Le Guin (1986) it is the story that makes the difference. This research story, although composed largely of words, with some images and diagrams, it also attempts to conjure feelings, smells, tastes, memories and... and... that create powerful relationships with one another, with me as a researcher and you the reader. The relationship between these elements every time is novel because it is the story produced by the always moving and changing relations between them that makes the difference.

In a discussion about data analysis, MacLure (2013c) suggests that researchers frequently force things to stand still, creating structures in order to produce meanings out of data. DeLanda (2002) forewarns that a consequence of such a way of treating empirical materials is the sameness and the repetitiveness of established ways of thinking and producing knowledge. With the fear of producing a thesis with fixed, still and established components that force knowledge to stand still, I struggled, to think and write, constantly asking myself as a researcher, how can I move away from an anthropocentric approach and the vicious circle that keeps driving me back to the human and a more traditional process of collecting and analysing data?

This next thread discusses the ways this research has been carried out, including the 'methods', data analysis and ethics I put to work and the challenges I came across while drawing on ANT and NM.

Chapter 6

Assembling Research Methods

“We need first to understand that the human form-including human desire and all its external representations may be changing radically, and thus must be re-visioned. We need to understand that five hundred years of humanism may be coming to an end as humanism transforms itself into something that we must helplessly call post-humanism.”

(Ihab Hassan, 1977:835)

6.1 Introduction

Within this research study, the meaning-making process is understood as a result of dynamic entanglements of a variety of elements (Taylor and Ivinson, 2013). With no ‘outside’ position from where to ‘observe’, there are only a multitude of participatory elements that interact, constantly entering into and leaving encounters with one another. These elements include the ‘event’ or activity being focused on, the researcher (‘I’), the research tools, the methodology, the ethical principles, the theoretical framework, the data, the findings, the participants, the camera, the photographs, the videos, the transcripts, the computer software, the laptops, the researchers, the supervisors, the nursery, the smells, the food, the plates, the voices, the conversations, the voices, the colours, the researcher’s, the school’s and participants’ cultures and traditions, the findings, the journals, the books, the readers, to name few. For this reason, in this second section of the methodological background, emphasis is placed on all these aforementioned participatory elements in a multi-sensory ethnography in order to gain understanding about children’s relationship with food. More specifically, this section moves into an assemblage of methods and processes at work in the nursery setting, before it turns to attend to data and its analysis as a disruption to representational logic.

6.2 Multi-Sensory ethnography

Starting this section, I would like to refer very briefly to the importance of a multi-sensory ethnographic method to this research. By employing multi-sensory ethnography, I was able to engage with data such as smells, colours, bodily movements, matter, affective relations, facial expressions and the layout of objects in different spaces as participants

in the research-assemblage (Renold and Mellor, 2013). In addition, I found multi-sensory ethnography very beneficial as it enabled the capture of the messiness of the situation as well as any unstable and creative relations between the different elements participating in the research-assemblage (Stewart, 2007). Furthermore, this approach to ethnographic research provided opportunities to sense what Renold and Mellor describe as a “multi-sensory assemblage” (2013:23-41), whereby I was able to glimpse the dynamic and entangled relationships between the entities of the event under investigation, and the complexities of the affective relations between them (Renold and Mellor, 2013).

Following Renold and Mellor (2013:26) a nursery room is ‘fundamentally material and sensorial’ as it is constituted by subjects, objects and a ‘multiplicity of senses’. In such environments, visual enquiry is proved to be very beneficial (Harper, 2002; Pink, 2007). More traditional visual methodology in the 21st century, with its commitment to building relationships between theory, technology, and methods (Pink, 2012), has been used to define approaches to research that recognise the importance of the range of complex factors involved in qualitative inquiry. In a sensory ethnography, relations between the visual and other sensory elements are critical when rethinking the data (Dicks, 2014). Specifically, in the following section, I discuss the ways the ‘sensory sociality’ of eating, drinking, photographing, video recording, discussing, walking and listening with other participants can be useful in provoking and producing different kinds of ‘ethnographic knowledge’ and particular ‘types and layers of knowledge’ or/and ways of knowing. (Pink, 2008:175-176; Pink, 2012:6). Pink (2011) proposes that work in the NM that renders research an assemblage, is inextricably intertwined with multi-sensory experiences where knowledge is embedded in embodied experiences.

In this study of the early years context, I focused on the affective practices and relationships created between the bodies participating in an assemblage, including the senses (Renold and Mellor, 2013). Using audio-visual material forms of data (photographs and video) I was constantly re-developing my understandings and meaning-making processes about young children’s eating experiences in the nursery. Over time, from my initial visits to the nursery, as I had discussions with my supervisors,

read more literature and documented food-related items that came up in the news, ate meals at home in Cyprus, to the moments when I brought data together in this text(ured) account of food and eating practices, meanings were continually being re-produced, re-presented. Photographs and videos were taken as part of the process of moving around the nursery room and as I studied these, the materials themselves helped me understand how I could work with what it was in front, behind and around the audio-visual representations of events, as well as what seemed to be located 'in' them (Pink, 2013:85). Every time I went back to the photographs and videos, the memories, meanings and personal experiences of those events were brought back to me, infused with the many subsequent experiences, sensations and thoughts that had occurred since being in the nursery. In addition, during the writing phase months later, these two visual research tools were put to work in and amongst the child development, milk and methodological literature networks to evoke more-than-(ethnographic)-observations, enabling me to keep re-viewing the nursery eating experiences. Re-turning the visual tools during the analysis was particularly provocative. I found myself embodied and caught up in connections between the materials in front of me as I wrote the analysis and the moments two years earlier when these materials were generated (Inglod, 2000). When re-watching each video, my senses were stimulated, as the noise produced by the children's voices and the practitioners' talking, the smells from the food being prepared in the kitchen and then as it was being served to the children, saturated the visual reminder of those events. Hearing, smelling, tasting and touching, were all entangled in the re-watching of these small videos taken during my visits to the nursery. Even as I looked at the photographs, I felt myself simultaneously re-playing some of the videos. Although at times the video clips were not related to the event momentarily caught in the photographs, the visual assemblage managed to bring back all senses of being part of a multisensory environment.

This dis/continuity of meanings gave me the opportunity to develop a deeper sense of the way photography and videos participated in the creation of this multisensory ethnography and production of academic knowledge (Pink, 2013). At times, I particularly tried to focus on the auditory stimulation generated in the nursery room, such as the sounds, the silences, the voices, the shouting and the talking (Renold and Mellor, 2013).

The relationality developing between the audio and visual material together with other ways of knowing, formed part of the ongoing process of interrogation (Pink, 2013), which relates to Renold and Mellor's dynamic entanglements of 'material and sensorial' meaning-making (2013) in posthuman educational research.

6.3 The use of Visual Methods

Fieldwork involved a more entangled looking/sensation ('entangled more-than-observations', a method that will be discussed below) where video recordings, photographs, and informal conversations with practitioners around the room of eating were collected. Sensory research instruments such as video recording and photographs were authorised for use in this study to document a visual representation of the environment. In the following section, I will refer more specifically to the use of visual methods as research tools.

Photographs and videos offer younger children an alternative way of communicating their views. Specifically, as technology is part of our everyday life and it has become an integral element of our experiencing of the world around us, I decided to use my Smartphone to collect data, as it has the qualities to capture photographs and videos easily (Pink, 2015). As I was recording events in the nursery environment, I felt I was 'becoming' with my phone. This piece of technology is an essential part of my life, part of my identity and the way I communicate with other people (Pink, 2013). My small phone enabled me to be in and among this emerging sensory ethnography, able to tune into and share experiences of the smells and tastes that the young children engaged with on a daily basis. Arguably this helped me understand something more of the ways the children made sense of the flavours and smells introduced to them, possibly developing a more dynamically entangled understanding of the experiences the children had (Pink, 2008). Particularly, my 'phone-body' was participating in this visual and auditory assemblage with the connectivity between my fingers and the phone, my ears and the phone's sophisticated sound-capturing technology, each and together paying attention to the place and voices. My nerves sensing the phone's vibrations, my brain activity working together with the phone's (albeit limited) artificial intelligence, all offering

complex human-technological networked re-presentations of how children were feeling or/and how they were behaving around and with food. These sensory-machinic assemblages played an important role when verbal communication was lacking.

The ethnographic video fragments produced in the nursery were created in-between me, as a researcher, the phone hardware together with its software technologies and many other elements that were around during the recording (Ardévol, 2012; MacDougall, 2005). The phone worked as a social actor that somehow makes something of the lived experiences of that time accessible (on some level) to readers of this study (Ardévol, 2012). The choice of using my smartphone instead of a camera was mainly taken while trying to minimise any additional intrusion to children's sensory experience. By using my own phone, I felt more comfortable than using a camera that was not mine. Importantly using a relational approach, I recognize that my phone is already dynamically entangled with me in many ways, it is a prosthetic or more-than-human dimension to my being. As posthumanism proposes bodily existence and technology do not differ (Hayles, 1999), my phone was understood as an extension of myself, and I was an extension of the phone. Personal information embedded as algorithms, statistical and discursive data are encoded deep inside the technology, the colour and phone surfaces are worn away in places and covered in fingerprints and particles of sweat. It is an object that helps me connect with other human and non-human entities using some of the facilities it opens up to me; something that makes it even more personal and important to my life.

Thinking metaphorically about my phone as a companion, for me is 'lively' (Lupton, 2017:6, Lupton, 2016). As my phone matters to me, it has implications for my daily life as well as my embodiment in this research. This digital data assemblage which was composed by humans, data, photographs, software, device, time and ... and ... and ... affected this research's sense-making (Lupton, 2017). The vitality of my camera and the data co-produced by it, enabled me to grow and learn with them.

The use of the camera was the expression of the visual experience I had in the field (Ardévol, 2012). More specifically, being influenced by Deleuze and NM, video in this study allowed for what De Freitas (2015) suggests, is the decomposition and re-

assembling of the images captured in a place with no time and space and where everything flows. In this instance my human body was momentarily no longer seen as individual, it was dis-assembled, in order to be re-assembled with other bodies (De Freitas, 2015). The human body will always be seen in relation to the forces across the room, always open to new relations. For instance, in this study I was looking at children in a nursery in relation to the space around them, the humans around them, the smell of the food, the table clothes, the cutlery, their peers, the objects in the room, their toys and ... and... and... The use of the phone-body to video events enabled entities that were part of the network to be sensed and offered glimpses of what the outcome of the relationships between these entities could be for young children's relations with food (Renold and Mellor, 2013).

The photographs or videos were not seen in isolation but in relation to what was behind and around the camera and myself as everything (material or otherwise) becomes part of this process of investigation and gives different meanings (Pink, 2013; 2011). All these additional, or 'out-of-shot' details are documented as field notes. I was dealing with a relatively large number of pictures, reading more theory and as time was passing, I was conscious of the ways I could bring different meanings to them. Thus, as time passed these photographs shifted in relation to how I was able to understand the situation, what they meant to me. The dynamic entanglements were changing over time as new knowledge was becoming part of this process of collecting and understanding data. Becoming more familiar with NM and posthumanism as time went by, provoked me to look at the photos in different ways while trying to find an application of these non-anthropocentric theories. This time I was looking at the pictures acknowledging that both humans and non-humans are active and capable of causing something; from a change to the environment to a change of something's or someone's behaviour.

The video recordings, the photographs, and field notes have been put to work in data analysis, introducing different perspectives on the way young children experience food. They also became active components in this research assemblage and informed me about my own embodied relation with the material (Bennett, 2010), producing new and unexpected knowledge. As a researcher, I was a fully connected to the event. My hands,

eyes, ears, everything on me, including the camera, were all making connections, making the lines between subject, object and material surroundings indiscernible. As researcher, I was not solely responsible for the relations created as 'I' was always being enacted and enacting my self as a part of complex relations (Rautio, 2013).

6.4 Embodied more-than-observations

The data explored in this research, were produced through embodied more-than-observations as I was interested in 'capturing' many of the elements (human and non-human) involved when young children experience eating in a nursery. The process of 'collecting' data involved more-than more typical ethnographic observations, as links were made between the environment, my self, the smells, tables, food, photographs, phone, my fieldnotes and conversations. The relationality between the components participating in events documented in this project exceeded the information created and provided by any single photograph or/and video. That enhanced my thoughts and consideration of what lay outside of what was able to be re-presented visually as relations seemed to be more important, creating patterns for example, between children's relationship with food and their socioeconomic background, culture, and customs.

Understanding embodiment as the use of the body as "the vehicle of being in the world" (Merleau-Ponty, 1962:82), during the collection of these sensory data, the "resonance of bodies" was understood in a particular way by me, as someone dealing with data having been in the ethnographic place (Pink, 2015:145). Sharma et al. (2009), suggest emotional embodiment is important when describing and understanding senses and experiences. The way I felt in the nursery provided valuable feedback and information about the environment I was researching and about the range of participants, especially, on occasions when my feelings were confronted by language, culture, beliefs, race, age, gender, religion, and values (Sharma et al., 2009).

In the nursery I was very aware of my emotions and maybe how these related to the other participants. I was also aware of the nonverbal communication, the facial expressions and bodily movements in the room. I was aware of my identities as

researcher and as a Greek-Cypriot woman, realising that these can overlap, be multiple and complex (Sharma et al., 2009). I have also experienced the importance of different cultural backgrounds and the ways these impact on the interactions between myself and the participants, co-constructing knowledge (Sharma et al., 2009).

The more-than-observations did not begin when I first visited the nursery and did not end as soon as I left the scene. My entangled looking began a long time before I made any fieldnotes or pressed 'record' on my phone; my gaze was not innocent, executed with clarity or unbiased. It included traces of theories, experiences that had in my life that shaped the way I was understanding the situation. In addition, the more-than-observation and the informal conversations did not only 'capture' information that happened or was said during the time they were conducted. The process was continuous and lasted long after the actual real-time observation or interview, as relations between the data, the theories, myself as the researcher, the experience, the conversations and the places continue to develop and transform every time I go back to the data I have collected. For instance, although most of the entangled looking was conducted at a very early stage of this research, where evoke an expression, new materialism, and assemblages, I managed to 'capture' something of an assemblage of meanings produced by combining photographs, videos and field notes with previous and recent knowledge, historical and social events and theories (Honan, 2014).

6.5 Walking and talking: Movement, matter and mattering

In this particular research, none of the conversations were planned and no questions were prepared in advance. They were conducted with the practitioners in the setting and mostly occurred during the embodied more-than-observations, without the need to sit down while speaking. These conversations took place when I needed clarification about the processes in the nursery or to ask any specific questions about the children. The combination of conversations and other forms of participation (entangled looking etc.) helped me to bring different elements of communication, experience, and understanding into my data (Pink, 2015).

The 'walking and talking' informal conversations allowed myself and the practitioners to be more active in the dining area. I was allowing my body to be imprinted with the events happening around me and the practitioner was able to keep an eye on the children and to intervene where she felt it was necessary. The embodied movement around the nursery seemed to heighten all my senses as I tried to document something of the place around me and then combine all the materials in a sense-making process. Trying to be mindful of how all my senses were at work with other human and non-human components of the event, I managed to experience an embodied knowing-how and knowing-what while moving in-between human, non-human, matter, materiality and language. During these conversations, but also during the process of taking photographs and videos, I was present emotionally and bodily to the moment, experiencing different ways of knowing through noise, smells, voices, photographs, and . . . and . . . and . . .

As Bordo highlights, "keeping track of the practical life of our bodies is important to keeping us intellectually honest" (1997: 184). I borrow the term 'embodied intersubjectivity' from Finlay (2005:271), as it evokes the exchange of experiences between participants and the researcher, a form of empathic connection. For example, the anger of a child during a mealtime interrupted by another child, is not only an embodied response to that child who shouts and dances around the room, but it is also a response to the rest of the children and the researcher who is expected (or not) to react. These feelings, according to Holland (2007), are embodied, something that shows that bodies are entangled with previous experiences and emotions that come with them. Often in the informal conversations, materials or artefacts from the environment where the conversation took place (Pink, 2015) were used to stimulate talk. In my case, sometimes I used photographs I had taken to prompt a conversation and augment information about an incident or ask something about particular children. This method left me with a sense of co-producing knowledge with pictures rather than eliciting knowledge by just responding to questions. At the same time, practitioners in some cases had to use the resources available to them to explain their spoken words and ease our communication, especially during my first few visits to the nursery, as culturally, everything seemed so unfamiliar.

6.6 Data Analysis

After discussing the use of visual methods and sensory methodology in this research, as well as the way these helped approach data differently, in the following section I would like to extend this conversation and challenge more traditional anthropocentric approaches to analysing qualitative data. Human beings are not the starting point, nor are they at the centre of the analysis. They do not occupy a hierarchical place, but are pitched amongst other entities participating in the events presented (Hultman and Lenz Taguchi, 2010).

One of the most common methods of analysing qualitative data is thematic analysis/coding. The reason researchers might choose coding is because this process helps manage the amount of data, it can render the data docile and allow for a more systematic process of reaching conclusions (MacLure, 2013b). However, Young suggests after coding, researchers are faced with categorised data that are usually unclear, having very little to say and without “an adequate conceptual foundation” (1969:489). This is not to say that a form of coding cannot be useful in New Materialist data analysis and I will go on to examine what the challenges are with this, a little later in this chapter. The following section explores in more detail how the influence of NM deeply affected how I understood what constituted data and led to a particular approach to data analysis in this study.

6.7 New Materialisms and data analysis

In research, it is common that when tools such as observations and interviews are used, the human is identified and presented through the experiences of the researcher, his/her knowledge and his/her reflective view. However, in NM, the human becomes part of a complex entanglement of relations within the assemblage and between all entities (data, research instruments, reflections, notes etc.) (Renold and Mellor, 2013). Similarly, in NM, the focus of data analysis moves from the single human to assemblages and emphasis is placed on the capacities produced in bodies or groups of heterogeneous bodies for action, interaction, feelings, and desires through affective relations between them

(Deleuze, 1988:127).

New Materialisms' distributed focus and agentic capacities affects my understandings of how knowledge, and what knowledge gets produced. Anthropocentric approaches might assert that knowledge emerges from observations or transcripts of interviews. This approach is mainly privileging knowledge produced from the human's/researcher's perspective, while trying to make sense of the world. NM, on the other hand, suggests that as a researcher, I need to see myself in relation to the data (Coleman and Ringrose, 2013). In that way, research shapes the knowledge according to the affective relations between the methodology, the methods, the researcher, the theories, and the data.

6.8 Beyond Coding

Infected by the work of Deleuze (2004), who also influenced MacLure's writings about coding (2013c), I proposed earlier that analysis in this research needed to go beyond more traditional coding. Following St. Pierre and Jackson (2014), I recognise that meanings could easily get lost during the process of coding especially when words are translated to numbers. The dilemma is how can the focus on movement, heterogeneity, silence, desire, emotions, tears, laughs, objects, and ideas be coded? How can the relationships between language and the aforementioned elements be recorded which are part of both language and body if those are not part of the data collected or the codes?

I encounter the process of coding as highly anthropocentric; it is the human who makes choices, selects the codes and themes and makes the appropriate categorisations based on his/her agenda, beliefs and values. As a consequence, many things, often not recorded such as pauses, silences, emotions, objects influencing behaviours, actions and reactions, can be omitted from this process of categorisation. According to MacLure (2013b), the process of categorizing creates fixed relations and things become limited to the category they have been allocated to by the researcher, rendering relations between data difficult and almost impossible as they are not able to deviate. I found myself restricted by such method, as I was more interested in, and committed to, the relations between entities participating in the assemblages.

In order to see the intricacies and connections in the data, I needed to become attuned to ways to sense the complexity between the entities, the plurality of the relationships created and the outcomes of those (MacLure, 2013c). Following MacLure (2013b), coding could work in favour of qualitative researchers when they move away from traditional reduction, abstraction and generalisation of data, and replace those practices with slow familiarisation with the details hidden between the data. In this research, there is no intention to reduce the complexity of the data in order to be able to produce a particular kind of knowledge about the world of food and children. In this thesis, the analysis necessitates continuous work on research-method-assemblages while exploring the affective relations between the heterogeneous entities participating in the event.

The key imperative for data analysis in NM is the shift in focus from the ideas, the actions and the feelings of the humans to the affective relations between the entities in the assemblages and the capacities they produce (Youdell and Armstrong, 2011). More explanation about the idea of affect and the way it has been used for the analysis of the data in this study will be provided in the following section.

According to Juelskjaer (2013), methods such as interviews need to be treated not as objective representations of the world but as evidence of the way participants are situated in the assemblage. In NM, the analysis focuses more on the way affect within an assemblage links matter and meanings.

6.9 Affective data

After discussing the implications of NM on the data analysis and acknowledging the complex entanglements of relations between entities, the focus moves here to the affective relations between bodies (Taylor and Ivinson, 2013; Ringrose and Coleman, 2013). Particularly, emphasis will be placed on the way affect will be conceptualised in this study and how affective relations between bodies can be helpful in the analysis of the data that will be presented in the next two chapters.

In ANT, NM and posthumanism, objects have an 'agential' capacity to affect, rather than being understood as passive entities controlled and dependent on humans' agency consciousness and imagination (Barad, 1996:181; Coole and Frost, 2010:2). By assigning agency to non-humans, human agency is de-privileged in the production and reproduction of the world (Fox and Alldred, 2017). Affect is de-centred away from the human: "... distributed between, and can happen outside, bodies which are not exclusively human, and might incorporate technologies, things, non-human living matter, discourses" (Lorimer, 2008:552). For Fox and Alldred (2017), the conception of human and non-human agency, something that was discussed earlier in chapter 2, is now supplemented with the Spinozist notion of affect, a term which includes the embodied power of action (Deleuze, 1988). Deleuze (1988) and Deleuze and Guattari (1988) acknowledge the role of affect in human and non-human assemblages. According to Deleuze (1992:625), it is this capacity to affect and be affected by other bodies that "defines a body's individuality". In addition, for Deleuze and Guattari (1988) affect is a 'becoming' "that represents a physical, psychological, emotional or social change of state or capacities of an entity" (Massumi, 1988: xvi). In the data analysis in the following chapters, I trace affect by mapping the relations created between the entities through affective relations and then try to explore the capacities produced from those (Ringrose and Coleman, 2013).

Making the link between affect and bodies, Bruno Latour (2004) sees bodies as processes rather than entities and for this reason, in this analysis I go beyond the traditional way of thinking 'what a body is' to 'what bodies can do' (Latour, 2004) and 'what the outcome is of such processes' in an assemblage of heterogeneous entities. Therefore, different affective relations may generalise a body or a thing, creating new possibilities for what a body can do or how a body might behave or interact with other entities (Fox and Alldred, 2017). As a researcher, methodologically this offers a critical shift in my thinking away from participating entities themselves toward the way these entities are continually entangled and defined by their ability to affect and be affected by each other (Blackman and Venn, 2010).

As this research engages with human and material entities, I find affect particularly helpful in reconsidering the concept of embodiment (Blackman and Venn, 2010). Massumi (1987) argues that affect represents the capacities of an entity. Deleuze and Guattari (1988) add to that, suggesting one affect could produce a number of capacities. For example, the affective impulse to eat might cause the body to be affected in a number of ways, in interaction with rumbling stomach, it might feel particular emotions and provoke certain behaviours.

Particularly, I found the relation Massumi (1987) makes between feelings and affect interesting. In his studies, he has worked with young children whose language is not fully developed, and for this reason, I find it particularly helpful as it helps me to think about how I might draw on the children's feelings and emotions in order to identify more about their relationships with food. Following Massumi (1987), it is very important not to confuse the terms affect and feelings as they do not refer to the same thing; affect is not a personal feeling. According to Shouse (2005), feelings are personal, emotions are social and affects are pre-personal. A feeling is a sensation that is based on a previous experience, it is something personal and biographical (Shouse, 2005). Emotion is the bodily demonstration of our feelings (Shouse, 2005). Young children display emotions, which are direct expressions of affect (Shouse, 2005). According to Ekkekakis (2013), the concept of emotion is very heterogeneous, like the affective domain, as emotions include humans (e.g. to love someone), can be object free (e.g. being nervous, stressed), can be long-term (being in-love) or short-term (being scared) (Ekkekakis, 2013).

Affect, has been described by Massumi (2002) as a non-conscious experience of intensity and cannot be fully realised in language. Relating this to the kinds of affective data that might be useful when looking at young children and the relationships they develop with food, I agree with Shouse (2005) when he suggests that through expressions, gestures, posture, smells, textures, vocalisations and often few words, both the food and the young children find ways to express the intensity of the stimulations that affect them.

Massumi (1987) also argues that affect can be transmitted between bodies, with no distinction being made between the human subject and the environment (Brennan,

2004). Eating, for instance, has physical effects for some people; people can sometimes derive pleasure and/or distaste for food. These effects can be identified through observation, and then they can be described and discussed. However, those expressions, as if somehow transparent, should not be translated into fixed meanings, as the pleasure that children might seem to express at any particular moment may have nothing to do with the meanings given to the observed events, based on the children's facial and bodily expressions and gestures (Gilbert, 2004). However, meanings do matter in an analysis as every form of communication can be noticeable and it can transmit affect (Shouse, 2005), but in this research, meanings are used as a starting point for me in relation to affective and data analysis.

Zournazi (2002) in her interview with Massumi, concludes that he was not that interested in the categorical separation between affect and emotions, but more interested in the forces that are between bodies, within bodies and between bodies and the world that he suggests include the vitality of affect. Zournazi (2002) argues that the vitality to affect the world and be affected by it, are two sides of the same coin as once you affect you are open to being affected.

6.10 Intra-active data

Discussing the way affect and affective relations have been explored by NM theorists, and the ways affect is a useful concept for thinking about different kinds and expressions of data, I now want to briefly explore another concept I found helpful when focusing on data. Reflecting on the work of Karen Barad (2007), the term intra-action is key-concept used in her book 'Meeting the Universe Halfway'. Specifically, in her theory of agential realism, the world is composed of intra-acting agencies. This intra-activity is developed between, and responsible for the mutual constitution of, humans and non-humans, entities that cannot be seen as relationally distinct (Hammarström, 2010). Barad (2007) proposes that intra-actions between our bodies (living and non-living) produce enactments allowing the active role of material in the process of analysis (Mazzei, 2013).

According to Hammarström (2010), it is this relational intra-activity between the entities that constitutes reality and defines subject and object. Data, whether that is children, me as a researcher, food, smells as well as objects are produced through our entangled intra-actions with everything around us (Lenz Taguchi, 2010). During data 'collection' in the nursery and later during the analysis of that data, I realised that thinking through the body does not provide enough information about what happens outside of it, especially when it comes to relationships with other entities (Braidotti, 2002). However, when I began to understand data in intra-active relationship with my body (Braidotti, 2002), bodies, materials and matter became much less clearly discernable as in/outside entities. My own and the participants' subjectivity were constituted in the intra-actions with the materiality of how the environment affects, and at the same time, is affected by us, something that kept producing different encounters and engagements with the data and different analyses (Mazzei, 2013).

Concluding this section, intra-active and affective dimensions of data were considered while preparing for, and then writing this piece of work. These different relational dimensions afford movements so that different questions could be asked of the data (Rozynski, 2015). During the data analysis chapters that follow, I work with a process of diffractive data analysis that draws affective and intra-active notions of data into assemblages as generative sources of thoughts, questions, agentic capacities, ideas and sensations, that incorporate both human and non-human relations within the research-assemblage (Fox and Alldred, 2014;2015).

6.11 Ethics

Ethics are traditionally related to notions of how well participants are treated (Burman, 1992; Gillies and Alldred, 2012). However, in feminism, ethics seem to be divided to those that address issues having to do with the research practice such as honesty, consent, anonymity; and those that are related to the ethics of knowledge production (Gillies and Alldred, 2012; Doucet and Mauthner, 2012). With the term knowledge production, Burman (1992) refers to the political role in research findings or to the extent of relations created by the knowledge claims.

Particularly, Code (1995), in her work uses the terms 'knowing well', 'knowing responsibly' and 'epistemic responsibility', in order to show the importance, responsibility and power people who are involved with knowledge production have and the influence they can have on the audience/readers (Code, 1995:14). Doucet and Mauthner, (2012) argue that people such as researchers and philosophers, are ethically responsible to those for whom knowledge is produced as well as to those who are involved in the production of theory, knowledge, and policy. Being epistemically responsible is crucial in research as it always has implications for people's social and political lives. Consequently, researchers need to make sure that they know well what they are doing and what they intend to achieve through their work (Code, 1987).

Although the above conversation about ethics in research is useful as a starting point, in studies where the main aim is to de-centred the human, I realise the need to extend this conversation and go beyond human-centric ethics. To do that, I have drawn on non-anthropocentric ethics, such as feminist New Materialist and posthuman ethics, where researchers continually challenge the assumption of a proper boundary between agency and humans, humans and non-humans, ethics and politics, autonomy and dependence (Åsberg, 2013).

More specifically, in feminist NM ethics, Barad's (2007:90) 'ethico-onto-epistemology', gestures at the inseparability of ethics, ontology and epistemology, as well as the world, humans and non-humans. In this study emphasis was placed on the entanglements of all the elements as they all matter; although, sometimes some of them might matter in different ways to others (Fenwick et al., 2011).

More specifically, in the analysis of this research project, it will be apparent how I tried hard to engage with 'non-ideal' entities in 'less-than-ideal' environments. Barad's model of an 'ethics of entanglement' helped me sense the ethical challenges and demands of this research (Barad, 2011:150). Following Barad's (2010:265) idea that "[e]ntanglements are relations of obligation", I realised that my ethical debt to the 'other' and the 'different' is inextricably related to the world. By re-focusing on materiality and the way matter affects and is affected, the ethics of 'becoming' occurred in relation to others and

in relation to matter and meaning, with a heightened respect for, and acknowledgement of all matters (Taylor and Iverson, 2013).

At the same time, this respect incurs 'response-ability' (Haraway, 2008: 88; Barad, 2012: 208), the ability to respond to the other which is not limited to humans (Geerts, 2016). Barad (2007; 2014) also argues that this other comes within intra-actions and it exists between the world and its beings. In this relational world, ethics, being and knowing cannot be separated (Barad, 2007).

A more traditional set of ethical dilemmas in research relate to the issues of transparency and power when securing participants anonymity and confidentiality (Gillies and Alldred, 2012). Transparency is largely concerned with the rights and the wrongs of collecting data, while protecting the rights of the participants (Gillies and Alldred, 2012). This relates to the moral deliberation of the research process (Edwards and Mauthner, 2012), often regulated and scrutinized by a range of institutions. Each academic institution for example has its own committee, which is responsible for assessing research proposals and making sure each piece of research undertaken under the name of their institution is ethical. Of particular importance in ethics are sensitive issues of power, for example working with 'vulnerable' people such as young children, as well as issues such as race, class, religion, disability etc. (BERA, 2011; Edwards and Mauthner, 2012). This aspect of ethics acknowledges that research is a deeply political rather than neutral process (Gillies and Alldred, 2012). It is preoccupied with the diversity of the world, raising awareness of the importance of defining the social world in a more equitable way (Edwards and Glover, 2001).

Ethical approval is one of the machines of this research assemblage and its aim is to protect human and non-humans from any negative impacts of the research project (Fox and Alldred, 2017). Although this study set out to explore the challenges and affordances of Barad's New Materialist ethico-onto-epistemology, it also needed to engage with what might be considered more traditional ethical protocols. For example, I ensured I had informed consent from the nursery setting and the parents (Appendix VI). All participants were informed about the project, what it would entail and how their identities would be

protected via confidentiality and anonymity either through the information letter and consent forms, with time put aside for asking questions before conducting the research (BERA, 2011) or through conversations with the children in the nursery. Real names are not presented in the data in both 'raw' and analysed versions. Additionally, no information and details that could possibly reveal the identity of the school or participants are included in this thesis (BERA, 2011). All data was kept securely in manual and electronic formats and no one except me had access to them. Photographs and videos were stored safely and securely onto a hard drive. After 'capturing' the images, I uploaded them as soon as possible onto a hard drive and kept them protected at home with the use of a password. Throughout my time in the nursery, I also collected some fieldnotes, including the exchange of words or conversations between the children, between the children and the practitioners, and between the children or practitioners and myself. These notes were written on a notepad and then transcribed onto my hard drive with the photographs and videos and stored away safely. All data will be kept until the end of August 2020 and until this time they will remain on a hard drive, in a locked drawer in my house that only I will have access to.

I thought it was ethically important to return to the nursery after the writing up phase. I arranged a day where I re-visited the setting to meet up with the children again, share with them some of the pictures I collected from their nursery and discuss with them the many interesting aspects of mealtime. I also met with the staff from the nursery to discuss with them some of the outcomes of this research (more information can be found in Appendix VII).

6.12 Fieldwork and the choice of data

The data that will be interrogated in the two following analysis chapters, comes from a preschool centre located in an area of Manchester, England, which is known to have high levels of poverty and where the majority of the children attending are entitled to a free midday meal. Snack time is served at 10:20 and lunch is served every day at 12 p.m. Two events have been chosen because they offer a unique opportunity to study children's relationships with food whilst exploring the complexities between the human and non-

human entities participating in those relationships. The 'wonder' that drew me into the two events, produced a curiosity and fascination in the entangled relation between myself and the data (MacLure, 2013b). These stories were chosen because of the capacity they had to generate further thoughts, feelings and emotions in relation to the theoretical and methodological framework used in this study. At the time when I was looking at all the pictures I had collected, I was overwhelmed by a sense of wonder that circulated around some of the images in particular. I kept re-turning these photographs, perhaps because of the strangeness of the events 'captured'; of the affects and emotions that seem to captivate attention; or of a sense of the not-yet-known or unknown in what might be 'hidden' in/outside or behind these particular stories (MacLure, 2013b). Using a materialist terminology, wonder can be also seen similar to 'intra-action' (Barad, 2007), as it is a desire that connects bodies in an assemblage. This desire is relational and mutual; when a researcher is drawn to something in data, then that data has chosen the researcher, a mutual affection between the data and the researcher occurs, a sense of wonder that is still not clear in terms of where it is coming from (MacLure, 2013b). I felt that this sense of wonder allowed data to be relational and not static and structured, as it gave them the freedom to be flexible and make connections with a variety of ideas, theories, and experiences,

6.13 Summary

To undertake this research, I have drawn on a variety of theories, philosophies and methodologies, such as post-qualitative research, including Feminist New Materialisms, Posthumanism, Actor Network Theory, Deleuzian transcendental empiricism and Feminist Ethics. All these strands evoke the decentralisation of the 'I' and the making of relations in common (Taylor and Ivinson, 2013). Within this research, posthumanism is used to challenge any anthropocentric tendencies and leanings to human exceptionalism and post-qualitative research is put to work to challenge the more traditional methodologies and methods that focus on anthropocentric ways of collecting and analysing data (Taylor and Ivinson, 2013). Hultman and Lenz Taguchi (2010) refer to this new way of thinking, where subjects are not the main focus of an analysis but researchers consider both subjects and objects in the co-production of agency, as 'flattening'. In a

flattened ontological approach, there is no hierarchy as theory, data, participants, and researchers are all seen together having equal capacities in the process of the knowledge production (Hultman and Lenz Taguchi, 2010).

The work of Deleuze and Guattari was particularly helpful in re-thinking the entire research process, emphasising the relationships between theory and methodology (Coleman and Ringrose, 2013). Furthermore, the visual ethnography allowed me to explore new ways of mapping, seeing and attending to events through my senses, such as sounds, smells, and touch while enabling a multi-sensory way of encountering and engaging with information about the issue under investigation (Renold and Mellor, 2013). Through a multi-sensory ethnography, I have not aimed to re-produce or re-present an 'objective' reality identical to the embodied and sensory experience of eating in the nursery school. I have tried to evoke an expression of my own growing sense of the complexity of vibrating and networked assemblages of vast entities that somehow resonate with my conscious understandings (Cohen and Rapport, 1995; Pink, 2013). More specifically, in the next two chapters, the data analysis is afforded by material/discursive and diffractive readings of two eating events that took place between young children, practitioners, me (researcher), physical space, a camera-phone, smells, sounds, and a number of other human and non-human bodies.

Chapter 7

Becoming monster

“... to go according to nature is only to go according to our intelligence, as far as it can follow and as far as we can see; what is beyond is monstrous and disordered. Now by this reckoning, to the most knowing and ablest men [sic] everything will therefore be monstrous....”
(Montaigne, 1957:391)

7.1 Introduction

This analysis is driven by a desire to perceive children as incomplete, going beyond ideas emerging from Western logic. Such adultomorphic logic seems to limit how a child's experiences, reactions, behaviours or thoughts about what she can become are understood (Gill-Peterson, 2013). This first analysis chapter draws on the work of Deleuze and Guattari (1972; 1987) and the notions of becoming, difference and assemblage to help me re-think how a child, experiencing the limits of her own body (Lenz Taguchi et al., 2016) and finding her self affectively entangled with food and other entities, might shift my readings of our encounters with one another.

Concepts such as becoming and assemblage are useful when thinking about children's relationships with food in relation to 'difference' in the nursery setting, produced between bodies, overcoming individuality, and the becoming-social bodies (Sherbine, 2016). I understand 'difference' as produced in young children's encounters with the nursery setting, mealtime, food smells, textures, fork, knives, toys, tables, chairs, emotions, education, training, singing, recording and writing and... and... and... In the process of thinking with becoming, difference and assemblage, I hope to be able to consider the multiple transformations the children might go through when they engage with other bodies and materials.

Deleuze and Guattari (1972) might suggest young children are active participants in their own genesis. Genesis has its origins in the Greek term γίνομαι, which means 'become'. Therefore, children are active participants in becoming something else, something more, and this something is not limited to being a boy, a girl, an adult, a well-behaved pupil, a

good eater or any other labels we, as adults, choose to give to children. In this analysis, I aim to challenge the idea that children should be expected to grow 'up' to become a particular kind of child, and then adult, being able to eat, talk and behave more generally within identifiable social norms. Using the term 'adulthood', which I borrow from Deleuze and Guattari (1972), I want to try and move away from this idea of the standard metric for the universal human. Adulthood is further compounded by the normative and individualising discourses that filter down from the systems of reason embodied in educational policy (Lindblad and Popkewitz, 2001). It is important to dismantle such linear and logical ways of thinking, as currently it seems we remain trapped in a vicious circle where children can only be seen and thought about in comparison to adults (Gill-Peterson, 2013). I would argue that we need to perceive children in relation to the environment around them and describe them on their own terms (Gill-Peterson, 2013).

7.2 Diffractive Analysis

Before moving to the data, this section will discuss diffractive analysis, as this is significant to the following two chapters. In this research and specifically in the analysis of two eating stories, I have attempted to engage with different ways of seeing and thinking with data in educational research while using video, photographs, and words. In this more materially-engaged process of analysis, the aim is to think how the research event is composed of both human and non-human elements without privileging one over the other (Mazzei, 2013). I aimed to think, write, feel and try to sense something different with data, with food and its literature network, with smell, children, and theory.

I am composed by, and I am composing data while being made and unmade through this process of 're-turning' (Barad, 2014:168) theories, theorists and concepts (Mazzei, 2013). With the term 're-turning', I aim to do what Barad (2014:168) describes as making a turn over and over again in order to make something new, to find new patterns by intra-acting and re-diffracting, terms that will be explained and discussed during this and the following chapter. I am not proposing here that 'reflection' and 'diffraction' are in opposition, or that the one is better than the other. However, these two approaches highlight different "patterns, optics, geometries that often overlap in practice" (Barad,

2014:168). In these chapters I will experiment with a diffractive analysis of a particular food event; mealtime, whereby food is considered from a range of perspectives, including the role of place in its consumption, its value, and importance, as well as food's symbolic, relational and affective character.

The embodied more-than-observations (sometimes speculative) of the intra-actions always developing between human and non-human elements, re-turn the research process as being always emergent and intra-active. As discussed in the methodology, this intra-activity is developed by a mutual constitution of humans and non-human data within this research assemblage, as no entity can exist as individual elements but only as relational (Hammarström, 2010; 2015). As integral to the assemblage and the mealtime event, I see myself and all participants (humans and non-humans) being produced through intra-actions, becoming something different from what we were before (Davies, 2014). Latour (1988) talks of 'infra-reflection', a suggestion that reflection should always be done from an internal point of view and not from an external with the individual isolated from the event. As Deleuze and Guattari (1994) argue, it is always something that makes us think, there is always a stimulus that forces us to think. This can be any object or subject and it is always so important as it takes place in-between heterogeneous components rather than being something isolated (Hultman and Lenz Taguchi, 2010).

According to Davies (2014), when undertaking research, researcher(s) and participants are seen as multiplicities and there is an interdependent relationship between knowing and being, becoming a diffractive methodology.

“The concept of diffraction replaces the more usual concept and practice in qualitative research of reflexivity. [...] Diffraction does not reflect an image of what is already there but is actually involved in its ongoing production. [...] Whereas reflection and reflexivity might document difference, diffraction is itself the process where difference is made” (Davies, 2014:2).

The need to move away from reflexivity is explained by Barad (2007:87) who highlights that reflexivity “still holds the world at distance” as the researcher needs to take a step

back and reflect on the event. Therefore, the knower and the known are still at a distance and “cannot bridge the epistemological gap between the knower and the known” (Barad, 2007:88). Hultman and Lenz Taguchi (2010) suggest a relational materialist perspective when it comes to thinking and reflecting, a relational perspective that allows us to inter-connect with something.

The next section brings the concept of diffraction, together with the threads, knots and entanglements of the food networks in chapters 3 and 4 to move into some data. This assemblage opens up ideas that challenge what constitutes the boundaries of ‘normal behaviour’ and questions the very category ‘human’ in and amongst a complex eating event. I begin by introducing some furniture, together with a few three and four-year-old children as they are gathering in a nursery room to have lunch.

7.3 Dinner time

When it is time for food to be served, tables are being pushed together and covered with a tablecloth. All the wooden chairs are set around the tables. The children are not expected to sit in specific seats, but they are expected to sit around particular tables, under the supervision of one or two practitioners. On the tables, there is nothing else apart from the green and white checked tablecloths.

A little while later the children come into the dining area and are asked to take their seats. The room starts to become alive, full of children’s voices. Children are sitting at tables with practitioners serving them and helping them throughout the mealtime. The plates are given to the children with the food of the day, which on this day is lasagne and vegetables. The meal is served in individual portions to each child on a ceramic white plate with a glass, fork and knife.

In the room, there is a lot of noise; children talking, shouting. I can hear forks and knives moving, scraping against plates when children are eating. Some children start eating immediately and some others are looking at the food

for a little while before they connect their body part with it, such as using with their hands the fork and knife. There is a strong smell of hot food, quite indistinct, but food-like. If I had my eyes closed it would be easy to figure out where I was located; every sound and the smells gesture towards eating activities.

I am drawn to a little girl (referred to as Mary) who is looking at her plate and shouting: 'I don't like it; I don't want to eat it!'. The practitioner moves closer to her and says: 'Try it first, but you don't have to eat it if you don't want it'. Although Mary remains seated for a few more minutes her disappointment with the food and her unwillingness to eat is visible in her facial and bodily expressions. During the whole time, no effort is made to eat or even touch the knife and fork that are placed next to her plate. Mary is making a lot of noise, shouting loudly as she makes gestures, touching her face and hair.

At this stage my entanglement in this assemblage draws in visual, auditory and tactile bodily intra-relationalities, as the event becomes co-produced (Otterstad and Waterhouse, 2016), somewhere between my self, the place, the child, the food, the practitioner, the camera, the feelings, and ... and... and ... In the first instance, I am drawn to a human, particularly, the practitioner who is approaching Mary, composed not as an individual, but in relation to Mary, as well as the food, the smells, discourses around being docile, conforming and ... and ... and ...her becoming. Everything about the practitioner's voice and bodily gestures remind me of someone powerful – the stark differences in size and shape between her and Mary were obvious; the tone of voice was haughty, suggesting superiority but at the same time with a tone of calmness. Her whole body was hovering over the girl's body, her face almost touching Mary's face.

In the data, although the practitioner is offering encouragement and support, her actions are simultaneously tinged with a sinister and menacing physical domination of Mary. As

she crowds the child's body, leaving little space for resistance, the food assemblage gathers momentum around and out of the intensity of this moment.



The contrast of physical size takes me to thoughts of a ventriloquist handling her 'dummy', controlling her movements, voice, expressions. In that moment, the practitioner is using her hands and arms to move the plate of food towards Mary, who wants to push it away. Indirectly, the ventriloquist is controlling Mary's body, head, limbs, and perhaps even the girl's feelings, mouth and eyes.

The practitioner in this context is a physical reminder of the healthy eating guidelines that dominate, overpower and control practitioners, children and families. Re-turning the food network presented in the literature, the guidelines and other training messages seep through the body, behaviour and words of this practitioner, saturating the data assemblage as she tries to coax Mary to try her food. The political and economic actors at work in child development narratives explored in chapter 3 are threaded into her responses to Mary, shaped by the nursery policies and practices and affecting her ideas and perceptions about food and eating. Was she worrying about the lack of nutritional intake for Mary, if she refuses to eat?



Re-turning the imperative behind the 'two-year-old offer', the practitioner's role necessitates equal opportunities are afforded to all children, including the promotion of good nutrition and encouragement of healthy eating habits. Does this add pressure on the practitioner to make sure that all children enjoy mealtime without any disruptions? Both the practitioner and Mary are not singular entities, but as Murriss (2016) suggests, they are deeply entangled with social, political, cultural and biological forces at work in this data assemblage.

Deleuze and Guattari (1988:4) see assemblages as 'machines' that bring elements together and link them in a way to produce something. Assemblages are not fixed, but always in movement as their components are able to change and flow inside and outside to form/join other assemblages. Being in a process of constant change and reforming, makes the concept of assemblage uncertain, as it always depends on new engagements, relationships and flows happening between the components that comprise it (Sherbine, 2016).

The photograph from the nursery above, as well as additional photographs of this data event (see Appendix III), gather together (from the past, present and future) elements and traces that gesture at how complex this assemblage is, with many heterogeneous entities participating in the eating event, including, for example, the practitioner who is arguably enacting what has filtered down from her own training background around 'healthy' child development; the messages from the DfE and DoH in relation to children's early eating habits; academic literature around relationships between socioeconomic deprivation and health, healthy eating and academic achievement; the nursery's healthy eating policy; the EYFS, as well as other participating entities such as the children sitting around the table, the plates with food, the cutlery, chairs, and the jar with the water in, a room full of pictures, colours, smells, drawings, crafts, clothes for dressing up, aprons, crayons, papers, and ... and ... and ... Something in this photograph re-turns my lived experience of this event, the past folded into the present moment of re-looking, where children are sitting together, most of them enthusiastic about the food just arriving, voices, lips, hands, saliva, eyes, noses, tongues, playing active roles in this moment where all senses were participating, informing each other, capturing the fullness and richness

of this eating event. I am struck by the multiplicity of materials and matter moving together as an event, constituted by all the components in continuous flow with one another (Deleuze, 1990b). Within these complexities, instabilities and movements in the nursery setting during mealtime, the practitioner is seeking some sense of order and conformity by trying to understand how Mary's assemblage shapes and changes around food - how these changes within her assemblage could produce a 'good eater' or a 'fussy eater' child.

As it was noted earlier, the aim of this section is to go beyond binary and linear accounts where notions such as 'good eater' come into play when a child sits calmly and quietly at the table, waits patiently and says thank you after being served the food, eats well and finishes all his/her food, whereas a 'fussy eater' would not be willing to sit and wait for her food, would not respond to encouragement to return to the table and refuse to try new and different flavours. To do this, the concepts of 'becoming' and 'difference' seems particularly helpful in opening up the food assemblage, which according to the Deleuzian thought, is multiplicitous (Youngblood Jackson, 2010). More specifically, the challenge here is to encounter Mary's assemblage as part of a much broader and more complex eating event, unfolding as it interacts with other heterogeneous entities.

Mary is a girl who seems to behave, move her body and express her desires in a specific way, with interestingly 'concrete forms' that make up her becoming (Badiou, 2007:40). In some situations, when food enters the body, then it becomes part of it and it is not visible anymore from the outside (Rossholt, 2012). However, some children, like Mary in this case, who do not eat their food, are still embodied by/with food, not through their mouth or stomachs, but through their eyes, by looking, and their noses, by smelling (Rossholt, 2012). Food seems to create boundaries around some children as they embody food in one way or another. Children are active participants in their material production, in this event Mary is produced in-between her own body, her senses and the food (Rossholt, 2012). In this example, materiality seems to be influencing discourses of eating as embodied flows of affect overwhelm the moment (Rossholt, 2009). Additionally, as the researcher, my body is still vibrating having been touched by this event, it is embodied in my memory and my memory is embodied in the event, caught up and threaded into pictures, videos and field notes.

I am intrigued by the concept of becoming, as the aim here is to examine the continuous changes happening to Mary's assemblage, which includes the practitioner, the hot food, and other entities, especially during this mealtime in the nursery. This way of thinking about change is more relational and less linear and developmental as it 'concerns alliance' between the entities participating in an assemblage (Deleuze and Guattari, 1987:239). 'Becoming' forces social identities to move beyond traditional dualisms such as mind/body, nourished/under-nourished, adult/child, fussy/good, human/non-human as no one identity is separate, inferior or superior to the other (Deleuze and Guattari, 1987). More specifically, for Deleuze, becoming is a process of change involving interactions and transformations between heterogeneous bodies and materials coming together to develop new relations (Youngblood Jackson, 2013). In this process of data analysis, becoming and assemblage allow the data to be more open, enabling me to examine "the possibilities of becoming something else" (Sotirin, 2011:117).

According to Dolphijn (2004), it is impossible to find if an event ever stops, yet interestingly, following Massumi (1992), in the process of becoming, during connections between heterogeneous components, "explosions" occur, rendering new creations that are always in movement (Youngblood Jackson, 2013:122). This relates to Deleuze's (1978) belief that the body is never static, but always in process. Interestingly for this study, Deleuze (1978) and Deleuze and Guattari (1987) are interested in what a body can do rather than what a body is, acknowledging a body as being flexible to become something else without putting restrictions on a body's capacities and capabilities. Massumi goes on to remind us, however, that even the something new that is produced is never complete as it is always in progress and transformation as it becomes (Massumi, 1992; Jenks, 1996).



Figure 6 School mealttime assemblage

As I re-turn the photograph of Mary above, I realise bodies are always changing, in movement and flow, even though I may perceive events as knowable and static. Hickey-Moody et al., (2007:6) suggest that becoming is composed of “both human and non-human affective entities that create opportunities to perceive, move, think, and feel in new ways”.

7.4 Becoming 'Monster'

When I next look at Mary, her body is lying back in her chair, looking like she may topple over onto the floor at any moment. Her body keeps moving all the time. Mary's fists are clenched and she brings them closer to her face, a movement that could gesture to becoming-monster. Mary turns to face the girl sitting next to her (Anna) who is eating. She pulls a number of facial expressions, trying to get her attention. Then Anna's eyes turn to Mary while her body starts imitating Mary's behaviour, recreating the same gestures and noises.



'Pale Man' from Guillermo del Toro's Pan's Labyrinth

Sherbine (2016) claims that young children move, think, feel, and experiment in order to be able to go beyond bodily limits to new experiences and new modes of existence; something that changes them as bodies. When talking about 'difference' in the context of becoming, it is not about becoming something different to what we are but to create new experiences and develop and enrich who we are (Crockett, 2013; Hughes, 2009).

The practitioner asks that the girls continue eating their food and quieten down. The practitioner's words are ignored and the girls repeat their gestures and noises. Very quickly Mary's behaviour is becoming the centre of attention. She stands up and makes her way to the toilet, but without using it, her feet take her back to the dining area. She is dancing, jumping and shouting causing even more noise. No one seems to respond to her behaviour, only a few children look at her and then she returns to her table. The practitioner asks her to be quiet, but Mary's spinning movements and singing make it clear that she is not listening. After a while, Mary's behaviour interrupts Anna again. She stands up and starts jumping. The practitioner gestures to the girls to sit down, Anna laughs, jumps, dances, expressing a sense of satisfaction and enjoyment.

The idea of going beyond bodily limits catches my attention here, as Mary and Anna go beyond what is expected of their bodies at the table. A number of child development threads tug at me here, as I am reminded of the agency, rights and voice afforded to the young child in postmodern studies of childhood, in some ways supported by their predominance in policies, welfare, medical and educational institutions in the UK (Prout and James, 1997a:1), but also compromised by a 21st century education system that practices an age and stage unfolding sense of expected cognitive and emotional conformity and body docility. Mary and Anna seem to resist being docile and instead, use their faces, arms, hands, fingers, chairs and food to express something more than being compliant. I am intrigued to find out more about how Mary's human body unravels in its encounters with different assemblages, forcing interruptions to the category 'good eater'. As Gilbert (2004) argues, individual expressions should not be given meanings, as the excitement or the struggle a child expresses at any particular minute could have nothing to do with the food solely, but with an assemblage of subjects and objects. However, as suggested in the methodology, meanings can be attempted by researchers, something that happens in this analysis where they serve as a starting point for thinking (Shouse, 2005).

Shildrick (1996) explores the 'other' that falls out from the human and an anthropocentric framework of understanding. According to Shildrick (1996), monsters are the 'other' of the humanist subject. This 'other' needs to be excluded as it is defined by the lack of sameness. This 'other', is described as the one that needs to be controlled as it is usually 'unruly' and 'deeply disruptive and uncontrollable' and seems to be the one that has 'leaky boundaries' (Shildrick, 1996:1). Arguably the unruly and disruptive smells, sight and textures of the lasagna, set in motion by leaky feelings of discomfort towards the plated spectacle, this food allows me to see the otherness in this complex assemblage.

In addition, the words 'leaky' and 'unruly' can be also used to describe Mary's assemblage, which seems to be 'leaking' of emotions and feelings about this mealtime. She appears to be very energetic, she is making noise expressing her possible anger, she might also be conscious of me watching her throughout the time. The becoming monster assemblage is also 'unruly' as there is no conforming to rules during this mealtime (Shildrick, 1996). Mary within her assemblage of becoming with the food, she appears to be spinning around, singing, not listening, laughing, jumping, dancing, running and making lots of noise. This behaviour might indicate a wildness as she is not able to be docile, compliant and eating. Her actions are not compatible with what the practitioners aim to do and the way they planned this mealtime to work. This becoming-monster assemblage seems to be uncontrollable and it is 'deeply disruptive' to me, to the practitioner and to some of the other children in the room (Shildrick, 1996:2). This becoming-monster assemblage represents something of the otherness in relation to what the practitioners and the policies want to promote during mealtime in a nursery. This assemblage works as a threat to the 'putative norm' (Shildrick, 1996:3).

Re-turning Hickey-Moody et al. the data above suggests the becoming-monster assemblage is gathering pace, composed of leaking bodies, together with interesting combinations of words, noises, fidgety feet, oozing emotions, shouting, wild spinning, repetitive jumping, dancing movements, singing, tables, laughter, as the flows force the different affective human and non-human entities to "move, think, and feel in new ways" (2007:6). There are untamed energies and disorderliness in circulation. Offering an

alternative to straightforward readings that might infer Mary's reaction to a refusal of the food because she is a 'fussy eater', or, that she is yet to appreciate the social and cultural etiquette that surrounds eating routines and rituals in nursery, hence her 'inappropriate' behaviour throughout the mealtime, I turn to a helpful concept. The *monster* helps me to oppose "the epistemological, ontological and ethical paradigms of reason" (Shildrick, 1996: 2) embedded in educational policy and healthy eating agendas.



Figure 7 Artist Unknown

The term *monster* can be used to refer to a rude or badly behaved child. However, to steer the focus of this analysis away from the child and instead, stir the idea of 'becoming-monster' into a more complexly flowing assemblage, the events observed in the nursery gesture to what lies outside 'normal', what troubles the boundaries of the human figure whilst forcing new thought about the food and its relationship with the child. I want to find ways to understand more about becoming-monster and the "unpresentable otherness" (Shildrick, 1996:3) of the eating assemblage.

Modern life and popular culture are full of superheroes, action figures, witches, vampires, werewolves, wizards and ghosts who have supernatural powers and look

frightening, creepy and intimidating, reminding us of monsters described in the traditional literature (Thanem, 2006; Cottom, 1980). Interestingly, t-shirts for young children (especially boys) abound with *'Mummy's little monster'* emblazoned across the front. The meanings of the terms monster or monstrosity comes from the Latin *monstrum*, which means portent, omen or sign. It is also relevant to *monstrare*, meaning to show, demonstrate or prove (Munro, 2001). In The New Oxford Dictionary of English, a monster is described as a thing, animal or imaginary creature that is typically large, ugly, and frightening imaginary creature, an inhumanly cruel or wicked person.

Post-structuralist, deconstructivists and feminist theorists are interested in the 'monstrous body' emphasising its disruptive and deconstructing potential (Steinhoff, 2015). By exploring the monstrous body, they highlight not only the (re)production of cultural norms but also the destabilisation of the cultural norms (Steinhoff, 2015). In Donna Haraway's work (1990: 1991) monstrosity takes the shape of a posthuman (the figure of the cyborg) and in the work of Judith Halberstam, posthuman monstrosity is described as messy and queer (1995: 188). Margrit Shildrick (1999: 91) sees "monsters as helpful, the potential site of not just a reconceived ontology, but a new form of ethics". In one of her later works, Shildrick (2002), seeks to embody the monster and through her work she offers an alternative way of rethinking normality as she describes it as "uncontainable and unknowable" (Thanem, 2006:181).

In an attempt to start thinking differently, I find myself becoming not only with the data as a researcher (Haraway, 1997; Barad, 2007), but also with the camera, the pictures, the videos, the smells, the food, the children, the healthy eating policy, my cultural background, religion, my personal views and upbringings while being entangled with senses (taste, smell, visual, noises, touch). In addition, in this diffractive analysis, my body is allowed to become an open-ended system while interacting with the environment, something that benefited the experience of new relations and affections. In this transcorporeal process (Lenz Taguchi, 2012:265), I see myself relating to the monster, not only located within a body but as a way to evoke menacing concepts such as alterity, liminality and unknowable differences (Bloomfield and Vurdubakis, 1999). I am affected and I affect at the same time the becoming monster assemblage.

A 'becoming-monster' assemblage can produce dis-order, interfering with the order of mealtime, inserting an 'oppositional consciousness' (Braidotti, 2008: 1) into the heart of the debate on healthy eating. In addition, it allows researchers, readers and practitioners to ask different questions about food in a relational encounter with 'other' in early years settings as they try to see things from an-other perspective and an-other angle.

Monstrosity has begun to irrupt into the nursery space as smells infiltrate the atmosphere, moving through the air, particles create formless, distasteful, organic and lifeless mounds on the plate. Odours are carried into bodies that refuse to be docile, rejecting a call to language, affective responses are stirred, liveliness is provoked. The actions of otherness break away, the molecular minoritarian in movement. Monsters, according to Thanem (2006), are associated with this idea of disrupting boundaries, overcoming margins to experience life on edges, representing otherness.

On that day Mary could have been described as being stubborn, mischievous, a little monster as she refuses to sit down and taste her hot lunch, being uncontrollable, showing an excessive difference and an intolerable ambiguity (Grosz, 1996). There was a continuous battle between tasting and dis-tasting, like behaving and misbehaving. Drawing on the earlier eating sensorium and class actors, examined in the literature (chapters 3 and 4), Ollivier and Fridman, (2001) argue that taste is something complicated as it includes attitudes, preferences, manners, know-how, and educational credentials. Refusing to taste her food, she appears strong and resistant, all at once energetic, full of playfulness, active, teasing, adventurous, curious, messy, smart, dominant, fussy, opinionated, bubbly, unknowable and uncontrollable. In these moments, this body represents something of childhood that is different to what may be expected or knowable. Sherbine (2016) suggests that images of childhood are produced by molar lines, which according to Deleuzeguattarian thought, work as organisers of ways of being. According to Braidotti (2011:42), the idea of molar "is concerned with being, identity, fixity, and potestas", providing codes so "that bodies, materials and ideas become recognizable", for example, 'good eater', 'docile, healthy body'.

However, Mary's body confuses me, inhabiting different roles at the same time, the fiendish 'fussy eater', appearing in a dys-functional state (Thanem, 2006), already leaking from her young body that is always in preparation for school readiness, "...as yet unknown, neither friend nor enemy, growing inside [her] own flesh and blood" (Betterton, 2006: 81). I was unprepared for what I encountered. The becoming-monster assemblage, allows a much less stable becoming, a fluid process that includes changes, interactions and transformations that work to develop different, molecular lines (Youngblood Jackson, 2010:582) between food, Mary's body, smells, textures, memories, practitioner attitudes, policies, and ... and ... and ... In this particular event the actions produced when the food assemblage encounters Mary's assemblage, suggest that the process and act of eating might be more problematic and complex than initially thought, making becoming even more monstrous as the bodies themselves appear to be causing interruption of the 'ordinary' (Thanem, 2006). As Youngblood Jackson (2010:581) argues, becoming is a state of being "in-between, being in-between multiplicities, where affect and desire flow in the production of new assemblages and new experiences", in this instance, for becoming-child, becoming-girl, and becoming-monster. This otherness represents "the in-between, the mixed, the ambivalent as implied in the ancient Greek root of the word monsters [τέρας] 'teras', which means both horrible and wonderful, object of aberration and adoration..." (Braidotti, 1994:77). The becoming-monster child-food assemblage forces Mary's assemblage (the image of the child) to become at once "familiar and strange, naive and knowing, transparent and inscrutable, docile and dangerous, innocent and guilty" (Bruhm and Hurley, 2004: 153).

The practitioner threatens, 'If you are not listening you are not doing the activities later... if you are not a good listener, I will have to think...'. Mary and Anna eventually return to the table and sit down. They agree to remain seated while the practitioner brings the dessert to the table. However, once the practitioner's back is turned, both girls stand up at the table and once again, their legs become active, running around and making lots of noise in the dining area. The practitioner goes over to take their hands and lead them to the table so they can eat their dessert. The rest of the children's bodies remain seated, quietly eating their food. Some of the children are looking at the two girls.



Children are fascinated by the unknown and they are amazed by meeting the 'other', not only in the environment they are in but also within themselves, sometimes surprising even themselves (Tesar and Koro-Ljungberg, 2015). Following Semetsky (2011), becoming is more than being, because becoming expands through interrelations as the body is open to new relations (Deleuze, 1995). Mutually, all materials in this assemblage are always becoming during their on-going intra-actions (Lenz Taguchi, 2010). A plate of warm food, bodily repulsion, physical resistance, emotional discomfort, as one affects the other. In line with this thinking, the material objects such as tables and chairs, knives, forks and the food could be understood as actively intra-acting with Mary's body as well as specifically working her stomach and her mouth, evoking particular feelings and behaviours. According to Lenz Taguchi (2010), all places and more specifically the pedagogical places have their own rules such as a specific way of sitting, eating, behaving, moving, socializing, etc. However, in this becoming-monster assemblage, the interest lies in the new relations emerging between entities and what this monstrous process might do to those rules. For Braidotti (2013) the individual is relational as (s)he acts and (s)he experiments in order to constitute subjectivity. She suggests that this constitution happens only while being with other entities and operating in a socially connected world (Braidotti, 2013). An entity in a production of otherness can become healthy, obese, anorexic, depressed, hyperactive, excited, sick, overwhelmed, attached to the main carer, social, isolated, none of these, or some of these.

Mol (2008) argues when we eat an apple, we become what we eat, because if there was no 'apple' there would be no 'we'. And it is here, where it is extremely difficult to separate, the girl's body from the food, the practitioner, the smells, the future, space and ... and ... and ... the researcher, the camera. Therefore, when the girl becomes the other, there are no separate entities such as food, girl, researcher, or camera. Mary's boundaries are not firmed or fixed and the agency is distributed between the entities participating in the becoming monster assemblage (Mol, 2008).

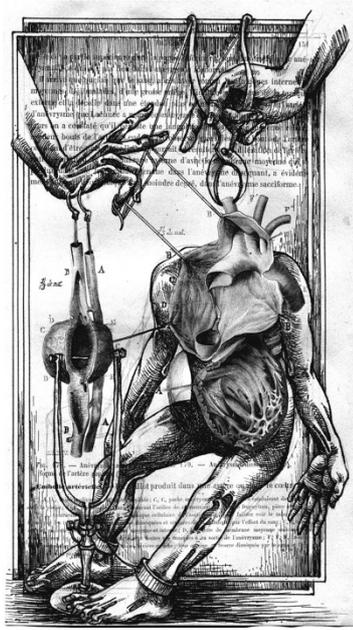
In Mary Shelley's novel, an unorthodox 'monster' is created during a scientific experiment. In the novel the monster, often known as Frankenstein after its creator Victor Frankenstein, is described as a 'creature', 'monster', 'demon', 'wretch abortion', 'it' (Shelley, 1971; Feder, 2010; Cottom, 1980; Prose, 2016). Montag (2000: 388) refers to monsters as a 'product', as he sees them to be assembled and joined together, products of science, technology, alchemy, chemistry, electricity, industry, studies, and knowledge (Montag, 2000). Law (1991a) also argues that as humans we are all composed of heterogeneous entities and that makes us products of confused overlap; "we are all monsters, outrageous and heterogeneous collages" (Law, 1991a: 18). In this moment in the nursery, Mary's monster assemblage becomes constituted by a series of affective relations, food, smells, the room with dining tables and chairs, the practitioner, researcher, reading, writing, philosophy, and ... and ... and ...

Shildrick (1999) considers monstrosity a condition of life and suggests we take monstrous bodies as the starting point rather than the final/end point or the result of something. An additional interesting view comes from Mosley (1991:71) who sees monsters as these things "born perhaps slightly before their time; when it's not known if the environment is quite ready for them". Therefore, the environment does not know how to treat them or to deal with them and as a consequence, confusion is produced. Interestingly in the nursery environment, where school 'readiness' is paramount (Lenz Taguchi, 2010), all the furniture, practices and pedagogies are elements designed to regulate the way Mary's assemblage (and other children) produces talk, actions, behaviours and not others (Lenz Taguchi, 2010) in preparation for being 'ready'.

In this instance, Mary's assemblage is forcing our re-consideration of the rationality and linearity of 'readiness', posing questions around who is ready for whom and in readiness for what? Therefore, it is worth asking rather than the child becoming school-ready, is the nursery environment ready for the becoming-child? People write policies, design furniture, train professionals. However, such creations seem to be leaking out on all sides, as they are framed by a human mind which is restricted by rules, desires and specific sets of condoned 'knowledge' and anthropocentrically-driven experiences. However, when the girl connects with this environment it becomes something different and when we connect those data with Deleuze and Guattari's concept of becoming, then they become something unique, as becoming is far from being the same (Youngblood Jackson, 2013:115). As it was noted, becoming is always in movement and changing. The nursery environment needs to be open to its own re-formations in interaction, intra-action and transformation with the becoming-child assemblage.



Figure 8 Becoming monster



To conclude this section, I draw on Deleuze and Guattari's work (1988), to review the becoming-monster event. According to Deleuze and Guattari (1988) this data is a machinic assemblage, along with this term, they refer to the monstrous forms of life, created between heterogeneous entities. This machinic feature of an assemblage is responsible for the production of misunderstandings, confusions, likes and dislikes, which affect the relationships between different bodies (Deleuze and Guattari, 1988). Therefore, as humans we are also part of these machinic assemblages and while being in these assemblages, the continuous influence between parts renders the participating entities involved in an ongoing process of becoming (Thanem, 2006).

7.5 Summary

This chapter has diffractively engaged with a becoming-monster event. In this posthumanist analysis, an alternative to a human-centric analysis was explored and through this event, the data assemblage enabled me to sense something more of what it might mean to use materialist methodology to produce something new, "data-in-the-making" (Springgay and Zaliwska, 2015:137).

Going beyond the human in this analysis I found myself changing the way I think about children and their relationships with food as well as changing my thinking regarding my personal actions. Following posthumanism, I started envisioning myself as a 'post-human collectivity' as my personal 'I' has now transformed into 'we' (Hayles, 1999:6). This new 'we' has a performative dimension and it is capable of transforming and influencing a number of other entities; a new way of thinking and doing research which I found exciting because I managed to rupture the boundaries of a solely human-centric way of thinking.

In the following chapter, I experiment more with diffractive analysis reading data that emerged at snack time.

Chapter 8

Kiss

“For ages, people have used [concepts] to determine what something is (its essence). We, though, are interested in the circumstances in which things happen: in what situations, where and when does a particular thing happen, how does it happen, and so on? A concept, as we see it, should express an event rather than an essence.”

(Deleuze, 1995:25)

8.1 Introduction

In this second part of the analysis, I want to experiment more with reading data diffractively, activating the relational intra-actions between a number of different bodies within an event, one of them being me as the researcher. I am curious what it would mean for me to ‘become with’ the data (Haraway, 2008:4), with all of my body’s affective perceptions activated when dealing with data, including the photographs. My aim is to produce a version of some of the many things activated at a particular moment when two children are having their milk and pear at snack time. However, the event created by the diffractive reading of this data is a whole new event that emerges during the time of reading that data (Hultman and Lenz Taguchi, 2010). This suggests that although I am not trying to ‘be’ the mat, the child or the milk, by imagining it, I am ‘becoming with’ what is presented in the picture in front of me, reading the data diffractively (Hultman and Lenz Taguchi, 2010). Deleuze and Guattari (1994) explain that the picture and what I think in relation to it are both effects of those forces which are mutually affected by each other.

8.2 A more entangled sensation: more-than-observation

I walk into the nursery. I am overwhelmed to see the children again but also feel nervous and stressed. Before every observation, I find it impossible to be completely prepared for what I am going to experience that day in the nursery. It is ‘snack time’ as I walk in and I notice what I experience as an unpleasant smell coming from the room next door: this is the time when lunch for the older children is being prepared. The smell of food is very intense, as though it is covering everything in the room, sticking to the

furniture, to windows, burrowing into the fibres of soft furnishings, finding its way into bodies through noses and saturating the air in every breath I took.

At this point I try to reach a point of calm, relaxing and freeing my body, allowing my mind to recall what that smell reminded me of. Jolting me into a past/present entanglement, I re-turn over many years. The smell reminded me of a nursery school that my young cousin used to go to in Cyprus. Sometimes, I went along with my auntie to pick him up after she finished work. I remember never liking that smell, it still conjures mashed baby food and boiled vegetables; food that brings an unpleasant taste in my mouth; traces of mashed potato, a taste of healthy, yet bland food that has no seasoning, no particular shape or structure. My remembering involves my whole being, all my senses and body, my mind, nasal memories, mouth, and stomach contractions. This bodily remembering is capable of creating a kind of muscular remembering, making me shiver and unconsciously I pull a particular facial expression I have on occasions when something makes me feel sick. Tightening my lips, I try to keep them closed, turning my head slightly to the left, almost as though I'm moving my face away from someone who is trying to spoon feed me.

As I drift and at times, get taken away by bodily sensations, memories, feelings, intimate moments in the nursery, intermittently I re-turn to my role there as I track and watch what young children and practitioners are doing during snack times. That day, unlike previous times, I decided to take a seat in the play area trying to be invisible, yet still awkwardly aware of the physical space I am taking up myself. It is that uncomfortable feeling of being the one who does not belong there.

The time is 10:30. The children are asked to take their seats on the mat. I immediately notice one particular plastic mat – it is very colourful, covered in images of fruits and vegetables. The mat explicitly represents an assemblage of fruits and vegetables as well as the pervasive healthy eating messages that are often reiterated to the children during snack time.



Figure 9 A pear, a glass of milk and a kiss

Two children are sitting on the plastic mat, Bianca and Andy, other children are sitting around the room without chairs, forks or knives or anything else that could make the eating process more formal and structured. The teachers are sitting with them on the floor. The room is full of colour, other artefacts, and resources such as dolls, a small oven, a baby doll's bed, plastic food, painting colours, drawings, paper, brushes, bottles, plastic cups, small plates and chairs, aprons, plastic house. My eyes drift back to Bianca who I remembered meeting on one of my previous visits in the nursery when she first came in with her mum. Her family had recently moved to the UK from France and she spoke only a few words of English. Today she looks very comfortable with/in the environment, smiling almost the whole time. When I saw her last, she was very different. She seemed very shy, sad and always attached to her mother's body. On the other hand, Andy is always very energetic and cheerful.

The children are seated on the floor in what feels like a relaxed environment without chairs, forks or knives or anything else that could make the eating process more formal and structured. The snack time starts with a song, using sign language, clapping hands or tapping feet. Bianca and Andy both seem to be enjoying the song as they are participating by clapping their hands and also smiling every time their names are mentioned.

The music re-turns me to memories of myself as a young child when I was attending kindergarten in Cyprus. I can clearly remember the time when we were having our snack. The routine was to wash our hands, take our seats around the tables and then sing songs while waiting for the drinks (I can only remember lemonade and water). I brought sandwiches from home as the kindergarten finished at 12:30 when my mum picked me up for lunch at home.

Trying to understand this data, I could orient myself to all the separate entities that are already known to me and seem to offer themselves up for analysis: the children; the mat; the pear; the milk; the nursery room; myself as researcher; things that I could argue have become solidified through what Barad (2007) would write of as repetition of boundary-making practices or material configurations of the world. However rather than viewing separate entities, I want to look diffractively at these images, making a turn over and over again in theories, previous knowledge, the food networks and recent readings in order to make something new, to find new intra-active patterns by diffracting and trying to explore new possibilities when “matter and meaning are mutually constituted” in the knowledge production process (Barad, 2007: 152). While becoming with the data as a researcher, my aim is to be open to material-discursive realities that affect the ways

nurseries promote meal and snack times or the way adults think about food/eating and young children.

8.3 Place as assemblage

This research was undertaken in an early years setting, rendering 'place' important in my inquiries. This place that appears in the pictures and where snack time happens is a different eating place from what children are used to in their home environment. That place in the nursery is a play room that augments to become an eating space for children to eat their snacks. The purpose of the place was not the same at 10:00 as it was at 10:20, therefore, the agency of the eating area constituted by both material and discursive forces creates a different atmosphere and purpose for the children. In that nursery environment, parents are not present, there is no table, and many people are in the same room. As Rossholt (2012), argues, the discourses of eating are different in different places as children are positioned differently in each situation.

Assemblages can be understood as a human-non-human multiplicity with actions, reactions and behaviours, that emerge through interactions (Taylor et al., 2012). Thinking of the nursery (place) as an assemblage itself is a "social, material and discursive field" including human and non-human entities. However, the nursery is also composed by other interconnecting and interlocking assemblages such as the plastic fruit mat, singing, books, chairs and ... and ... and ... (Taylor et al., 2012:103). Nurseries are highly emotional and physical spaces that come to life with young children, where relationships are shaped between people and the many non-human objects, forces and atmospheres in circulation, including for example noise, smell, touch (Osgood, 2014).

Drawing on the snack event described above, this event takes place in the same space where, at times, the children play with other children or adults, objects, and toys, but then at other times of the day, space is arranged differently, for snack time (at 10:20). This movement from one designated playing space to another eating place produces different feelings and affects. The sight of a mat on the floor, the movement of toys being stored away, the noise of the practitioner visiting the kitchen, a story book being taken

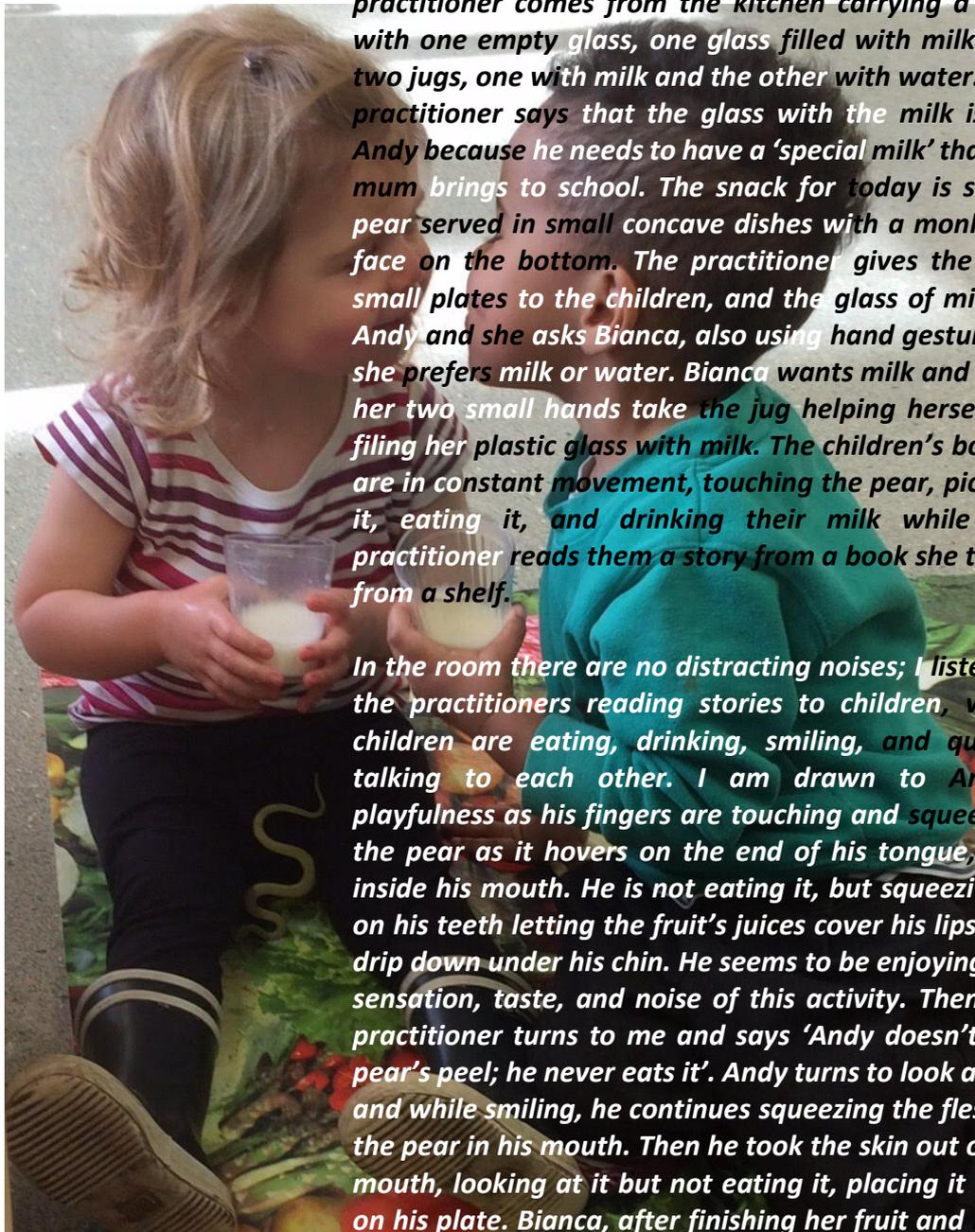
from the bookshelf and the musical sound of a song, all signify affective changes to the room. A quietness descends on the room. The mat was the first calling for what was to follow. The arrangement of the furniture produces a particular way of feeling and being in that space. The material agency of the lack of furniture during snack time connects to an openness and more casual way of behaving and feeling in that environment. In addition, the material agency of the furniture, the food, the storybook all contribute to a series of connections, a very particular snack time milieu.

Van Dooren, (2014:60) notes, that “everything is connected to something”, and not to everything, and this something is then again connected to something else. This suggests that there is a specificity to the entities we are connecting to, and relating with in the nursery context, emphasising that these connections matter (Van Dooren, 2014). There is an interesting proximity between the components of an assemblage. Drawing on this idea, it is interesting to trace the entities included in the snack time story. Going back to the earlier literature network, a number of networks were evoked, such as pre- and post-natal child development, eating policies, the posthuman child, and the sensorium of healthy eating. All these networks have ‘tentacle’-like relationships with one another that feel, sense each other, making connections of possibility, potentiality of complex stories that relate to each other (Haraway, 2016:2), and they are all needed in the production of this story. As Haraway argues, “Myriad tentacles will be needed to tell the story of the Chthulucene” (2016:2). The use of the word Chthulucene in Haraway’s work was purposely chosen rather than the word Anthropocene because it includes a number of ongoing multispecies stories and practices of becoming with in time (Haraway, 2016:10). Thus, with this term, the role of the humans is not central, and in the Chthulucene story, diverse humans and non-humans were included (Haraway, 2016). In addition, with the term tentacle which comes from the Latin word ‘tentare’ which means ‘to feel’ and ‘to try’, in this analysis as an embodied human, I felt and experienced all those intra-active entities, “including the more-than-human, other-than-human, inhuman, and human-as-humus”, which come together to compose this assemblage (Haraway, 2015:160). My role was to engage with all those biological-cultural-political- and technological actors that compose the assemblages (Haraway, 2015).

Similarly, the physicality of the nursery room is not disembodied; the rooms are composed by bodies and in this extract of data, they are seen as a number of related networks or assemblages surrounded by many elements that although may not be visible or static, are part of the collective and intra-active subjects and objects that co-constitute the room. For instance, within the room where Bianca and Andy are, I could visually see tables, children, teachers, teaching assistants, dolls, paintings, colour pencils and ... and ... and ... However, at the same time, there are many other invisible entities, whose role is equally important. Children bring with them knowledge, desires, customs, cultures, intensities, moods; teachers bring with them discourses, experience, knowledge, training, policies and the curriculum that they need to follow, daily personal issues; the outdoor area evokes the desire to go out and play, the dress-up corner and the dresses stir the desire to play etc. All those elements construct places that are made by diverse and affective components (Duhn, 2012). Although the nursery environment is an assemblage, there are also a series of other assemblages within this assemblage; while the classroom is a series of assemblages/networks so are the young children, as they are made up of biological systems and physical flows, language(s), gendered discourses, visceral feelings, cultural practices, time-related age, all constructed by other objects, subjects, relationships.

I am imagining this multiplicity of inter-relating assemblages always moving in, against, with/in and out of each other, an idea that relates to Massey's view of place as relational and non-static, being in constant motion as the entities within it make the place what it is and what it means to those entities, including people participating in that space (Massey, 2005). Therefore, the place of the nursery, or the room in that setting where snack time takes place, does not only become what it is with human engagement, but it is constituted by people living together with non-living objects, views, policies, curriculum, pedagogies and other entities that make that place meaningful (Massey, 2005). Through the lens of place as an assemblage, being and becoming take on new energies, as place exists through its relationship with the human and non-human world (Dovey, 2010; Duhn, 2012).

8.4 Pear-milk assemblage



I am suddenly brought back into the room when a practitioner comes from the kitchen carrying a tray with one empty glass, one glass filled with milk and two jugs, one with milk and the other with water. The practitioner says that the glass with the milk is for Andy because he needs to have a 'special milk' that his mum brings to school. The snack for today is sliced pear served in small concave dishes with a monkey's face on the bottom. The practitioner gives the two small plates to the children, and the glass of milk to Andy and she asks Bianca, also using hand gestures if she prefers milk or water. Bianca wants milk and then her two small hands take the jug helping herself by filling her plastic glass with milk. The children's bodies are in constant movement, touching the pear, picking it, eating it, and drinking their milk while the practitioner reads them a story from a book she takes from a shelf.

In the room there are no distracting noises; I listen to the practitioners reading stories to children, while children are eating, drinking, smiling, and quietly talking to each other. I am drawn to Andy's playfulness as his fingers are touching and squeezing the pear as it hovers on the end of his tongue, just inside his mouth. He is not eating it, but squeezing it on his teeth letting the fruit's juices cover his lips and drip down under his chin. He seems to be enjoying the sensation, taste, and noise of this activity. Then the practitioner turns to me and says 'Andy doesn't like pear's peel; he never eats it'. Andy turns to look at me and while smiling, he continues squeezing the flesh of the pear in his mouth. Then he took the skin out of his mouth, looking at it but not eating it, placing it back on his plate. Bianca, after finishing her fruit and milk, is looking at Andy and smiling at him. Although she does not speak much English yet, she is communicating with Andy by smiling, touching and playing with a plastic small snake.

Figure 10 Pear-milk assemblage

Moving intra-actively with the fragment of data, I want to focus more specifically on the food, juices and sensations producing Andy and Bianca's enjoyment of each other. Being entangled with that image while unfolding and refolding with the pear, the milk and children, and the juices, in this analysis I see us all as being performative mutually intra-active agents (Barad, 2007, 2008).

Taking the role of non-humans 'seriously' (Nimmo, 2011:108) in relation to the work of Haraway (2003) in this event, milk here is a fluid biological-mechanical-political transgression that traverses the human/non-human boundary, moving from its complex system of production inside the animal's body, to the machinery that forces it outside, to mechanical equipment that purifies and sanitises it and into plastic or paper cartons that contain its liquid and fluid form, into cups, onto lips, mixing with saliva, moistening tongues, coating teeth, special milk mixing with normal milk (almost) as it passes eventually into the human body. The role of milk and breastfeeding, in this assemblage are defined in relation to all the roles that milk has or takes during its production. The milk and its network in this story can be seen by practitioners and nutritionists as a source representing a healthy fluid that young children usually include in their diet; a source that is also associated with breakfast, healthy eating, and calcium which is associated with strong bones. However, milk's network is not just this, milk's network is active, it nourishes, it tickles Andy's face, it is responsible for giggles and a relaxed atmosphere. The lips touch the milk and within seconds, the milk touches the inside of the body, something that changes emotions and feelings. The taste of the milk, which was in the glass held by the children's hands, moves from the glass to their lips and then into their bodies, creating movement whereby the milk relates to, and becomes with, their bodies and minds.

Both subjects and objects in this event participate actively in an ongoing process of building and maintaining relations, something that also happens during breastfeeding between parent and child (extensively discussed in chapter 4) (Barad, 2007). Deleuze and Parnet (2002) argue that these relations are not separable from each other and cannot be seen as individual elements but can only be seen as assemblages. These multiplicities

are groups of relations that are always in process, changing and moving. The instability that a multiplicity has, enables its open-ended character, as more components enter and leave this grouping, it is temporary (Coleman and Ringrose, 2013). In this analysis, I take seriously the material intricacies and the way bodies are seen as productive (Coole and Frost, 2010).

As the two children come closer together, frictions and tensions of muscles pulling occur, grasping, lips pursing, bodies moving against plastic mat, gravitational, friction, tension, the multicoloured mat with all the fruits and vegetables, the glasses of milk that are positioned between the hands of the children are all active forces that intra-act not only with the children's bodies and minds but also with politics, as the apparatus of looking changes the event as the observer observes. Although from an anthropocentric perspective, children might be seen as the most active elements, from a relational materialist perspective (Hultman and Lenz Taguchi, 2010), they are not thought to have more capabilities, intentionality or be any more autonomous. Reflecting on Deleuze's (1990b) thinking, the children as well as the milk are forces that come together in that event; an event of exchanging fluids, lips touching the glass, milk touching children's lips and moving to their mouths, their pharynges, oesophaguses and then their stomachs, milk covering their upper lips, legs and body movement, hand supporting Andy's body, bodies balancing, head leaning sideways, eyes closing, mouth closing, hands squeezing the juice from the pear, mouth stretching creating a smile. A process that includes as Small (2012:540) argues "gustatory, oral-somatosensory, and retronasal olfactory signals" which, as explained in the 'eating sensorium' actor-network can influence the way people experience food.

Rossholt (2012) suggests that touch produces childhoods and in this context where Andy and Bianca are sitting and enjoying their snack together, they are both touching and being touched by others (subjects and objects) (Rossholt, 2012). Initially, touch seems to be between bodies, externally, skin to skin. However, looking at the fluids entering the children's bodies, touch is happening internally and not just on the surface. Therefore, touch can relate to the skin outside a body but also inside the body, and for this reason, it is a visual and an invisible movement (Rossholt, 2012). These two children are creating

relations between them and between the fluids, the fruit and other objects around them through touch, even if that touch is through their eyes. In addition, they were both touched by the fluids, the body becoming differently every time through these relations.

The force of milk is active, as well as the juice from the pear, the glasses, the plastic mat, etc. as they all contribute to the playfulness atmosphere of the event. Andy is becoming with the milk, and the milk is becoming with Andy (Deleuze, 1990a). This takes me to the Deleuzian idea of becoming and more specifically to the multiplicity of becoming (May, 2003). Through becoming, mutual transformations happen with living and non-living entities, which happen to share similar or even the same environments (Biehl and Locke, 2010). For Deleuze and Guattari (1987) the process of becoming should not be seen as a process of imitation or analogy, as always something new occurs. For this reason, Deleuze (1995:171) argues that becoming is not part of history: “History amounts only to the set of preconditions, however recent, that one leaves behind in order to ‘become,’ that is, to create something new” (Biehl and Locke, 2010; Lundy, 2012). Through this idea of becoming, it is interesting to think more about the continuity shared between two or more entities and the process of changing within an assemblage (Semetsky, 2006). Becoming has the dynamic to change the nature of an assemblage while this expands its connections and always becoming other (Deleuze and Guattari, 1987).

Re-turning this snack time event, there are no borders between the children and the milk. Each change occurring resonates across entities, changing each and all of them as one piece of the assemblage (e.g. milk) is drawn in by another piece (e.g. child/mat/teacher/another fluid), mutually changing its value and become something new. Andy’s behaviour becomes with the assemblage that is being created around and within him.

I am momentarily re-turned to Deleuze’s idea of philosophical immanence (1988), where subjects and objects are inter-dependent in a non-hierarchical and non-static environment. For instance, the children in this event do not appear the same, static or outside the many intricate connections with other human and non-human entities. Milk is inter-dependent with the children and all the other materials and semiotics with-in the

image. Milk is part of their past (breastfeeding/bottle-feeding), their present (being in a school setting) and their future life, something that was discussed in the Milk network (chapter 4). The subjects/objects in this data are effects of relational events; they are assemblages of intra-acting forces that cannot be viewed as fixed beings but as a way of being (Hultman and Lenz Taguchi, 2010); an outcome from the multiple associations and relations that also includes and brings with it the present, the history of previous encounters, and anything that the future holds (Deleuze, 1990a).

Trying to decentre the human by considering the data themselves to have a 'constitutive force' (Hultman and Lenz Taguchi, 2010: 527), I find data to be working upon and composing me as much as I work upon them. I am reminded here of Barad's discussion of Bohr's understanding of quantum physics, and particularly the discussion of the observer effect. Barad (2007) argues that in observed events, observer and apparatus used are always present in the moments of observation. These three 'intra-acting agencies' (Trnka and Lorencova, 2016:43), contribute to the production of scientific knowledge. It is essential at this point to note that I acknowledge the fact that I am part of the event that I investigate as there is no clear distinction between me as a subject, who conducts this research and collected pictures through my phone (an extension of myself) and the world around me as an investigating object (Hammarstrom, 2010). Bohr, adds that objects, subjects, and researcher, contribute to the production of the whole, or as Barad calls it 'wholeness' (Barad, 2007:119).

8.4.1 Affective flows

In this data, it is interesting how affect determines something of this event involving children's bodies, and the relationships between those bodies and other human and non-human elements and the environment (Shouse, 2005). To sense something of the affective relationships between the entities participating in the event described, focus will be placed on some of the entities taking part and the assemblages that they seem to develop. Each entity is seen as a body (human or not) of relational parts that affect and are affected by other internal or external entities (Boljikovac, 2015). In addition, I consider the affective forces not only between the entities participating in the

assemblage but also the affective forces between the photographs themselves as they constitute a different assemblage (Boljikovac, 2015). Momentarily, I want to re-turn to the quotation I used earlier: “Agency on this occasion is relational, emerging in-between different bodies ... involved in mutual engagements and relations” (Hultman and Lenz Taguchi, 2010:530). This idea of agency emerges in-between forces of different kinds (physical, affective, political and ... and ... and ...), suggesting that complexity is something that happens during daily affective flows, framing our embodied existence and therefore occurring in data analysis (Dolphin and Van der Tuin, 2012).

Through the analytical lens of the assemblage, the milk, the pear, Andy and Bianca are also assemblages with their own affect economy. On this occasion, it would be interesting to identify the relations developing in and across these assemblages, exploring the affects between those relations, as well as the capacities they produce, interrogating what makes assemblages work (Fox and Alldred, 2014).

Touch and senses are two additional components in these assemblages. Drawing from the eating sensorium (chapter 4) I can see body and senses inter-relate to create flavours, feelings and experiences. For instance, the same pear skin with its velvet and soft surface, rejected as potential food by Andy, simultaneously created a feeling of playfulness for him. Although he was not going to eat it, he found it enjoyable and funny to play with. When the skin of the fruit engaged with his body, there was excitement. Eyes widened; fingers are putting pressure on the skin of the pear, pressing it hard against front teeth, all the juices dripping out of the fruit. Perhaps the sensations, experiences are flaunted, as something different, something other than eating emerges. The act of squeezing and playing with the skin worked at both creating an amusing atmosphere and also distracting Bianca, gaining her attention. The stretched and squeezed skin produced laughter, smiles, and entertainment.

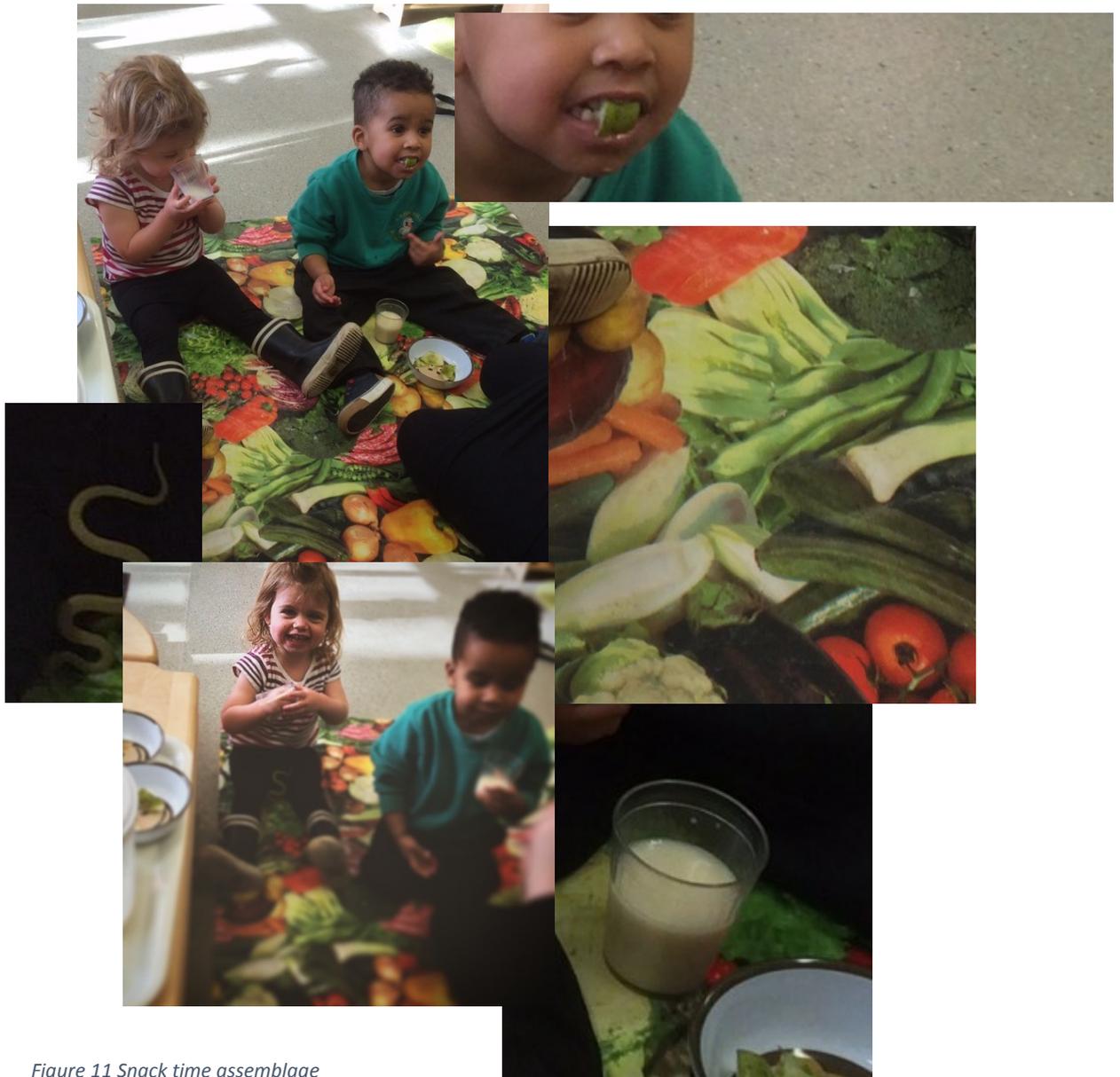


Figure 11 Snack time assemblage

A generous amount of juice was produced in Andy's mouth, on his hands and face, a pleasant sensation for him. What it is also interesting here is the affective relations created in-between the entities in this assemblage and the capacities they produce (Youdell and Armstrong, 2011). A particular pleasure is being produced from the affective relations between the skin and juice of the pear and Andy, Bianca, the milk, the mat, the story etc., as it seems that each co-constitutes the other.

This assemblage composed of a mixture and hodge-podge of non-human and human entities intimates something of the way bodies are understood and lived within a space with other bodies, living or not, the ways they intra-act, affect and are affected and the outcomes they produce (Taylor, 2013a). Such fluid, moving, complex assemblages come together in this event as part of an academic research assemblage composed by myself as researcher, already affected by the methodologies, onto-epistemology, the research tools, the theoretical background, my previous knowledge and experience, my educational background and so on (Fox and Alldred, 2014). All these relations created between the elements compose the ever-ongoing event presented, coming together through specific affective flows to produce new knowledge (Fox and Alldred, 2014). This materialist analysis opens opportunities to look closer at all those heterogeneous entities participating in an assemblage and produce a more democratic analysis where no matter or subject will prevail over the other.

8.4.2 Intra-action and agency

As noted earlier, this chapter is attempting a diffractive analysis where ideas, feelings, memories, research problem, images, videos, researcher, and participants, affect each other and interferences between them, aim to produce something different (Barad, 2007; Davies, 2014). Drawing further from the work of Barad (2007) and her theory of agential realism, the world is composed of intra-acting agencies. As discussed in the methodology, this intra-activity is developed by a mutual constitution of humans and non-humans that do not exist as individual elements but only as relational (Hammarström, 2010; 2015). An example from Davies (2014) is helpful when trying to understand how this intra-activity happens when encountering the ways our body works. Our heart, liver and blood intra-act with each other to maintain a healthy body. The liver controls the blood and the blood protects the liver and together they produce the blood that then goes to the heart. If one of these components breakdowns or fails to do what is suppose to do, then the work of the heart also fails and the flow of intra-action dysfunctions as each individual organ is reduced to different activity (Davies, 2014:38). With this in mind, I want to re-turn to the intra-actions developed between human and non-human elements in the snack time event described above.

Beginning with the place where the children experience snack time, a range of intra-actions are provoked by and produce the things around them. Place in that event plays an interesting role in the event-assemblage. In that story, the eating area is not just a physical space containing passive objects that are waiting to be used by human bodies (Taylor, 2013a). The physical space is already intra-acting with the pear, Andy's previous experiences, Bianca, fluids, story, teacher, researcher, and toys. The pear produces moments of disruption to Andy and the milk produces moments of playfulness and joy to both Andy and Bianca.

The bodies of the two children and their anatomy and physiology interest me in relation to all the forces participating in the process of materialisation (Barad, 2003: 809). The intra-actions include the properties of those bodies and the observations of those bodies along with the camera (technology used) to capture this event (Colls, 2007). Human bodies consist of fluids such as saliva, urine, tears, sweat, vomit, mucus, blood and ... and ... (Longhurst, 2001). Focusing on the mixtures and combinations of such fluids internal to Andy and Bianca's bodies and those that appear on the outside but in relation to the body, such as saliva, juice, and milk, helps me to contemplate the intra-active capacities of all bodily matter which acts upon the body, changing its form.

At this stage, I would like to add the contribution of one more fluid intra-acting with this liquid assemblage. On that day, in the middle of the winter, I remember myself catching the train on a rainy day in Manchester and then having to walk to the nursery holding my umbrella for 20 minutes. The struggle to protect myself from the rain still feels something impossible, and I walked into the nursery with parts of my trousers wet, especially at the bottom. When I arrived, the children had their wellies on as the ground outside was very wet. It is interesting to consider the ways the liquid element functions on and inside the bodies of the children, its agential capacity. The liquid element appears to be present in this assemblage, even before the arrival of the children to the nursery. The intra-activity of the liquids, suggests liquids can be materialised as a form of bodily matter which has its own capabilities to act and be active while causing effects (Colls, 2007).

In this story, neither the liquids nor the children alone have agency. When focusing on the intra-action between the liquid element and human bodies, I can sense the mutual production of agency between them (Hultman and Lenz Tanguchi, 2010). The fluids cover the faces of the children and their 'game' continues as they seem to enjoy it, and the children are engaging with each other, with me and the teacher in the production of this joyful atmosphere (Colls, 2007). Andy and Bianca are caught up in the intra-actions around, and co-constituting them. Looking at the event as an assemblage of flowing liquids intra-acting with children's faces and bodies, with the plasticity of the mat, the atmosphere, the air, the lighting, the smells, the comfortable location of their bodies on the floor, which then are already intra-acting with the building (place), the rainy weather, their wellies, and the snake toy Bianca has on her legs. Children as well as the liquids are continually becoming. Children have agency as 'iii' and not 'I', as posthuman children do not independently exist in this study but they are seen always in relation to the researcher, the teachers, the food, the senses, the liquids, the data, the photographs and ... and ... and ... (Murriss, 2016).

The presence of the milk seems to affect the two children as they share laughter and eye contact. The atmosphere of snack time shifts with laughter and the children's playfulness. The rules that usually apply when the children eat are interrupted and almost suspended for that moment by the children's giggles. Perhaps these noises and disruption to the usually more sedate event of eating allowed Andy to approach Bianca's face. As Barad (2007:159) argues, "bodies in the making are never separate from their apparatuses of bodily production". For this reason, the mat, milk, the lack of chairs and tables and bodies are all entangled and intra-active in the nursery room's assemblage.

8.5 Not-quite-a-kiss: More-than-a-Kiss

I now want to re-turn the data to explore more closely the 'pear-milk' assemblage and think about the ways I am entangled in what readings are made possible. I re-turn my research diary alongside this particular image, as an assemblage composed by multiple encounters; a mixture of different bodies and matters that all co-exist at that time and that particular moment (Deleuze, 1990a).

Bianca asks for a second drink. With the teacher's confirmation, she helps herself and puts some more milk in her plastic glass. The two children's bodies are seated, their hands supporting the two plastic glasses with milk, their body, nervous system, digestion system, lips, esophagus, stomach, mind, teeth, facial muscles, energies all participating in that moment when children are enjoying their drink.

The boy's body makes a move closer to the girl's body, which is steady. They continue drinking their milk, looking each and laughing between them every time milk covers their upper lip. This event makes them both laugh and come even closer (physically and perhaps emotionally) showing each other their lips covered with milk. The practitioner's body and hand move closer to the two children. Suddenly she intervenes, stretching out her arm in-between the children to avoid their lips touching.

Going back to the photograph (more photographs of this event can be found in Appendices IV and V), as I read the data, I felt a diffractive intensity alive within the data, and the event of kissing glowed (MacLure, 2013c). In that moment, these few seconds where things seemed to pause after a repetition of actions of squeezing, licking, sucking, laughing, touching, drinking, tasting, smelling, remembering, Andy's eyes appear to be closed, relaxed while leaning forward, a position that almost lets their bodies touch, almost kissing. Bianca looks directly into his lips. Andy supports his body with his right arm, a move that helps him to bring his core closer to Bianca's face. During that moment of silence and anticipation, the mind and senses are free to make new thoughts, to feel new emotions, to live new experiences. A smile appeared on Bianca's face; something satisfies her. Food brings pleasure and satisfaction, it brings people together, evoking smiles in my family, loud conversations between siblings, cousins, aunties, uncles, friends... apparent in my mum's face is the pleasure of having pleased others.

This continuing diffractive analysis emerges from the glow of the 'not-quite-a-kiss' event as I am curious why this event drew me to it. In the following section, I will engage with the intra-actions between pear, milk, children's bodies, sensations and literature as I return the data. Using 'kiss' as an assemblage, I am interested in the human, non-human and more-than-human stuff, including edible things that touch (physically, metaphorically, abstractly, in memory) in the assemblage.



Figure 12 More-than-Kiss assemblage

The idea of 'kiss' fires up connections in my mind (MacLure, 2010:282). This 'not-quite-a-kiss' gesture in the data seems to glow, affective relations spark inside/out of/around the event, as a range of bodies come together. The 'kiss' is an event that may (or may not) have happened. If a kiss is 'a touch or caresses with the lips', the same could apply to the pear juice, the fruit's flesh and the milk that each of the children enjoyed independently on their lips. Haraway's literature on the 'interspecies kiss' becomes relevant here, and although I will pick this up in more detail later in this section, here the idea of mixtures, "to be one is always to become with many" (Haraway, 2008: 4), takes

me to the movements and intra-actions of many things within and across the 'not-quite-a-kiss' moment in the seemingly static image. One thread weaving itself into this entangled story brings the EYFS, back into focus. As discussed in the Milk network (chapter 4), an important consideration for practitioners, is to ensure they are careful about what they provide children with, especially if they have special requirements. Andy's need for 'special' milk could have triggered the practitioner's rapid response to their 'not-quite-a-kiss' movement, as an exchange of the two different liquids, may have been problematic.

I remain entangled in lips, pear juice, early years discourses of inclusion but also of sexuality, as well as Freud's oral stage and psychosexual development theory, vampires and breastfeeding among many other tentacle-like threads.

8.5.1 Childhood sexuality and the kiss

The kiss can be controversial. Lips touching remains sexualised, particularly in most Western cultures (Leishman, 2013). With the sexualisation of young children becoming a potential new actor entering the 'child development' and the 'Milk' networks, the relations between the entities participating and interacting are altered. The practitioner's rapid intervention in-between Andy and Bianca as they moved towards each other into the 'not-quite-a-kiss' gesture, evokes a sense of forces coming together to produce this sudden intrusion in their experimentations. The practitioner's action may re-present a persistent UK concern about, and policing of young children's sexuality. The practitioner's reaction here could show some of her professional anxieties. Though, I am not in a position to know what the practitioner was thinking or feeling when she intervened in this movement, I am interested in a speculative account that may open up different ideas.

For Deleuze and Guattari, bodies are seen as machines; active and creative, they like experimenting while being entangled with life. Bodies intra-act with other material and semiotic assemblages while they are becoming (Fox, 2012; Bruhm and Hurley, 2004; Ivinson and Renold, 2013). Holford et al. see becomings and assemblages to be "productive because they help us to theorise gender and sexual subjectivity as the effect of constant processes of differentiation and proliferation" (2013:7). There is much

potential for gender and sexuality to be empirically examined in early years (Renold and Mellor, 2013), and significant contributions have been made from posthumanist and feminist scholars in childhood studies, gender and sexuality (Braidotti, 2013; Osgood and Robinson, 2017; Osgood, 2014; Barad, 2007; Osgood, 2015; Haraway, 2008).

The practitioner's reaction that stopped the children moving closer at this point appears as a contradiction to the freedoms and independence given to them until this moment. The children have been given the freedom to choose where they want to sit, they were able to choose what they wanted to drink, not under any pressure to finish their fruit, and they could serve themselves by adding milk or water to their plastic glasses. All the 'freedoms' being nurtured during snack time activities, were interrupted by the surveillance and policing of that moment of 'almost-a-kiss', a complex moment where boundaries were transgressed, behaviours were restrained and experimentations were curtailed. After that something changed. That 'almost-a-kiss' for this adult, in this nursery setting, under these circumstances, could not happen. She intervenes trying to 'protect' in this 'protected space' the children. Was she also protecting herself, following some personal moral or ethical codes or nursery policies? The speculative act of 'kissing', as Holford et al. highlight (2013:2), is 'over-coded' with meanings that sparked action in the nursery. I am interested to speculate how 'kiss' has become so over-coded across time, so much so that in that moment of practitioner intervention, a cascade of potential material-discursive entities irrupted as affective forces.

While discussing the sexualisation of the kiss in relation to young children, images, and the internet, it is pertinent to refer to the influence of media and particularly the internet on peoples' lives. With 90%, or more, of young people between 12 and 18 years accessing the Internet, this increased accessibility has led to a rise in pornography viewing among children and adolescents, something with serious ramifications for a child and adolescent sexual development (Ybarra and Mitchell, 2005). This could have also influenced the practitioner's decision to intervene when the children's two faces came really close. Living in a world where videos and pictures can go viral in only a few minutes without any control over what goes online, people and young children are seen as in danger of exploitation.

At this point, I find it interesting to ask the question whether the practitioner might have reacted differently if the same situation had arisen between two girls or two boys? It is important to note that the heteronormative male/female binary is maintained and expressed in this event. Additionally, Bianca is French from a white background and Andy is English from an African Caribbean background. I wonder to what extent does New Materialist and Posthuman research enable a response here to the postfeminist claim that gender is no longer an issue? (Osgood and Robinson, 2017) and what about ethnicity?

Drawing on feminist work (Renold, 2005; Robinson & Davies, 2015), children understand sexuality and sexual identity through playground and early social and material experiences that carry the threads of heteronormative discourses of gender within them. For example, role-playing mum and dads in the home area, kissing and chasing and boy/girlfriends games. According to feminist poststructuralist researchers, these experiences articulate children as the main agents in the construction of their own gender, something that shifts over time, space and place (Osgood and Robinson, 2017). In addition, the importance of the impact of the social world on children's gender identity is also highlighted by feminist theorists as they argue that the psychological and behavioural characteristics of gender are not 'natural' but social. Therefore, the role of nursery and schooling in that process is crucial as sex roles are learned through peers, teachers, parents, friends, media etc. Could the event that occurred between Bianca and Andy, be reinforcing a traditional sex role stereotyping according to the practitioner's own modeling of stereotypical gendered behaviours (Osgood and Robinson, 2017)?

Being influenced by posthumanism, NM and feminism, by de-centering the human and thinking beyond the human subject, it is possible to acknowledge that gender in early years is produced through associations between humans and non- humans (Lenz-Taguchi, 2009; Olsson, 2009). This more-than-human account of gender and sexuality enables a re-thinking of children ('iii') through entanglements and intra-actions between subjects and objects, as children challenge, accept, and shape their becomings (Osgood and Robinson, 2017). Therefore, gender, like the fluids participating in the event, is always potentially shifting and re-shaping according to place, space, environment, objects, subjects, toys, clothes, words, and ... and ... and ...

8.5.2 The threat of death: the perverse kiss

In the ongoing analysis that includes kissing, lips, fluids, sexuality, and gender, I re-turn knowledge around ancient Greeks, something that I was taught when I was studying Classical studies. The mouth, for ancient Greeks, was a complicated and dangerous organ, and it was seen as a machine including lips, teeth, saliva, blood, nerves and many more sensitive mucous membranes (Lateiner, 2009). Words such as saliva, blood, and nerves bring to mind Greek mythological dragons and monsters; Centaurs, Cyclopes, the Gorgon, and much more. Female monsters are particularly fearsome, usually trying to seduce men in order to bring them closer to them, with a song or with their beauty, and then tearing them into smaller pieces, tasting their blood and eating them.

An example comes from Σειρήνες (in Greek)/Seirēnes, dangerous creatures, represented as large birds with women's heads, using their music and voices to attract sailors. According to Perry (1883), their song is presented as irresistibly sweet, and it could touch and trap both body and soul in a fatal lethargy, the forerunner of death and corruption. More specifically, in *Odyssey* XII, 39, Homer presents Ὀδυσσεύς (Latin name Ulysses), as a very clever but also curious man, who could not bare to miss the Seirēnes' song on his way back to Ithaca, after the Trojan war, and for this reason, he asked his sailors to plug their ears with beeswax and tie him to the mast, while listening to their song. He also asked them not to untie him, no matter how much he begged them. When he heard their song and they sailed away from the Sirens, he ordered the sailors to untie him but they bound him tighter.

From more recent literature, the kiss of death, blood and nerves are related to Dracula and Vampires characterised in novels and represented in films, simultaneously as terrifying and attractive to their helpless victims (Heldreth and Pharr, 1999; Hudson, 2008). Contemporary filmic vampires are portrayed as chic, with characteristics that make it difficult to distinguish them from 'normal' people (Heldreth and Pharr, 1999). Hudson (2008), notes that vampires in films are represented as sexually predatory immigrants who infect and enslave the weak and the incautious humans after firstly making them fall in love with them.

Trying to break up the 'overcoded' kiss to get a sense of the moment when the milk-pear-body playfulness and experimentation was abruptly stopped, I re-turn literature around childhood and sexuality. According to Page (2016), a small but increasing number of early years' practitioners have been convicted of child abuse and parents are becoming more suspicious of adults' professional relationships with their young children, impacting on childcare providers (Page, 2016; Hopkins, 1988). This produces particular tensions as early years practitioners' roles that involve caring for young children, showing affection, being protective and loving with them (Page, 2011), rub up against the omnipotent dangers of always being potentially abusive or over-stepping certain boundaries of affection and care (Page, 2016; Page and Elfer, 2013). Lips can be perceived as something seductive, appealing and erotic. Conkbayir and Pascal, (2014) highlight, a kiss has an erotic dimension, especially a kiss on the lips where an exchange of fluids happens between two bodies intimately involved, entangled with each other. According to Miller (2015), lips are an intimate part of our bodies that are usually uncovered, but some Muslim women do choose to cover their mouths when they wear a niqāb. Miller (2015) makes a very interesting relation between the mouth and our inside world. Through the mouth we succeed at breathing, drinking, eating, talking and expressing our thoughts and it is through the mouth that our inside thinking finds the way to come out through language (Miller, 2015).

8.5.3 Breastfeeding and the kiss

Another glowing thread embroiled in the almost kissing event between Bianca and Andy, is the children's body language. Bodies touching while exchanging emotions, fluids through licking, squeezing, touching, drinking and tasting, took me back to the materiality of milk and more specifically to the importance of milk in child development, discussed in the Milk network (chapter 4). Breastfeeding is associated with kissing as it is an embodied experience that is highly physical and emotional for both the mother and the baby. In this analysis, their relevance is obvious as during this process there is a continuous exchange of touching, fluids, holding, playing, watching, caring, hormones pulsing, and satisfaction (Bartlett, 2005). Infants, by touching, kissing, and sucking their mother's breast, they realise that this offers them comfort, safety, warmth, care, satisfaction; emotions that are fulfilled because they are eating (Bowlby, 1958; 1969).

Drawing on Deleuze and Guattari (1972), the relationship between a mother and a baby is machinic, as “the baby and the breast form a desiring machine; the part objects do not represent anything, least of all his parents” (1972:47). The event of breastfeeding, for Deleuze and Guattari (1972) is composed by the flow of the milk from the breast and the cut off from the baby’s mouth, which then is ‘responsible’ for the child’s nourishment and energy.

Re-turning the more traditional literature around Classical Conditioning (with Pavlov and Watson) and Attachment Theory (Dollard and Miller, 1950) woven into this analysis, such theories suggest that babies have a biological drive to seek proximity to a protective adult, and this protective person usually is the one who is associated with feeding (Dollard and Miller, 1950; Bowlby, 1958; 1969). Young children are thought to develop attachments to people who offer them food, associating them with comfort and safety.

Golding (2012) sees breastfeeding as a moment of non-separation, security, and wholeness. In addition, it is a moment of equality between the two people involved as it offers equal pleasure and security. It also can bring a sense of satisfaction for the mother of becoming ‘one’ once again with the baby, one body through a “physical act of love” (Sichtermann, 1986: 62). Golding (2012) uses the term unity when she talks about these first moments of attachment between a child and his/her mother. Mother and new born are like new lovers falling in love by looking at each other, touching each other, through moments of silence, moments of kissing, sucking fluids (milk), eating, and close heartbeats (Bartlett, 2005).

Freud writes about the importance of oral satisfaction and babies, which seems particularly interesting because of the association between mouth and playfulness, comfort and safety (Doherty and Hughes, 2014). Children might associate these feelings with their mouth, as initially every form of comfort is thought to come from milk, and their mouth. Consequently, while playing with their toys and any other objects placed around them, even plants, soil, forks, knives, paper, and . . . and . . . and . . . they have this distinctive desire to place them into their mouth and suck them, expecting to feel

the same satisfaction (Doherty and Hughes, 2014).

Another dimension picked up earlier and still lingering in this assemblage is young children's sexuality. It is useful to examine some of the threads of thinking that feed this contentious area. Brilleslijper-Kater and Baartman (2000) studied the knowledge of 63 Dutch children between two to six years olds, around sexuality, and they concluded that children only had a basic understanding of sexuality. In Cullen and Sandy's (2009) research, children were also described as having minimum understanding of gender and sexuality. This project's definition of sexual knowledge referred to the ability children have to identify sex differences between the two genders, to name sexual body parts, to be able to describe the birth process, and adults' heterosexual behaviours. The findings, showed that children appeared to understand sexuality in the context of kissing between boys and girls or cuddling. Some children's songs refer to kissing, sometimes used to tease others:

[name] and [name] sitting in a tree
K-I-S-S-I-N-G
First comes love, then comes marriage
Then comes a baby in a baby carriage

Freud (1922) used kissing to make the separation between 'normal' and 'perverse' sexuality; he constructed a theory around 'normal' heterosexual people and 'perverse' homosexuality. A study by Blaise (2010), conducted in Australia, observed three and four-year-old children in an early years setting to find out more about the way young children think and understand gender differences and sexuality. The main conclusions indicated that children have a considerable amount of sexual knowledge. During this research, children were encouraged to talk about what they knew about kissing, which appeared to be a taboo topic. When girls were asked "Have you ever kissed a boy?", they started laughing and there was a reluctance to giving a straight answer. According to Blaise (2010), kissing was problematic in this context as it seems to represent a whole realm of sexuality, putting girls in danger and at risk. When children did respond, they felt too young to be participating in kissing as kissing was thought to be something that happens between adults or between a man and a woman when they get married. The findings of

Blaise's study suggest a set of social restrictions and social messages are passed to children about heterosexual norms and the ways these are used to regulate which behaviours are considered "appropriate and acceptable" for children (Blaise, 2010).

Drawing on research by Balter et al, (2016), children's understandings about sexuality, manifested in their awareness that 'some games' can only be played in secret locations. According to Balter et al, (2016:34), children's playing involves gender exploration and "displaying physical affection towards peers/teachers [that] might include attempts to touch a teacher's breasts," and "attempts at investigating same gender genitalia and kissing".

8.5.4 The religious kiss

I am momentarily pulled towards religion here, both as a particularly vibrant thread connecting childhood and sexuality, and also as a force that regulates eating habits, food practices and traditions (Gerber et al., 2015). A number of scholars have observed with great interest the bodily control and the control over food desire that teaches self-discipline, self-restraint and generosity (Gerber et al., 2015; Trepanowski and Bloomer, 2010). For example, in Christianity and Islam, one of the reasons for lent or fasting is for spiritual purposes (Uher et al., 2006; Stearns, 2002). Food prohibition though is often related to a deep suspicion of bodily desire, which in Christianity, is seen as gluttony, considered as one of the seven deadly sins (Hill, 2011). Williamson (2010) and Hanh and Cheung (2011) suggest that religious people focus more on spiritual enlightenment than on food as this feeds the spirit, which is considered more important than the body.

In the following section, I pull at the threads to connect religion, kissing and eating where food, fluids, and emotions are exchanged. In early Christianity, Christians believed they could exchange the holy spirit (liquid) through kissing. Kissing also was a sign of forgiveness as it involved physical contact something that showed acceptance of the other person (Penn, 2005). When kissing occurs on the hand of someone else it can be a gesture of obedience, for example when Catholic believers kiss the Pope's ring; it is a way to seal a pact (Miller, 2015). In Christian Orthodoxy, an honorable and respectful practice shown to priests is to kiss their hand, asking for their blessing. Kissing the hand of the

priest comes from an old tradition where younger people would kiss the hand of elders showing reverence, something that it was expected not only from older people but also from parents, grandparents, and godparents.

In addition, in Orthodox Christianity, when people kiss the 'icons' (painted images on a wood of Jesus, Mary, and other Saints) is also a practice of asking for a blessing. Kissing icons is a practice that personally makes me feel closer to the Saint who appears on the icon, something that gives me hope and strength; hope that my prayers will be heard and completed (become true) as well as forgiveness for my mistakes. It is all about this strength that I feel inside me after my lips touch the icon and the reassurance that everything will be fine. When a Christian Orthodox kisses an icon, they do not see the wood of the icon (the object) as divine but the face which is on it. To express even more respect to the face printed or painted on the wood, Christians sometimes before kissing the icon, bow and make the sign of the cross (Čekanskaja, 2016).

Another important kiss in Christianity is the kiss of Judas to Jesus. According to the Bible's New Testament (Luke, 22:48), the kiss happens in the Garden of Gethsemane and marked Jesus as the one to be arrested by the authorities and subsequently crucified (Miller, 2015).



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8.5.5 The meaning-less-ness of the kiss

This affective event has come to move and rest in particular trails, tentacle-like threads through thoughts, feelings, literature, images, and interpretations that draw in young children and sexual provocation, breastfeeding, theology, pornography, paedophilia and child protection in relation to gender, age, race, nationality and ... and ... and ... Trying to dismantle the overcoded 'kiss' and make (non)sense of the event between the two young children and the theoretical-discursive-material context around kissing, I am wondering what else this kiss can do.

Perhaps the affective journey of the kiss starts from the moment children were asked to meet for their snack. Eating for these two children was a moment that excited them and as they ate and enjoyed (or not) the textures, consistencies, feelings, and tastes of the different liquids and solids on their lips and in their mouths, their bodies were brought closer to each other. The kiss assemblage is relational, enabling moments of laughing, silence, eating, touching, feeling, and becoming. It is also an affective material event, which was (or not) about to happen in a relational place where bodies (human and not)

affected each other and exchanged actions and passions with each other (Deleuze and Guattari, 1994).

The affective glow (MacLure, 2013b) as Bianca smiles and Andy's face comes closer with his eyes closed for few seconds, is interrupted by the practitioner. The event changes when the practitioner cuts into it, producing opportunities for particular readings and meaning-making moments in data analysis. The question about what could have happened if the trajectory of the event had not been shifted plays on my mind. This 'kiss assemblage' was produced in a specific place and time, with one practitioner who was informed, motivated and inspired by specific rules and ethical considerations, her own upbringing, ideas, education, and training and an event that happens to emerge in a school environment, governed by certain practices and policies.

This interesting encounter forces thoughts of Donna Haraway's 'interspecies kiss' (Haraway, 2003). The milk is already caressing the children's lips, as was the pear flesh and its juice. The children seemed to be interested in touching lips, adding more slime to saliva, wet skin, Andy's special milk mixing with normal milk, pear flesh, juice and ... and ... and ... As the fluids were covering their lips and face, children became entangled with this material. Children were satisfying their thirst, and fluids were simultaneously pleasing them by satisfying their curiosity and playfulness. A moment of co-construction between humans and non-humans, as Barad (2011:124) notes, "this was a moment where one cannot take for granted that all the actors, actions, and effects are human".

Drawing on Turner's (2010) analysis of the Haraway's 'interspecies kiss', I sense something similar. The saliva and fluids (water-milk-juice) in this picture intimates a reproduction of humans and emotions that constitute a moment of pleasure while communicating through eyes, body movements and are driven by senses. What matters in this moment is what else the idea of the 'kiss' can do. Here, I found the thinking of Golding (2012:71) helpful to see the way 'orality' is at work. Golding, (2012:71), discussing the event of breastfeeding, extends the relation between mouth and breast to the tongue, the "voice, the listening, hearing, aurality, tempo, timbre, tone". This way of understanding orality goes beyond language boundaries. Miller's (2015) idea of treating the 'kiss' as an alternative to speech, especially in this event, where children

were still not using a shared verbalised language is interesting. Encountering 'kiss' as an affective relational mute gesture in moving and changing assemblages, is a way of returning (to) things, feelings, emotions, thoughts, that resist a single explanation, a solely discursive narrative. It evokes an entanglement of matter and materials among discursive pasts-presents-futures. The in-between-ness of the 'kiss', helps to de-centre the human element in this story and opens up the intra-activity with other bodies.

8.6 Summary

In this chapter the 'not-quite-a-kiss: more-than-a-kiss' assemblage was discussed and analysed using a diffractive analysis. Attempting to see and think with data in different ways, I tried to produce this story without privileging humans over non-humans while thinking, feelings, reading and writing along with food, young children, textures, liquids and theory. During a process of intra-actions and affective flows between heterogeneous entities, in-between the pear-milk-kiss assemblage ideas such as childhood sexuality and kiss, the threat of death: the preserve kiss, breastfeeding and the kiss, and the religious kiss, emerged contributing to the meaning-less-ness of this kiss in an attempt to see snack times in a nursery differently.

In the above stories presented in chapter 7 and 8, human bodies and objects are mutually implicated, and as Massumi (2002:95) highlights, "'body' and 'object' exist only as implicated in each other". Bodies are what they are and they become what they become after they have been assembled without being clear every time who or which is used by whom/which (Massumi, 2002:95). This new way of thinking changes also the way of conducting a research and analysing data. As Renold and Mellor (2013:38) argue 'Taking Deleuze and Guattari into the nursery has afforded us a way of mapping, seeing and attending to events (things, feelings, sounds, bodies) and has enabled a textured multi-sensory way of knowing".

This analysis has been experimental as I have attempted to stay away from static assumptions when it comes to eating. Each reader will see things differently, will feel differently and will make different connections between the images used in the analysis producing different thoughts. As Massumi (2008) argues, the aim was to use a

methodology that would help me to think and feel about ideas and theories which would allow me to see children becoming in multiple and affective ways. For instance, as a researcher, I now feel more able to pay attention to the many (and indeed infinite) heterogeneous elements that come together as part of ongoing events in the nursery. I feel better equipped to resist focusing on individual subjects, enabling to see the human as a more distributed system dependent on connections between all entities and not as one autonomous subject. Children could be perceived as emerging from, with and through these multiple connections, as the intra-actions produce entities in a mutual process of becoming (Barad 2007; Deleuze and Guattari 1987). Perhaps this also makes possible ways of understanding how matter comes to matter in relationships, such as the relationship young children have with food, and also how matter makes us, as humans, as children, practitioners and as researchers, matter (Youngblood Jackson, 2013), "... indeterminate, constantly forming and reforming in unexpected ways" (Coole and Frost, 2010: 10).

In the following and final chapter, I will discuss the key ideas produced by this research, the key challenges that I faced during its production, the limitations of the study as well as the contributions to knowledge it makes.

Chapter 9

When the writing needs to stop

“I see the posthuman turn as an amazing opportunity to decide together what and who we are capable of becoming and a unique opportunity for humanity to re-invent itself affirmatively, through creativity and empowering ethical relations and not only negatively, through vulnerability and fear. It is a chance to identify opportunities of resistance and empowerment on a planetary scale.”

(Braidotti, 2013:195)

9.1 Introduction

The production of this thesis assemblage has been a challenging experience, as I became immersed in ANT, NM and Posthumanism and came to terms with the complexity of this process. The ongoing effects of the interactivity of actor-networks that constitute the production of this thesis, have caused excitement, joy of discovery, sleepless nights, stress, anxiety, distraction, and a whole world of new thinking in relation to young children’s relationships with food. In addition to this thesis, the vibrancy of colliding entities has also produced a journal article entitled ‘Masticating ‘quality’ and spitting the bits out’ (Jones et al., 2016) (Appendix I).

Within this research assemblage, ideas have been questioned and confronted in a chaotic, messy and confusing atmosphere generated by the co-constitution of different languages (English and Greek, anthropocentric and posthuman, text and image etc.), a student, two supervisors and many more researchers and academics who informed this thesis through their thinking and writings. Looking back at my initial research jottings, I can see how much my thinking has changed, after hours of reading, writing, struggling, misunderstanding (and being misunderstood) and finally being in a place where I could work with some of the ideas of ANT, posthumanism and NM. My attention shifted to the intra-actions of humans (Barad, 1996), non-humans and more-than-humans, focusing on the capacities these assemblages might produce (Fox and Alldred, 2015; 2017). Amongst a hodgepodge theoretical toolkit of assemblages, affects, intra-actions and actor-networks, different knowledge was produced in the interstices of more traditional structures, themes and codes of qualitative research methods to generate a food

network, data analysis and now tentatively conclude my thoughts. This has been a continuous struggle, as I was persistently seduced by challenges to experience the world in new and multiple ways, coming to realise how important relations are in its production, as well as in the production of this research project.

In this research, there are no specific answers, nor an end(ing), as May highlights, “we do not know what a body is capable, nor how it can live...There is always more...” (May, 2005:172). This chapter momentarily stops in order to summarise my contributions to the field of understandings about young children’s embodied engagements with food. There is no definite conclusion as young children are always becoming something more, re-forming and changing while interacting moment-by-moment with a variety of entities in early years settings, something that it can be never finalised, fixed or stable.

9.2 Key ideas for discussion

My intention for this study was to focus intently on the ruptures afforded by the often overlooked ‘routine’ moments during eating, when something other and different occurs. These ruptures opened up tiny moments to closely examine the complexity of what is frequently dismissed in the encounter between humans and food. I became fascinated by the connections created between different entities during a mealtime assemblage, which always seemed to produce something new and different (Olsson, 2009).

This thesis assemblage therefore, is largely about relations. Relations are developed between empirical data, literature, my previous and more recent knowledge and experience of living around children and food, mixing methods and methodologies with similar onto-epistemological positionings, the social and natural worlds, photographs, videos and ... and ... and ... Exploring the relational character of the events (re)presented in the analysis chapters, I was able to imagine and work with the intricacy and intra-activity of their physical and biological composition, something that renders those events continuous, fluid and always becoming in their contributions to the production of the world(s) around us (Fox and Alldred, 2017). The “web of forces, intensities and

encounters” (Braidotti, 2006:41) that emerged between subjects and objects across chapters, produced multiple effects and challenges.

As the initial research focus was on relationships and the co-production of complex networks of food and children, I turned to methodologies that would enable a new way of thinking about, collecting, and engaging with data. ANT, NM and Posthumanism helped me to see, touch, smell, sense meal/snack times at the nursery differently, as I tried to stay engaged with all the human and non-human entities and their connections and performances over time and places. ANT’s plurality and heterogeneous character has helped me to move beyond the human, without excluding myself or the children, but thinking about ways to draw on the relations created between photographs, milk, moving images, smells, theoretical concepts, human faces, policy documents, ideas, views and behaviours of the teachers, hot food, a grasp, the researcher and the spaces.

NM, posthumanism and post-qualitative methodology offered alternative ways of approaching research, affording opportunities to produce new knowledge that might enhance current understandings of young children and their relationships with food. Particularly beneficial were the concepts of intra-action and affection that enabled a “suggestive, creative and visionary” reading of the data (Barad, 2012:50). Moving with the idea of developing diffractive analyses allowed the emergent entanglements between many entities to be explored, including what might be understood as different or resistant (e.g. the becoming monster assemblage) and what was new and possible (e.g. almost a kiss between two very young children during snack time). The relations (in) between co-constituting entities seemed critically more significant than trying to reduce events to a combination of single, already constituted entities, as such assemblages produced fascinating food networks and eating events.

Drawing on the work of Donna Haraway (2003; 2008) and Karen Barad (2003; 2007), the human animals in the research became heterogeneous assemblages composed of human and non-human actors. Humans in this work were never seen separate from their environment. For instance, children were seen in relation to the dining area they were located and moving in, as well as in relationship with the entities composing that

environment (e.g. tables, food, smells, toys ...), even if those were not present (e.g. their cultural background, their customs at home, their families etc.). Experiencing humans and non-humans as capable of reconfiguring the world (Barad, 2003:818) I began to understand more about how “matter and meaning [are]... mutually articulated” (Barad, 2007:152), and therefore, how much matter matters in this research assemblage.

My approach to the research became consumed by the need to experience, think about and document the heterogeneity of entities taking part in mealtime without prioritising human participants (Colebrook, 2002: 57). In doing that, the ideas of networks and assemblages seemed to productively recognise and draw in the powerfulness of the non-human world, which is often dismissed when thinking about young children’s development (Duhn, 2012). The tables and chairs where children sat to have their snacks, for example, produced unexpected experiences in relation to the food, the drinks, the practitioners, the children and their friends, the rules and the smells. In addition, place became part of the complex series of networks, working in between and amongst humans and non-humans (Duhn, 2012).

When re-reading the data, I developed a process of thinking *with* the observations in relation to children and food, in order to understand more about the multiplicity of embodied engagements. The range of emotional and affective encounters in circulation between myself as a researcher, the food and young children, helped me briefly sense the multiple influences that impact on children’s participation in eating events. Young children, food, feeding, drinking and eating emerged as complex elements producing and produced by multiplicities of other bodies, objects, institutions, technologies, cameras, photographs, food, practitioners, and senses.

My intentions were to produce a thesis that provoked the reader to see and sense beyond a more limited world of early education that seemed so clearly to demarcate the pedagogies, nutritional and healthy eating policies and the rules, expectations and assessments that surround young children’s behaviours at mealtime in the nursery. The purpose behind this intention was to explore how thinking relationally, allows the intra-

action of matter and materiality to transform readings of policy and enactments of pedagogies and practices in early years work (Rossholt, 2012).

9.3 Key challenges of the study

9.3.1 De-centring the human

One of the biggest challenges in this research project was to dismantle the habits associated with my human-centredness and the temptation to keep re-turning to 'I', to 'lose some of our hubris as humans' so I could engage, understand and take into account the capabilities non-humans have (Taylor and Ivinson, 2013:666). I recall the initial struggles I had with the idea of non-human agency. Being accustomed to different ways of thinking, for example the imperative to develop postmodern, child-centred early years research work previously, rendered the daily challenges to decentre the child and myself from the data, palpable. As I read and worked more with writings of posthumanism and New Materialism, I began to experience the way data was working on me and visa versa. It was then I began to understand more about how my self (my body), the sociocultural space and the context all contributed to the production of events described in the analysis chapters. I began to sense my self as implicated and part of the knowledge production, Barad's ethico-onto-epistemology (2007), as researcher, children's body assemblages, food networks, smells and other sensations, material objects such as tables, the mobile phone all entangled, working relationally. Each one dynamically entangled with a number of other entities, all together producing meanings (Taylor and Ivinson, 2013). Bodies became intra-actively entangled in my thinking and experiencing of the nursery, coming together through dynamic and co-constitutive forces (Barad, 2007 and Bennett, 2010). I was becoming with the data while being embodied and interacting with them. Being entangled with the data I was "read[ing] with the data, understanding it as a constitutive force, working with and upon me in the event of reading it ..." (Lenz Taguchi, 2012: 274-275). The data-human assemblage in this research offered new insights as it helped me to understand the way data affects me and how I affect data,

producing research where my senses are fully engaged onto-epistemologically (Barad, 2003, Lupton, 2017).

9.3.2 Bringing theory to practice

As the research was composing and constantly reforming, an additional challenge faced was to avoid the production of another ‘*how to*’ document / tool kit / guide. Although the data took a traditionally qualitative form (photographs, fieldnotes), my intention was to “discover conditions for the production of something new, to be creative . . . in order to extract from them new, non-pre-existent concepts” (Semetsky, 2006:2). To manage such a complex system of knowledge production required the thinking and re-thinking of ways the thesis could be organised to avoid the form of a structured guide. When starting this project, I realised quickly that such linear way of undertaking research, where perhaps reading occurs, followed by data collection, then analysis and writing up, would not resonate with a relational approach to research. However, I am not claiming here that the processes of this thesis were better than any others. Sometimes decisions are made about what kind of processes, structures and organisation resonates most appropriately with the paradigmatic positioning of the research and the topic being explored. I took on this challenge in order to be able to produce understandings about the topic under investigation that I believe would not have been produced via a linear procedure. This work unsettles the limits of research and analytic processes adopted by more conventional social constructivists/interpretivists/positivists, in search of new ways to understand this topic. Becoming familiar with relational ontology, ANT, NM and posthumanism, I saw the research assemblage (including the acts of engaging with the food network, experiencing data production and analysis and documenting these processes) as complex interactions that were always affecting and being affected by each other.

Briefly re-collecting my composition in/of this re-search, the writing up process of the data for example, was an entangled way of recording, remembering, evoking, and speculating (observing); it was an ongoing adventure as each time I read it, I was bringing something new to the assemblage. It is a past-present-future melee/assemblage of

thoughts, feelings, sensations, notes, recollections, photographs (memories of light captured falling on a light-sensitive surface), nostalgia, and affects. The observational data were transcribed and then read and re-read very carefully several times. In addition, the photographs were explored for long periods of time and discussed with my supervisors, trying to think about the complex relationships between the heterogeneous entities participating in each event and the outcomes of these associations. However, understandings cannot be seen as separate from the design and the data 'collection' processes, so interpretations emerged from an interesting series of materials and artefacts, embodied and sensory memories of fieldwork that informed the analysis.

In addition, as an embodied researcher, my own becomings were emerging while affecting and being affected by the food, the place, the smells, the noise, the practitioners, the thesis, the reading and writing up process, the photographs, the videos, the University, the meetings with supervisors, the teaching etc. During the journey of becoming researcher, I went through some stressful, pleasurable and exciting moments, but also some uncertainty while being part of nursery mealtime. Although, I did make some notes while watching the children eating, I accepted the challenge of leaving the pen and paper on the table and focusing only on my phone while clicking and capturing, almost 'trapping' moments that were intense enough to constitute 'data'. My iphone (along with all of its technology, geopolitical tensions, history, economics, colonial exploitations, status etc.) and I became part of the other bodies participating in that assemblage that kept reshaping and changing the idea and form of 'child', producing uncertain, exciting and unexpected data that no-thing / no-one could have predicted.

Becoming increasingly flexible about the ways this thesis was produced, data, theoretical concepts, methodological frameworks, photographs, videos, notes, and draft chapters were all emerging simultaneously, each and together transforming ways of thinking about and writing this thesis. This flexibility remained a struggle for me, as I found myself constantly drawn back to familiar research territory where projects aim to make recommendations for the 'solution' of a 'problem'.

9.4 Limitations of the study

In the following section I will discuss the limitations of this study. It was repeatedly noted throughout this thesis that the world is made up of assemblages and that agency is distributed between humans and non-humans (theoretical traditions that are shared between ANT, NM and posthumanism). However, the de-centring of the human remained an on-going struggle. As this is the first research project where I have put posthumanism to work, I found it difficult to delegate values, duties and capacities to non-humans as I was used to viewing “human subjects as the appropriate focus of (social) research” (Hodgetts and Lorimer, 2014: 291). Every time I tried to get a sense of what an assemblage might be and discuss their heterogeneous composition, the human figure kept re-turning as dominant, something that I had to keep in check throughout the production of the thesis. It was a real challenge to resist assumptions that the human is superior and separate from the empirical materials of this research (Lather and St Pierre, 2013). This challenge was not surprising given how ‘logical’ it seems in an anthropocentric world full of human/social preoccupations and concerns and after so many generative years struggling for children’s rights and advocacy (Pacini-Ketchabaw et al., 2016).

In addition, although this research was committed to developing a non-traditional thesis, there are traces of a literature review, as well as methodology and analysis chapters, which seem to adhere to a more traditional structure. One of the justifications for this was because the research project needed to be assessed against specific criteria and more a traditional organization and structure seemed the most efficient way to ensure and demonstrate how these had been addressed. However, although the thesis structure is quite traditional in so many ways, the non-traditional processes involved in the production of this research are located in the flows, intensities and engagements of the reading, thinking, remembering, discussing, feeling, imag(in)ing that produced the ever-changing food network and the ongoing diffractive analyses. Finding ways to both textually and visually re-present, as well as unsettle these flows, nodes, knots, fibres and meshworks was a challenge.

Lastly, the findings from this research cannot be applied universally as this is a small study, situated locally and relationally (Pacini-Ketchabaw et al., 2016). The data cannot be generalised as there is no stability in the assemblages under investigation. However, this study has enabled thinking about the importance of relational studies, more generally and ways to productively unsettle the spaces constantly emerging around us, tentatively and slowly learning how to be actively involved in worlds which are not only about humans (Pacini-Ketchabaw et al., 2016).

9.5 Contribution to knowledge

The following section summarises the contributions this work has made to the field of early years, as well as to posthuman and NM researchers and academics. More specifically, it will examine how relational thinking could augment the ways young children are experienced in settings, while discussing the practical implications for early childhood education.

The significance of this work is multiple. Firstly, there is a need to continue challenging the idea of children as always being ‘known’ or ‘knowable’, for example in need of protection, restriction and one-size-fits-all guidance (Brophy, 2016). Following Sherbine (2016), childhood is currently defined by what comes after, by ‘the other’. Through the complexity of the food network and analysis chapters, this research has explored ways the “... the “past” and the “future” are iteratively reconfigured and enfolded through one another” (Barad, 2007:383). If children’s ‘presents’ are overly structured, prescribed, constrained by a series of policies, pedagogies and practices that resist being open to their possibilities, opportunities to become more mind- and body-ful of the complexity of children’s potentialities will be overlooked. As Mac-Naughton (2005:121) highlights, we are never in a ‘fixed and final’ stage but we are always becoming with values, beliefs, ideas, cultures, politics and in general with the environment we live and operate in as well as the opportunities these experiences offer.

This study has foregrounded the importance of thinking about children’s becomings, being particularly careful about the way relationships are interpreted and shaped and

how meanings are produced within this process (Mac- Naughton, 2005). For instance, as becomings are never stabilised and finalised, Mary is always experimenting with her expressions, her behaviours and mealtimes. The struggles depend on the relationships and connections developed between her and the other components within assemblages that will transform, and be transformed by, her. Within this becoming monster food assemblage, bodies, language, objects and ideas are moving as parts of a larger assemblage that draws in many others, producing new emotions, behaviours, actions, experiences and distractions at mealtimes.

Secondly, the nursery environment itself has become an important assemblage in this research, raising critical points for developing early years pedagogies and practices. In the two events produced in the analysis chapters of the thesis, where eating happened in the same room as playing and a number of other activities, the role of the non-living entities' was crucial in influencing the way living entities think, feel, perform, take form and are co-constituted (Lenz Taguchi, 2010). For instance, chairs, tables, food, sounds, smells etc., are able to transform Mary's thinking and Andy's acting while being in the particular space they are located in. Furnished rooms are needed in order to be practical and convenient and to serve perceived needs. Empty houses are very difficult to inhabit/occupy. As the psychologist James Gibson (1979) explains, when a space, a room, is furnished, then it enables its residents to conduct their daily activities and make their life easier (e.g. they have bed to rest their body, shower, pens, forks, lights, water, and ... and ... and ...). However, the arrangement of the furniture often produces a particular discourse (Youngblood Jackson, 2013). In Mary's and Anna's event, there is a strong discourse intimated by the 'dining' structure set up in the room, compared to the more casual and relaxed ways of being, presented at snack time, in Bianca's and Andy's story. The material agency of the furniture in the first event's room offers limited flexibility and openness to the children, something that could be re-considered by the practitioners in a school setting. The study contributes to new ways of thinking about nurseries as material and sensorial spaces, where affects and objects should not be overlooked by the curriculum (Osgood, 2014). Objects participating in nursery assemblages, are not just objects randomly appearing in that environment. Objects are fundamental parts of emerging, changing, re-forming subjectivities as young children and objects are mutually

implicated as active participants in the material production of themselves and each other, indicating the importance of focusing on the material and affective relations (Rossholt, 2012).

Thirdly, as explored in the food network chapters, eating, food, feeding and mealtimes are embedded in vast and continually changing social, political, cultural, and economic contexts and for this reason, new ways of engaging, seeing, and feeling through, and with, food will enable nurseries to produce aspects of childhood and children's lives differently. Eating can be a social and cultural event where food is prepared and consumed with the help of a number of actors and actants (Sumner, 2013). It can take political form, when people refuse to eat to make their voices heard. For instance, the boycott against Nestlé in response to messages they used to promote formula instead of breastfeeding in developing countries. It is an economic act on occasions where people try to support local products, even though they might cost a bit more (Sumner, 2013). It is an environmental act where organic food is promoted and it is a pedagogical act when it includes learning, teaching, discussing, reviewing, sharing, and celebrating (Sumner, 2013).

The eating events in the literature and analysis chapters draw on this complex backdrop to open up the ways children and practitioners might learn with and through food and the process of eating. This relates back to chapter 5 where I discuss an ontology of immanence and the impossibility, according to Deleuze (2001), of separating the one who is learning from what is being learned. For Ingold (2013) learning is a continuous and embodied process as when young children make things, or practitioners read and respond to things, they are working *with* them and becoming *with* them. The interesting events composed in the analysis chapters raise important questions for developing early years practices in relation to this. Andy and Bianca for example, were becoming *with* the milk, saliva, pear juice, glasses, mat, each other. However, it could be argued that the practitioner's experiences of this assemblage became stifled by the structured discourses, policies and pedagogies of health and safety, child protection and others that striated her responses and guided her interventions. She seemed to be learning *with* well-rehearsed rules and habits and not able, at that time, to explore other potentialities.

Snack times reflect discourses of pedagogy produced by policies and enacted (not always passively) by practitioners who make decisions about what and when children can eat (Rossholt, 2012). Bianca and Andy were connecting with each other and the practitioner, as well as the discourses that shaped, but did not seem to constrain their relationships with milk, plastic cups, pear skin and juice.

As Rossholt (2012) highlights, policy makers and practitioners need to become more sensitised to how eating happens in between humans, non-humans and discourses, perhaps becoming more attuned to how Bianca and Andy were caught up with the material around them (e.g. the milk) following the flows and feelings that came with them. The children were becoming with the material that was available to them, the material at the same time, opened itself up to new uses and meanings from the children as they become something else (Lupton, 2017). For instance, the milk in Bianca's and Andy's glasses, although steeped in healthy eating agendas, milk controversies and breastfeeding narratives, also became something much more than the product colonised by guidelines and successive governments in order to nourish children. In its singularity, it was simultaneously a complex, fluid in dynamic relation to all the other liquids participating in the kiss assemblage, producing a contagious and affective atmosphere in the nursery.

In addition, relational agency was particularly useful idea when thinking and conducting research that includes both humans and non-humans. If we think relationally then children can never 'be' problems or 'monsters' as the problem or monster is always made in relation to a host of entities. This suggests a very different approach from the current focus on behaviourist techniques so often used to understand and manage children's development.

As Taylor and Giugni (2012) suggest, children need to be given the space to experiment and explore the worlds they are deeply embroiled within, as this will enable them to generate knowledge about the place, the events, the people, the objects associated with them. By doing this, we acknowledge the agency of children, objects, affects, and the physical as well as atmospheric environment and each of their abilities to do and become

what they can, often going beyond school policies about readiness and curriculum (Osgood, 2014). At the same time, if practitioners and educators, become more open to learning *with* possibilities and potentialities, acknowledging the role of material-discursive participants that work with non-human entities in nursery events, such as smells, food, movement, colours, plates, furniture, together with human entities, different pedagogies can take shape (Kontopodis, 2013; 2015: 2016). For example, as Rossholt (2012) argues, becoming more attentive to eating, crying, shouting, dancing, spinning and kissing, practitioners can tune into instances of the child's body producing hunger, playfulness, tears etc. Therefore, researchers but also practitioners might learn to become more open to the body's transformations in different contexts as the association with the material produces new ways of becoming subject (Rossholt, 2012). A few examples of how specific practices might impact on learning differently were shared with the practitioners during my last visit to their nursery, opening up with them, some of the findings of the research (more information can be found in Appendix VII).

Many of the previous studies about food or eating, focus on the child and the human without looking for the forces of the material world with which the children grow. It was interesting to sense that despite a variety of studies focusing on children's eating habits and behaviours, so little research has been done investigating the non-human factors participating in children's eating and affecting their complex relationships with food in a nursery. This study contributes to a small, but growing field of literature in this area that challenges the anthropocentric gaze.

More specifically, the main argument of this work comes down to the different approach taken towards food. That was achieved through unsettling dominant discourses around eating and challenging dualistic distinctions such as healthy vs unhealthy, human vs non-human, socially constructed child vs material/post-human child, good eater vs fussy eater, well behaved vs naughty/problem and ... and ... and It was shown that a singular narrative is not adequate, nor sufficient when revealing the complexities of eating in an early years setting. By turning data over and over, folding them into theories, methodologies, policies, traditions, experiences and ... and ... and ..., different and vital readings were produced in-between those binaries, taking this research beyond

simplistic readings and linearity. This approach to thinking about children's relationship with food opens up some of the complexities of food, that embodies political, economic, material, social, cultural, and historical messages.

This thesis opens up possibilities for policy and practice to be approached differently when thinking and acting with relationality and embodiment. As noted above, the role of the practitioners becomes more complex when realising the effect of the role of the environment on children's becomings. The practitioners' pedagogical and curriculum planning are produced in different ways as the relationality between human and non-human entities are taken into consideration. At the same time nursery-based 'policy makers' can become more 'response-able' (Barad, 2014:178) to the other by creating new opportunities for engagement with diversity and difference. Translating the role of newspaper campaigns about breast-feeding; the response-ability of the nursery in preparing snacks and lunchtime meals; as well as the economic, political, cultural and historical factors influencing food choices, all play a part in how policy comes into being and instrumentalised in/by early years settings. If food and eating are complex and heterogeneous entities, always in flux, the associations between the entities composing nurseries' and families' food networks are never discrete, stable or fixed. Policy and practice need to become more sensitive to the families' and children's needs, as their young bodies are always becoming while being entangled with a number of subjects, discourses, habits, objects, etc. Unfortunately, singular narratives (usually based on western, middle class ideals) about breastfeeding practices, healthy eating, food consumption and ... and ... and ... have become normalised as 'truths', and have become internalised as beliefs, something that it is promoted daily through media, policies, the government and the social environment around us. Dominant assumptions about the 'universal/normal child' and a 'one-size fits all' approach in early years settings need to be revised. There is a need for a system that could recognise the values of diversity, leaving aside categorisations, over-supervision, power, labelling, rejection, marginalization and binaries, and recognising and valuing diversity of perspectives. There is no one 'truth' or not one approach when moving towards a more democratic and ethical education. Dahlberg and Moss (2005:73) talk about the 'ethics of care' where ethics are seen as a 'creative practice' and ethical decisions need to be taken according

to the situation rather than following universal rules and policies. There is considerable space for academics to investigate the role of non-human entities in early years settings and spend time exploring the effects of the complex relationships developed between heterogeneous entities. Research should welcome experimentation and movement into early childhood education and alternatives are an opportunity for change and improvement.

9.6 Theoretical and methodological frameworks

The theoretical and methodological frameworks offered up by ANT, Posthumanism and NM forced thinking beyond the human subject (Lenz-Taguchi, 2009; Olsson, 2009). Being able to decentre the human, enabled feeding, eating and other food-related engagements with children to be perceived as something continuously in production. Thinking, listening, sensing, experiencing with children, childhood, policies, theoretical and methodological frameworks, and particular research questions, opened up the possibilities of learning with (and about) eating events in the early years.

The practical implication of research coming out of posthumanism, NM and ANT is that it allowed me as re-researcher to re-turn identities as relationally co-constituted with other objects, subjects, spaces, places exploring how the becoming child works, re-works and negotiates ways of being and becoming what is 'appropriate' (or not) during mealtime. Barad writes about the process of re-turning,

...as a multiplicity of processes, such as the kinds of earthworms revel in while helping to make compost or otherwise being busy at work and at play: turning the soil over and over or otherwise being busy at work and at play: turning the soil over and over – ingesting and excreting it, tunnelling through it, burrowing, all means of aerating the soil, allowing oxygen in, opening it up and breathing new life into it (2014: 168).

This process of re-turning, 'breathing new life into' the earth, takes me back to the role of practitioners, who are always under immense time constraints and performance pressures. As people who work closely with young children, they need to be given space

and 'permissions' to slow down their work, allowing themselves to become more attentively attuned to tiny nuances, ruptures and all things traditionally overlooked in the complexities of nursery assemblages. New CPD training, spaces for diffractive interventions to allow time for surprise, curiosity, intrigue, fear, excitement and fascination will allow them to overthrow the certainties and fixity of 'what they thought they knew', about children, childhood, to re-consider the sheer magnitude, and implications for their future work, of material-semiotic entanglements when food encounters children.

As Osgood and Giugni (2015) suggest, when doing posthumanist and NM research, we need to be prepared for all the new opportunities created in order to move beyond curriculum frameworks and pedagogical practices where children are seen as fixed into place or deficient because they do not fit into any of the pre-suggested categories. This research will also inform my work in a new role as Lecturer in Early Years and Childhood Studies, as I work with emerging and future practitioners over the three years of their undergraduate degree to realise the idea of re-turning knowledge, theoretical ideas, empirical materials for scrutiny. I look forward to exploring with students, the affective relations between entities to interrogate something of what emerges in-between. As we work with and re-turn concepts, taken-for-granted knowledges or data over and over, allowing them into and out of our bodies to mix with matter and materials, discussing, sensing, tunneling through them, burrowing, augmenting and unraveling them, we make them more complex. This is a new approach with undergraduate students at Manchester Metropolitan University, but a way of working I look forward to exploring.

9.7 Re-turning myself

Committed to new ways of thinking and discussing nursery events, I now re-turn myself as a researcher to the events that have emerged, asking myself and thinking about the ways I have been affected by the research project and redefining my relationship to the material (Lenz Taguchi, 2012). I am surprised how much I have been affected by this research. My initial thoughts assumed a reality and a world which were fairly fixed, stable, and generally accepted, but when I managed to move beyond the material

conditions of subjects and objects, I realised that this idea would only constrain what I might be capable of experiencing.

For example, discussing Bianca's and Andy's intra-action with the pear and the milk in a process of becoming, is not just about how they each and together express their thinking and the way they act, or about the way I describe the story. It is also about the way I am becoming as a researcher whilst reading, thinking and engaging with Andy, Bianca and the environment that surrounds them (Mazzei, 2013). I see my self being touched by the food, the children, their voices, and the practitioners as we were engaging during the eating process. As I first arrived at the nursery and sat with the children around the tables, trying to familiarise myself with the environment and the procedures of meal- and snack times, I found myself embodying materiality whilst becoming with the smells, the taste, the voices, the food, my appetite, and the children sitting around me.

The re-search process became about the way I saw myself intra-acting with other human and non-human entities in that event and how our network(s) were being co-produced in analysis. The events around the skin of the pear, Andy's unwillingness to eat it, but his desire to play with it, worked as a generative force. As a re-searcher, I felt it was this productive desire that helped me become part of this assemblage, and gave presence to the event through my writing (Deleuze, 2002). Thinking and feeling in this way, makes me consider how time, culture, age, language, people, ethics, customs are so different; I felt that this momentary flashback throws me unexpectedly back to reality. This movement of past-present makes me wonder about the future both as a practitioner and as a parent.

The data, the theoretical concepts, the components participating in those event-assemblages being explored, and the methodology all combine to produce something of me. This piece of work is a co-production of the relationships developed between myself and all the other subjects and objects participating in this research-assemblage in the process and event of acting on each other. As Blake and Stearns (2015) argue, we mutually change when we are in relation to the outside and with other people and other materials, we all reposition according to the time and place we are located in.

Therefore, as a Ph.D. student, although my role is to produce this thesis, it has also produced me, I have written myself “into the text as the body who is accountable, who is desiring readership, who seeks an audience, who has constructed the performative and analytic texts” (Hickey-Moody, 2015:190). The production of this work is relational. As MacLure (2013b) argues, the wonder of data continually drives us into new places and into new productions of papers, data, and new knowledge. In this process we cannot force any objects or subjects to collaborate in this production of wonder but the effect of such a collaboration includes new knowledge (MacLure, 2013b).

9.8 Summary

This thesis contributes to the work of early childhood in many ways, approaching it in a relational way. Food is one of the leading actors in the events discussed. It is an entity in itself which is complex and multiple, as it is an assemblage of chemistry, biology, nature, sociology, psychology, economy, politics, culture and ... and ...and ... Re-searching food has helped me to sense my own embodiment, as Bryant argues, we eat the sun, the air and the entire ecology and through our mouth we are tied to nature, politics, economics, biology, culture, religion ... Food is also highly social as it determines our participation in classes and ethnicity (Bryant, 2015). Food for Bryant (2015) is not quite material, nor is it a simple text. It is this entity where culture and nature converge in a zone of indiscernibility.

This chapter has mapped the important contribution this work has made to the field of early childhood studies and its potential for transforming something of the early years pedagogies and practices associated with eating and children’s complex relationships with food in a nursery setting. This work has been an experimentation into the way ANT and NM could work together with the contribution of other theories to generate important new knowledges.

Finally, re-turning an old Greek poem ‘Ithaka’ (see page 5) that resonates with the experiences of producing this study, I want to discuss what Ithaka means to me in this

research. This poem gestures to the complexities of life, with all its obstacles and hopeful moments that it also includes. My journey definitely felt long, full of 'Laistrygonians', 'Cyclops', and 'angry Poseidon', but following Cavafy's words, I tried to stay strong, focused, motivated and passionate, keeping 'my thoughts raised high' and keeping my 'Ithaka' always in my mind. As a result of these experiences that made me struggle but also made me feel proud and more experienced, I experienced a marvelous journey that opened up new worlds and different ways of thinking; a journey that was so productive. I conclude that my Ithaka is this journey, a journey full of heterogeneous entities and many challenges that were unexpected and surprised me and left me excited about what is about to come.

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Appendix I: Masticating ‘quality’ and spitting the bits out

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Abstract

This article considers what the repercussions are when the concept of ‘quality’ is examined within the epistemological and ontological theoretical shifts that are afforded by post-humanism. In particular, Braidotti’s configuring of thinking as ‘nomadic activity’ and the need for ‘process ontology’, together with Massumi’s ideas relating to ‘activist philosophy’, create the necessary conceptual space for thinking differently. The article takes as a point of departure ethnographic data that has emerged from the twin locations of Norway and England, which broadly centres on some of the practices, habits and mundanities that are associated with Norwegian and English children (aged between two and four) eating food whilst attending their *barnehagene* or ‘preschool’ setting. It is within the milieu of eating that the authors take up the challenge of confronting ‘quality’, where they question whether it is possible to put to one side a universal standard so as to consider other potentialities. Inevitably, the authors conclude with more questions than answers.

Keywords

Becoming, event, nomadic activity, process ontology, quality

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Introduction

This article considers what the repercussions are when the concept of quality is examined within the epistemological and ontological theoretical shifts that are afforded by post-humanism. In particular, Braidotti's (2006) configuring of thinking as 'nomadic activity' and the need for 'process ontology', together with Massumi's (2011) ideas relating to 'activist philosophy', create the necessary conceptual space for thinking differently. The article takes as a point of departure ethnographic data that has emerged from the twin locations of Norway and England, which broadly centres on some of the practices, habits and mundanities that are associated with Norwegian and English children (aged between two and four) eating food whilst attending their *barnehagene* or 'preschool' setting. It is within the milieu of eating that we take up the challenge of thinking differently, including thinking differently about a concept of quality, where we question whether it is possible to put to one side a universal standard so as to consider other potentialities. Inevitably, we conclude with more questions than answers.

The article is divided into four interlinking sections. The first section focuses on why there is a necessity to 'think differently' both in broad terms and, more specifically, in relation to 'quality'. We try to make clear why this is especially difficult for each of the authors, given their affiliation to the field of early years education. In the second section, we present some of the conceptual tools with which we have an ongoing engagement, which, in addition to nomadic activity, process ontology and activist philosophy, also include 'becoming' (Deleuze and Guattari, 1988) and 'event' (Deleuze, 1990). In the third section, we focus on some of the mundanities of eating and use them as a conduit for rethinking the concept of 'quality'. And, in the fourth section, we ask further questions, which work in directing attention to other ways of (re)thinking quality. Through each section we struggle, Sisyphus-like, with the problematic burden of 'quality'.

Thinking differently

In both Norway and England, the students for whom we have responsibility will leave their respective universities in Oslo and Manchester in order to become teachers in a field that has been, and will continue to be, subjected to a political gaze. In both geographical contexts, it is a gaze that has a similar vision, where 'quality' is implicated in an agenda that is directed at raising educational standards both nationally and globally, engendering a stable society and securing economic stability. Within both countries, *barnehagene* and preschools will

exist within structural mechanisms, including policies (e.g. Department for Education, 2015a, 2015b; Norwegian Ministry of Education and Research, 2009) and curriculum guidelines (Department for Education, 2012; Steinnes and Haug, 2013), as well as inspection regimes (Lekhal, 2013; Office for Standards in Education, 2010/11; Waldegrave, 2013), which are targeted at ensuring that the teaching, learning and other services that settings provide are of 'good quality' (Ball, 2003, 2008; OECD, 2013; Trippestad, 2009; UNICEF, 2000). Our students will, by necessity, become implicated in numerous technologies aimed at securing 'quality' education. They will be involved in making judgments against a normalized standard of what does and does not constitute quality. Such rationalist approaches to both conceptualizing and materializing quality are endemic within early childhood education globally.

It is a notion of progress that has its roots in modernity, where enlightenment thinkers such as Kant (1784) perceived the use of reason as a move from immaturity to maturity. 'The development of rational forms of social organization and rational modes of thought promised liberation from the irrationality of myth, religion, superstition, release from the arbitrary use of power as well as from the dark side of human natures' (Harvey, 1989: 12). As Kellner and Lewis (n.d.) highlight:

'Kant's liberal humanism is encapsulated and articulated within his theory of freedom'. They continue: 'Kant believed that pre-enlightenment superstition, cruelty, and ignorance would be replaced by both individual liberty and universal peace'. It is possible to appreciate how Kant perceived the project of enlightenment developmentally, within a linear trajectory. In his essay 'What is enlightenment?', he writes:

Laziness and cowardice are the reasons why such a large part of mankind gladly remain minors all their lives, long after nature has freed them from external guidance. They are the reasons why it is so easy for others to set themselves up as guardians. It is so comfortable to be a minor. If I have a book that thinks for me, a pastor who acts as my conscience, a physician who prescribes my diet, and so on – then I have no need to exert myself. I have no need to think. (Kant, 1784)

In order to effect this move where irrational immaturity gives way to the rational, thinking subject, the educating of children has and continues to be managed and governed. There is, then, a substantial history both within England and Norway where the management of children, including their health, welfare and education, has been linked to an overarching narrative of rational social betterment, where the discourse of liberal humanism permeates everyday practices – where what it means, for example, 'to be kind' or 'to be fair' is universally assumed, habitually practised and manifested in what is known as and referred to as 'common sense'.

The possibilities of thinking differently about ‘quality’ are made especially difficult because it is closely aligned with an overly rationalist perception of education, which can be measured, producing quantifiable results that can then represent ‘quality’. This has direct repercussions for our students once they are practising where they will teach within the shadow of these results, including those that emanate from tests such as the Programme for International Student Assessment (PISA), which is administered by the Organisation for Economic Co-operation and Development (OECD). The recent results from PISA, which is a global measure used to test the mathematics, reading and science attainments of 15-year-olds, were perceived by the right-wing governments of both Norway and England as disappointing. The fallout from these results has repercussions in terms of early years teaching, the curriculum and children’s learning, where there is the rationalist view that getting it ‘right’ in the early years will ensure subsequent success (Calman and Tarr-Whelan, 2005). As noted in an open letter from 60 academics from around the world to the OECD’s director of the PISA programme:

By emphasising a narrow range of measurable aspects of education, PISA takes attention away from the less measurable or immeasurable educational objectives like physical, moral, civic and artistic development, thereby dangerously narrowing our collective imagination regarding what education is and ought to be about.

The letter continues:

As an organisation of economic development, OECD is naturally biased in favour of the economic role of public [state] schools. But preparing young men and women for gainful employment is not the only, and not even the main goal of public education, which has to prepare students for participation in democratic self-government, moral action and a life of personal development, growth and wellbeing. (Andrews et al., 2014)

It is within and against this context where we find ourselves tethered to modernity’s legacy, but where we also seek exits from its tenacious hold. Previously, we have turned to theoretical approaches, including post-structuralism, feminist post-structuralism, deconstruction and queer

theory, so as to think differently. Such approaches set their sights on eroding the foundations of enlightenment logic. Yet, as Braidotti (2009: 241) remarks: ‘in spite of the sustained efforts of many radical critics, the mental habits of linearity and objectivity persist in their hegemonic hold over our thinking’.

Similarly, our work does permeate programmes of study where, in both Oslo and Manchester, students are encouraged, for example, to put pressure on particular constructions of the child. They are invited to move away from and actively resist universal notions of what constitutes ‘the child’, where the question of ‘Who is

the child?’ (Dahlberg et al., 1999) is a recurring, reflexive question. This questioning is positioned within a wider political and post-structural context of study, where ‘quality’ could also be rethought as one of those ‘weasel words’ (Watson, 2004), meaning every- thing and nothing – a comfort term – that is, all things to all people. Nevertheless, we question whether reflexivity and a persistent distrust of language are sufficient antidotes – both for the stu- dents and for ourselves – to the fallout from neo-liberalism.

If, as was suggested previously, the effects of ascertaining what qualifies as ‘quality education’ result in ‘a narrow range of measurable aspects of education’, then we have to, first, re-engage with the concept of ‘quality’ and, second, use our ‘collective imagination’ to think differently. We argue that, in order to do this, there is a necessity to engage with a different logic – a different way of thinking. We will go on to argue that it is only by engaging with a different logic that it becomes possible to foreground ‘immeasurable educational objectives’. We will also argue that it is in and amongst the immeasurable stuff of education that we might glimpse ways of rethinking ‘quality’.

Working within a different logic: Conceptual tools that make a difference

In this section, we attempt to define both ‘process ontology’ and ‘activist philosophy’, whilst also beginning to work with both.

In general terms, process ontology is based on the premise that being is dynamic, and that the dynamic nature of being should be the primary focus of any comprehensive philosophical account of reality and our place within it. This emphasis on the dynamic nature of being is important to Rosi Braidotti. She uses it as an opening to interrogate the slash that has traditionally been placed between nature and culture. She argues that the boundaries between the categories of the natural and the cultural have been displaced and to a large extent blurred by the effects of scientific and technological advances. She notes that whilst, for example, genetically modified food, advanced prosthetics, robotics and reproductive technologies are familiar facets of our globally linked and technologically mediated world, they do nevertheless call into question what is real, natural, cul- tural, artificial, and so on (Braidotti, 2013). ‘The very notion of “the human” is not only de-stabi- lized by technologically mediated social relations in a globally connected world, but it is also thrown open to contradictory re-definitions of what exactly counts as human’ (Braidotti, 2006: 197). What begins to emerge is a vision or an idea of the individual as a ‘relational process’ (Braidotti, 2013: 41). Braidotti, whilst wanting to highlight movement as encapsulated within the notion of ‘dynamic’, rejects the term ‘being’, favouring instead the concept of ‘becoming’. As she notes: ‘I define the critical posthuman subject within an eco-philosophy of multiple belongings, as a

relational subject constituted in and by multiplicity' (Braidotti, 2013: 49). Braidotti (2006: 133) understands 'becoming(s)' 'as a pragmatic philosophy that stresses the need to act, to experiment with different modes of constituting subjectivity and different ways of inhabiting our corporeality'. Following Deleuze and Guattari (1988), she summons 'nomadic thought' as a resistance to thinking that is underpinned by the rational Cartesian subject. However, she is at pains to stress that nomadic thought is not a replacement or a development of a new 'master theory'. Rather, it is about 'multiple micro-political modes of daily activism' (Braidotti, 2006: 133).

Nomadic thought directly challenges what Deleuze and Guattari (1988) refer to as an 'arborescent' model of thought, where thinking is marked by its insistence on totalizing principles, binary thinking and dualism. MacLure clarifies further:

It [arborescent thought] organises life in terms of genus and species, categories and instances, and can only cope with difference through relations of identity, similarity, analogy or opposition: that is, relations based on resemblance or difference among already-formed entities. (MacLure, 2011: 997)

An 'arborescent' model of thought includes representation, which, as MacLure (2011: 998) explains, 'doesn't just refer to the mediation of reality by language'. She continues:

Representation is the entire logic of static hierarchy ... Within the schema of representation, things are frozen in the places allotted to them by the structure that comprehends them, and are not able to deviate and divide from themselves to form anything new. (MacLure, 2011: 998)

Whilst letting Braidotti's 'process ontology' seep into, enfold, agitate and disassemble our customary practices of thinking, representing, ordering, structuring, and so on, we also want to take up a further challenge of engaging with Brian Massumi's 'activist philosophy'. It is a philosophy that 'actively' displaces cognition to 'pure experience'. He writes: 'The displacement from cognition ... to the messy middling goings-on of pure experience in all its potential and complexity, has far-reaching pragmatic consequences' (Massumi, 2011: 11). One specific consequence centres on both the mind/body and subject/object dichotomies. Massumi argues that these binaries are hailed both as ways of knowing and, from there, 'into a hierarchy between modes of practice'. In brief, 'activist philosophy refuses to recognize these divisions as fundamental or to accept the hierarchy they propagate' (Massumi, 2011: 12). Because Deleuze and Guattari influence both Braidotti and Massumi, it is possible to spot similarities in their work. Yet there are also differences. Massumi argues that 'ontological' does not fit activist philosophy. He writes: 'Process is only perishingly about being. But it is everywhere and always-about powers of existence in becoming. The concerns of activist philosophy are ontogenetic more

than ontological' (Massumi, 2011: 13). Massumi thus places emphasis on the endeavour – that is, the practice or the doing of thinking differently. Here the task is to foster and inflect, rather than try to master. It is also an ethical endeavour since it is to ally oneself with change, allowing for an ethics of emergence. Massumi (2002a: 12) is not therefore interested in forms of critical thinking, which he feels has become reduced to identifying points on 'a stable map of the always already known'. In his view, interpretation through the overlaying of this map can only capture certain moments and certain experiences, which will invariably reflect the framework they are interpreted through. For Massumi, such critical impoverishment means that cultural theorists consistently miss both the matter of bodies and the unceasing movement that constitutes the process of becoming. And without this investment in movement between states and bodies, Massumi (2002a: 3) asks: 'how do we account for, let alone encourage, change?'

The milieu of eating

The photograph in Figure 1, taken in 2015, is an extract of ethnographic data drawn from a doctoral study that is currently being undertaken by one of the authors, Thekla Anastasiou. The aim of the study is to understand children's relations with food so as to appreciate the emotional and affective engagement children have with food. Such an appreciation may contribute to understanding why



Figure 1. Lunch time.

some children may enjoy the experience of eating food when in their preschool, whilst, for others, it might be a situation that is fraught with tension, anxiety and frustration. The fieldwork was conducted in a preschool centre located in an area of Manchester, England, which has relatively high levels of poverty and where the majority of the children attending the preschool are entitled to a free midday meal. Lunch, which is served every day at 12 p.m., is offered to the children, who are aged between three and four.

The data collection methods included written field notes, videoing and photographs. Intensive time was spent observing during a six-month period, where lunchtime conversations and bodily interactions between the children and/or between the practitioners and the children were documented. Body-language movements were also carefully documented, where filmed footage and photographs served to compliment and generally thicken the ethnographic field notes (Gertz, 1973; Pink, 2001).

Becoming

The photograph in Figure 1 may well be used to ‘evidence’ quality UK early years provision – sensitive and localized adult support at lunchtimes, encouraging all young children to sit at the table and try new or eat familiar foods, whilst enjoying this sociable time together. To ‘read’ and savour the photograph as representative evidence in this way necessitates that we ‘di/still’ the movement long enough to assess and evaluate the bodies, gestures and facial expressions, as well as claim those practices and associated inferences as quality indicators of adult ‘scaffolding’. However, returning to Massumi’s (2002a) concern that we miss both the matter of bodies and the unceasing movement that constitutes the process of becoming, we need to refuse returning to the comfort of the arborescent model of the photograph as representation – the stable map where we identify and discuss what is already known. If we are to work with nomadic processes and to practise activism, what different kinds of work might be undertaken with the photograph? In what way can this data help us to envision new possibilities for a ‘weasel’ concept such as ‘quality’?

Rather than thinking about quality as a series of detectable, visible and measurable interactions and practices that lead to a child making linear, developmental progress through a trajectory of norms and age/stage-related expectations, we might reconceptualize quality as always already in movement – a process of becoming. Quality/qualities could be about experimenting with how ‘things’, including figures and more-than-human entities, are co-constituted, inhabiting a chaotic and relational assemblage of forces, bodies, smells, chairs and discourses taking on new significations. What is framed within the photograph in Figure 1 is ‘a commotion of relational activity’ (Manning and Massumi, 2014: 12) – that is, the adult and children together with the food, plates, cutlery, water, and so on will be in dynamic relation with one another. The photograph is a document that becomes part of the lived qualities as they were occurring. And, of course, whilst we cannot actually perceive these qualities, they will nevertheless be happening. Food, lips, hands, eyes and nose will be in molecular relation to one another. Taste, smells and colour will be in turmoil, generating sensation. Non-human matter as well as human – indeed, everything that smells – will be giving off light, volatile chemicals that float into air, then into the nose. The vegetables, meat and gravy, as well as the odours emanating from the rubber wire lying across the floor, the bacteria, moulds and fungi colonies flourishing all over the wood, metal and glass surfaces, the stale smell of drying paint and old play dough, and the children and adults, will be generating affect, intensities and forces. Matter will be combining with other matter, including culture, history, politics, economics and ideology.

The school meal is, in Deleuze’s (1990) terms, an ‘event’. The meal as event is never constructed from several or multiple elements, but always from a multiplicity of matter that moves together in a continuous flow. As event, this meal involves the knife *and* the fork *and* the table *and* the adult *and* the children

and the temperature of the room *and* talking *and* fingers in mouths *and* frowns *and* cleanliness *and* policy *and* culture *and* ideology *and, and, and ...* 'It is impossible to determine where the event stops' (Dolphijn, 2004: 24).

And yet, despite and because of the complexities, movements, forces and instabilities that circulate within the milieu of eating, there is, we think, a persistence in perceiving and understanding the school lunch as a space of containment where categories of perception and assessment will be evoked. These categorizations help practitioners to decide, for example, how the child in the foreground of the photograph in Figure 1 could be understood as a 'good eater', whilst the child looking intensely at the food, frowning, using her cupped hands to stop the plate of food coming any closer to her body, might be described as 'fussy'. It is where the child who finds some sort of relational comfort in holding her fork in one way might be encouraged to hold it 'correctly'. It is where children will learn to keep in check their immediate bodily aversion to certain tastes or sensations. It is where they will say 'thank you' for food that they have no appetite for. It is where they have to tolerate the close physical proximity of the adult, her body, her warm breath, her odour and her touch – to learn that such close bodily encounters, whilst evoking bodily (dis)comfort, (un)ease, tension or anxiety, are nevertheless orthodox manifestations of 'care' and 'kindness'.

We want to suggest that children, when eating their school meal, have to learn to map themselves onto 'a stable map of the always already known' (Massumi, 2002a: 12). It is a map that gains its stability through concepts such as quality, because it always and already legitimates what qualifies as 'quality' before the event. It has already been assumed, for example, that objects such as a tablecloth or a plate filled with vegetables are markers of quality.

'Quality', both within the context of the school meal and in other areas of early childhood education, works at maintaining the status quo. Quality 'as a mechanism of control cannot tolerate difference or the threat of difference of that which resists or exceeds meaning' (MacLure, 2011: 998). Nor can it pay attention to the affects of the event to which bodies respond and in which they participate, and thus it cannot appreciate that these affective flows are a form of thinking – thinking in action (Thrift, 2008) or thinking-feeling (Massumi, 2008). Nor can quality recognize that affect is beyond representation. Paraphrasing Katz (2000), speech cannot congeal affect. Talk cannot grasp affect. Affect is a form of expression that is often invisible, but on occasions erupts:

Blushes, laughs, crying, and anger emerge on faces and through coverings that usually hide visceral substrata. The doing of emotions is a process of breaking bodily boundaries, of tears spilling out, rage burning up, and as laughter bursts out, the emphatic involvement of guts as a designated source of the involvement. (Katz, 2000:

322)

However, could quality be reconfigured, where it could be concerned about and sensitive to the composition of an affective encounter? Where we can understand it as a network of intensities? Where it is produced in and amongst coalescing forces? In other words, can we conceptualize 'quality' as 'becoming', as open? Where body, movement and sensation produce something that warrants both attention and might potentiate different ways of 'becoming' quality? As Massumi highlights:

When I think of my body and ask what it does to earn that name, two things stand out. It *moves*. It *feels*, and it feels itself moving. Can we think body without this: an intrinsic connection between movement and sensation whereby each immediately summons the other? (Massumi, 2002a: 1)

Is there potential for making a difference to quality within this summoning?

Detouring to Norway

In order to pursue these thoughts further, we want to turn to Nina Rossholt's study, which she undertook in her home city of Oslo, Norway. Nina conducted an ethnographic study in two 'pre- schools' (*barnehagenes*) for children aged between two and five. She spent 12 months undertaking fieldwork, where her principle aim was to appreciate how discourses of gender, age and the material produce subjects (Rossholt, 2009, 2012a, 2012b). In this article, we focus on an example of her data where the children are eating their midday meal, which has been prepared in the *barnehagene*:

Sohaila, a girl aged two, touches the soup with her spoon. Green spinach soup is lifted up in the direction of the mouth. The hand lifting the spoon with the green soup changes direction, and the green spinach soup drips onto the red sweater and her white bib; one spoonful in the mouth and one down the sweater. Sohaila looks at me while trying to get the spoon in the 'right' position. Green, red and white begin to merge. Soup touches Sohaila's skin as well as touching her stomach. Sohaila takes a piece of the bread and butter and she licks the butter off with her tongue. A boy, Einar, also aged two, sits next to Sohaila. He too has a bowl of green spinach soup. He has eaten a piece of bread but the soup remains untouched. After a while, he pushes the soup away from him. He looks at the others eating and his gaze settles on the plate of bread and butter which is on the table. He looks down. He says, 'Einar bread'. The practitioner asks, 'Have you tasted the soup yet?' Einar looks down, his mouth closed. The bread is only twenty centimetres away but he does not touch it. Sohaila continues to practise eating soup. She tries out different positions with her right hand but most of the soup goes in the wrong direction. Einar, it seems, is waiting for permission to eat a second piece of bread and butter. The practitioner tells me that she really wants to give Einar a second piece, but that she doesn't dare. 'I will get a scolding from the other practitioner', she says. The staff have talked about Einar's eating habits, and they have

drawn up strict rules about how to react to him during mealtimes.

Einar has to taste all the various foods that are on the table, and not just the bread and butter. Einar's best friends have eaten two bowls of spinach soup. They eat fast. The spoons enter the bowl again and again: smiling faces, drinking glasses lifted, a composition of different sounds mingling with the sound of: 'No, you have to wait. You haven't tasted the soup yet'. After a while, Kari, the practitioner, gives Einar a piece of bread. (Field Notes, 24 November 2010)

If we stay with quality/qualities as always already in movement – a process of becoming – we are struck by how this observation oozes affect as a generative force. As O'Sullivan (2001: 126) points out: 'There is no denying, or deferring, affects. They are what make up life ... Affects are ... the stuff that goes on beneath, beyond, even parallel to signification'. O'Sullivan then asks: 'But what can one say about affects? Indeed, what needs to be said about them? ... You cannot read affects, you can only experience them'. Can we say anything about affect? Can we talk about affect or theorize it in ways that will assist us in our endeavour to rethink quality? If, as we shall go on to suggest, affect flows through Nina's observation, does this matter? And in what way does it matter? If, as O'Sullivan points out, affect cannot be read, what purpose will be served by paying attention to it?

We would argue that what Rossholt's observation manages to capture are pre-linguistic and/or extra-linguistic forces that emerge through continual configurations between the human and the non-human, where spinach soup – its colour, texture, smell and taste – triggers pleasure, desire and abhorrence, and where the non-human (e.g. spoons, soup, colour, smell, texture, spinach, bowls and noise, as well as culture, ethnicity, ideology, etc.), together with Einar, Kari and the other children, is caught within alliances, relationships, intensities and forces.

However, as the observation indicates, this relational encounter has already been mapped with pre-given rules. For example, it would seem that the staff have adopted the common-sense practice of encouraging children to try other foodstuffs so as to extend their range of food preferences. Discursive practices are also at work at the micro and meta levels: Kari will get a scolding and Einar will not be able to eat bread and butter – practices that are directed at rendering both of them 'docile' (Foucault, 1977). Additionally, the practitioners in Einar's setting (as well as practitioners in the UK) will be working within policy guidelines that are targeted at developing healthy eating habits so as to ward off the perils of obesity and chronic diseases. The limiting of the bread and butter stems from a healthy eating discourse that restricts the consumption of 'bad' foods whilst encouraging the consumption of 'good' foods (Buchanan and Ritchie, 2004; Hooper et al., 2012; Public Health, England, 2014). Thus, the practitioners' 'strict

rules' are bound up in structures that are aimed at enhancing the quality of Einar's life.

Similarly, the processual relationship between hand, arm, soup and spoon that is being played out in the observation, although messy, is countenanced because of an expected outcome. A conceptual overlay pre-exists this moment because there is a 'right' way of holding the spoon. There is a common logical outcome, and, as Massumi notes, when a common logical outcome is followed, 'product and process appear as versions of each other: copies. Production coincides with reproduction'. He goes on to note that 'any potential the process may have had of leading to a significantly different product is lost in the overlay of what already is' (Massumi, 2002b: xviii). In policing her own body, Sohaila 'does not express the system', but 'is an expression of the system', where 'the system expresses itself in its subjects' every "chosen" deed and mystified word – in its very form of life (its habitus, as Pierre Bourdieu would say)' (Massumi, 2002b: xviii). Massumi then goes on to ask a significant question: 'Where, in the conformity and correspondence between the life form of the subject and the system of power that is produced, has the potential for change gone?' (Massumi, 2002b: xvii).

The potential for change

Deleuze and Guattari (1988: 118) suggest that words such as 'quality' constitute what they describe as 'order words', which, in turn, are a 'death sentence'. They assert that, even when 'softened', order words bring death: 'Order words bring immediate death to those who receive the order or potential death if they do not obey, or a death they must themselves inflict, take elsewhere' (Deleuze and Guattari, 1988: 118). If we turn back to the observation, it becomes possible to see Kari struggling with the 'strict rules' that are caught up with issues relating to eating/quality, but also being affected by Einar. It is possible to understand Kari reaching what Braidotti describes as a 'threshold of sustainability'. She elaborates further: 'Your body will tell you if and when you have reached a threshold or limit. The warning can take the form of opposing resistance, falling ill, feeling nauseous or it can take other somatic manifestations' (Braidotti, 2011: 308). A threshold, in Braidotti's (2011: 309) terms, is a 'corporeal warning' or a 'boundary marker' that expresses a clear message: 'too much!'

Caught within the swirling relations that are manifested in this particular encounter, Kari suspends what she 'should do' and allows Einar another slice of bread. The pre-imposed judgment of 'eat this first, then that' serves to create a dichotomy. Either Kari obeys the 'death sentence' or she acts clandestinely. What she is currently unable to do is take cognizance of the bodily affects that swirl in and around her, and use this bodily knowledge for rethinking thinking, where quality is a way of living; where, as a concept, it can change within the

encounter of bodies being touched, bodies feeling; and where, in the space between the child and the material, the new can be created.

The problem is, as Rossholt (2009) has pointed out, we often define the new with old definitions and thus lose the potency of the new. Currently, this whole encounter is overshadowed by rationalist linear logic. However, following both Braidotti and Massumi, we would like to suggest that a concept like 'quality' could be made useful when it is not tied to an expected success or outcome. This effectively places 'quality' in the present. Situating quality in the present means that, in every situation, including mealtimes, the way in which all the different elements interrelate will be so complex that we will not be able to immediately comprehend the situation or the event. As Massumi notes in an interview with Mary Zournazi: 'There's always a sort of vagueness surrounding the situation, an uncertainty about where you might be able to go and what you might be able to do once you exit that particular context' (Massumi with Zournazi, 2002). Like Massumi, we perceive this uncertainty as providing a measure or margin of manoeuvrability, and it is here that it becomes possible to (re)think 'quality'. It is in the space of uncertainty that the concept of quality can become 'an opening to experiment' (Massumi with Zournazi, 2002: 214). By thinking of the concept of quality as an experiment, it becomes possible to ask: What could be the next experimental step? As Massumi with Zournazi (2002: 215) notes: 'focusing on the next experimental step rather than the big utopian picture isn't really settling for less. It's not exactly going for more, either. It's more like being right where you are – more *intensely*' (original emphasis).

Yet there is cause to pause for thought. We are haunted by the following observation and remark, where Kari tells Nina that 'she really wants to give Einar a second piece, but that she doesn't dare. "I will get a scolding from the other practitioner"'. Such an observation and statement is a timely reminder of how individuals invest in and are motivated by forms of desire and power, which help to maintain and reproduce forms of thinking, including common sense. We are therefore left hoping, in the first instance, that the intensity that Massumi references could characterize new modes of ethical behaviour, which will take us beyond frameworks of established protocols and sets of rules and guidelines in relation to quality. Secondly, we hope that it will be amongst the movements of intense experimentation where the contingent, the overlapping and the contradictory can be synthesized, 'but without effacing their heterogeneity or hindering their potential for future rearranging' (Massumi, 1988, cited in Deleuze and Guattari, 1988: xiii). Following Deleuze and Guattari (1988: xiii), we ask: Does the concept of 'quality' have to be used or implicated in building the courthouse of reason or can it be thrown through the window and, in so doing, call forth a future form?

Concluding remarks

This article has used two examples of ethnographic data concerning mealtimes as a conduit for rethinking so as to (re)consider the concept of 'quality'. In foregrounding the work of Braidotti, Massumi, Deleuze and Guattari, we have attempted to situate the event of eating within a logic of thought that resists anthropocentric tendencies, and, in so doing, we have become more raw to the effects and potential of affect. Being mindful of affect raises two possibilities in relation to the concept of 'quality'. First, we might begin to consider (re)modifying 'quality', where it is understood as an experiment that unfolds and responds to the events of schooling. Corrupting Patton (2005: 404), but with good intentions, we want to consider whether the concept of quality could give expression to events of schooling whilst simultaneously being 'betrayed' by historical and contemporary forms of the concept. Might this process open up what Connolly (2002: 172) describes as 'productive tensions', where issues relating to quality can countenance 'practical affective politics' (Thrift, 2008: 214)? But if we are to countenance a 'practical affective politics', schools and schooling have to become places where human and non-human relations are embedded in ethical, haptic cartographies of affect. Within such networks, Kari would not have to resort to smuggling bread and butter to Einar. Rather, her affected body could, in turn, affect 'others', including the human and the non-human, and in this way a transition, however slight, could happen. She would step across the threshold. The question is: Are we brave enough to take affective steps so that the concept of quality can be breached?

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Liz Jones is Chair Professor at the Hong Kong Institute of Education. Her research interests include post-structuralist theory; feminist theory; social constructions and deconstructions of 'the child' and 'childhood'. More recently, she has become interested in posthumanism, especially in relation to the work and workings of affect.

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Rachel Holmes is Professor of Cultural Studies of Childhood in the Education and Social Research Institute at Manchester Metropolitan University. Her research activities work across the interstices of applied educational research, social science research and arts-informed research. She is immersed in a range of theoretical positions that include, for example, postmodernism, feminist post-structuralism, and more recently, posthumanism and new materialism(s).

Appendix II: 'Becoming monster' Photographs used in this research project







Appendix III: 'Becoming Monster' More Photographs from that story







Appendix IV: 'Kiss' Photographs used in this research project







Appendix V: 'Kiss' More Photographs from that story





Appendix VI: Information Letters and Consent forms for the Head-teacher and the parents



December 2014
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INFORMATION SHEET FOR PARTICIPANTS

Examining young children's relations with food

Dear head-teacher,

I am a Phd student at Manchester Metropolitan University, studying young children's relationship with food.

I would like to invite your nursery to take part in my research study by enabling a number of interviews with nursery staff and parents/carers and a series of observations of young children eating to take place. Before you decide I would like to explain a little more about why the research is being done and what it would involve for you. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more clarification. Take time to decide whether or not you would like your nursery to take part.

What is the purpose of the study?

This study will focus on young children's relationships with food (from 2 to 4 years old) beyond notions of 'healthy eating' or a 'balanced diet'. This will contribute to the overall aim to understand more about children's bodily, sensory and affective experiences with food and explore how eating behaviour is produced in different contexts, including at home and in nursery, in order to reconfigure notions of nourishment. Additionally, by completing this study I would like to examine how young children, practitioners and parents negotiate mealtime and snacks and by doing so, contribute to understandings of, and practices in relation to, children's experiences with food.

Why have I been invited?

You have been invited to participate in my research because you have responded to my request for volunteers.

It is up to you to decide if you would like your nursery to take part in this research or not. To help you decide I will describe the study and go through the information sheet, which I will give you. I will then ask you to sign a consent form that documents your agreement to take part. You are free to withdraw at any time, without giving a reason.

What will it mean for your nursery if you decide to accept the invitation?

If you decide to take part in this research there is nothing particular that you will need to do before the research takes place. Interviews with both nursery staff and parents/carers will take 40 minutes whilst walking around the children's eating area. Observations will be carried out during children's snack and mealtime. The observations will be a combination of written notes, taking photographs and videoing.

There will be no risk of discomfort caused to you, the children, parents/carers or nursery staff during the research process. Any inconveniences to participants will be minimized.

Who should I contact if I have any questions or concerns?

If you have any questions about the study before or after the research, please contact:

Thekla Anastasiou

ESRI (Education & Social Research Institute), Manchester Metropolitan University, Birley Building, 53 Bonsall Street, Manchester, M15 6GX.

Tel: 07518435684

Email: THEKLA.ANASTASIOU @stu. mmu.ac.uk

Will your participation in the study be kept confidential?

All information collected from your nursery during the research will be kept strictly confidential; any information about the nursery, the staff, children, parents or carers that leaves the university will have your name and address removed so that you and all other participants cannot be recognised. The data will be kept no longer than three years after I have finished my research, until the end of August 2020 and during this time they will be stored in a locked drawer in my house that only I will have access to. The electronic data will be protected with a password and the computer will be in a secure location. My supervisors, Professors Liz Jones and Rachel Holmes, may also see the data in order to guide me.

All the procedures for handling, processing, storage and destruction of their data match the Cadicott principles and/or Data Protection Act 1998.

Can you choose to withdraw your nursery from the study?

It is up to you to decide whether or not you would like your nursery to take part. If you do decide to take part you are still free to withdraw at any time without giving a reason. If you withdraw from the study all the information collected from you, tape-recorded interviews, observation notes, photographs and video footage will be destroyed and your name removed from all the study files.

What will happen to the results of the research study?

The results of this research study will be part of my doctoral thesis, which will be completed by the end of September 2017. Part of the data might be published in educational journals. However, you or your nursery will not be identified in any report/publication. In cases where you ask for a transcript after the interview or wish to read my observation notes / see visual observation footage these can be made available to you.

Hopefully the interview will be an enjoyable experience, but if you wish to make a complaint or express concerns about the study or your experience, please contact Prof Harry Torrance, ESRI (Education & Social Research Institute), Manchester Metropolitan University, Birley Building, 53 Bonsall Street, Manchester, M15 6GX (h.torrance@mmu.ac.uk).



**Manchester
Metropolitan
University**

December 2014
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Consent Form-Head Teacher

Title of Project: Examining young children’s relations with food

Name of Researcher: Thekla Anastasiou

Participant Identification Code for this project:

Please initial box

- | | |
|--|--------------------------|
| 1. I confirm that I have read and understood the information sheet for the above project and have had the opportunity to ask questions about the interview and observation procedures. | <input type="checkbox"/> |
| 2. I understand that my nursery’s participation is voluntary and that I am free to withdraw at any time without giving any reason to the named researcher. | <input type="checkbox"/> |
| 3. I understand that my nursery’s name will remain anonymous. | <input type="checkbox"/> |
| 4. I agree my nursery to be involved in the above research project. | <input type="checkbox"/> |

Name of Participant

Date

Signature

Researcher

Date

Signature

To be signed and dated in presence of the participant

Once this has been signed, you will receive a copy of your signed and dated consent form and information sheet by post.



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INFORMATION SHEET FOR PARTICIPANTS

Examining young children's relations with food

Dear parent,

I am a Phd student at Manchester Metropolitan University, studying young children's relationship with food.

I would like to invite your child to take part in my research study, by allowing me to undertake a series of observations of your child eating at nursery and if possible, at home. Before you decide I would like to explain a little more about why the research is being done and what it would involve for your child. Please take time to read the following information carefully. Ask questions if anything you read is not clear or if you would like more clarification. Take time to decide whether or not you would like your child to take part.

What is the purpose of the study?

This study will focus on young children's relationships with food (from 2 to 5 years old) beyond notions of 'healthy eating' or a 'balanced diet'. This will contribute to the overall aim to understand more about children's bodily, sensory and affective experiences with food and explore how eating behaviour is produced in different contexts, including at home and in nursery, in order to reconfigure notions of nourishment. Additionally, by completing this study I would like to examine how young children, practitioners and parents negotiate mealtime and snacks and by doing so, contribute to understandings of, and practices in relation to, children's experiences with food.

Why your child has been invited?

Your child has been invited to participate in my research because s/he is between 2-5 years old and s/he attends the nursery participating in the study.

It is up to you to decide if you would like your child to take part in this research or not. To help you decide I will describe the study and go through the information sheet, which I will give you. I will then ask you to sign a consent form that documents your agreement for your child to take part. You are free to withdraw your child at any time, without giving a reason.

What will it mean for you and your child if s/he takes part?

If you give your consent for your child to take part in this research there is nothing particular that you or your child will need to do before the observations take place. The observations will take place during snack and mealtime in the nursery. The observations will be a combination of me writing notes, taking photographs and videoing.

There will be no risk of discomfort caused to you or your child during the observation process and I will be very happy to talk to your child if s/he asks me about what I am doing during the observations.

Who should you contact if you have any questions or concerns?

If you have any questions about the study before or after the research, please contact:

Thekla Anastasiou

ESRI (Education & Social Research Institute), Manchester Metropolitan University, Birley Building, 53 Bonsall Street, Manchester, M15 6GX.

Tel: 07518435684

Email: THEKLA.ANASTASIOU @stu. mmu.ac.uk

Will your child's participation in the study be kept confidential?

All information collected during the observations will be kept strictly confidential; any information about you or your child that leaves the university will have her/his name and address removed so that s/he cannot be recognised. The data will be kept no longer than three years after I have finished my research, until the end of August 2020 and during this time they will be stored in a locked drawer in my house that only I will have access to. The electronic data will be protected with a password and the computer will be in a secure location. My supervisors, Professors Liz Jones and Rachel Holmes, may also see the data in order to guide me.

All the procedures for handling, processing, storage and destruction of their data match the Cadicott principles and/or Data Protection Act 1998.

Can you and your child withdraw from the study?

It is up to you to decide whether or not you would like your child to take part. If you do decide you would like her/him to take part, s/he is still free to withdraw at any time without giving a reason. If you would like to withdraw your child from the study, all the information collected and video records will be destroyed and the name will be removed from all the study files.

What will happen to the results of the research study?

The results of this research study will be part of my doctoral thesis, which will be completed by the end of September 2017. Part of the data might be published in educational journals. However, your child will not be identified in any report/publication. In cases where you ask for a transcript after the observation this can be made available to you.

If you wish to make a complaint or express concerns about the study or your experience, please contact Prof Harry Torrance, ESRI (Education & Social Research Institute), Manchester Metropolitan University, Birley Building, 53 Bonsall Street, Manchester, M15 6GX (h.torrance@mmu.ac.uk).



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Consent Form-Observation

Title of Project: Examining young children's relations with food

Name of Researcher: Thekla Anastasiou

Participant Identification Code for this project:

Please initial box

- | | |
|---|--------------------------|
| 5. I confirm that I have read and understood the information sheet for the above project and have had the opportunity to ask questions about the observation procedure. | <input type="checkbox"/> |
| 6. I understand that my child's participation is voluntary and that is free to withdraw at any time without giving any reason to the named researcher. | <input type="checkbox"/> |
| 7. I understand that the observations will be video recorded and used for analysis for this research project. | <input type="checkbox"/> |
| 8. I give permission for written notes, video recording and photographs to be taken as part of the observation process. | <input type="checkbox"/> |
| 9. I give permission for the written notes, video recording and photographs to be archived for up to three years beyond the study period. | <input type="checkbox"/> |
| 10. I understand that my child's name will remain anonymous. | <input type="checkbox"/> |
| 11. I agree for my child to take part in the above research project. | <input type="checkbox"/> |
| 12. I understand that at my request the video, photographs and written notes from the observation can be made available to me. | <input type="checkbox"/> |

 Name of Parent's Participant

 Date

 Signature

 Researcher

 Date

 Signature

To be signed and dated in presence of the participant

Once this has been signed, you will receive a copy of your signed and dated consent form and information sheet by post.

Appendix VII: Implication for the Early Years Practitioners

Research Aim

This research focuses on the 'disadvantaged two-year-old offer' introduced in September 2014 by the Coalition Government which targets what are described in policy terms as 'economically vulnerable families'. Within this policy backdrop, early years practitioners, whose role is to work closely with young children and their families, are implicated in a programme where the aim is to mollify/rectify being 'disadvantaged'. With early years practitioners having a responsibility to consider eating habits and behaviours, an added layer of complexity emerges around meal and snack times where adult discourses of care and education, as well as children's own embodied relations with food, will have to be negotiated.

In the research conducted, the aim was to understand children's embodied relationships with food and to extent knowledge around food and eating that goes beyond notions of healthy eating and a balanced diet. Through this work, I tried to uncover those powerful stories in early years which are silenced. More specifically, an attempt was made to develop an understanding of the affective engagement children have with food in order to understand why some children may enjoy the eating experience in nurseries, whilst, for others, it might be a situation that is fraught with tension, anxiety and frustration.

Data collection

Throughout my time in your nursery a big number of photographs were collected, as well as some videos and few field notes. These notes included exchange of few words or conversations between the children, between the children and the practitioners, between the children or practitioners and myself. Photographs are all stored safely and securely onto a hard drive. After collecting the photographs, I uploaded them as soon as possible onto a hard drive and kept them protected at home with the use of a password.

Implications for Early Childhood Education: Contributions to current knowledge

Mealtime need to be treated as an important part of children's development. As practitioners we need to focus not only on the food and its quality, but also on all those elements that come with it such as smells, senses, experiences, places etc. Though, it is very important to realise that nurseries are material and sensorial. As a consequence, we need to acknowledge the role of the non-humans in the room, such as the smells, the food, the colours, the plates, the furniture, as the relationships between those and the human entities appear doing pedagogy (Kontopodis, 2013; 2015;2016). At the same time, we need to start challenging the idea of childhood as only related to innocence, purity, need for protection, and guidance and the idea of adulthood as related to independence and responsibility (Brophy, 2016). Following Sherbine (2016), childhood is defined by what is coming after, by the other, and if children experience only the present, they anticipate what is next for them.

In the two events produced in this thesis I have noticed that eating happens at the same room as playing and a number of other activities, where the non-living entities' role is crucial in influencing the way living entities think, feel and perform (Lenz Taguchi, 2010). For instance, chairs, tables, food, sounds, smells ... and ... and ... are able to transform children's thinking and acting while being in the particular space they are located in. Thus, sitting in a specific small wooden chair or on a multicolour mat, in a specific place, with specific human and non-humans beings around them, produces a specific series of behaviours and actions as all those which were discussed earlier.

As Taylor and Giugni (2012) suggest, children need to be given the space to experiment and explore the worlds where they live in, as this will enable them to generate knowledge about the place, the events, the people, the objects which are associated with. By doing that, we acknowledge children's agency and their abilities to what they can do, that usually goes beyond school policies about readiness and curriculum (Osgood, 2014). Thus, as practitioners we need to slow down the urge to intervene every time they seem to struggle or they do not obey to what they have been asked, giving them the time to experiment with the environment around them. As Rossholt (2012) argues, eating,

crying, shouting, dancing, spinning, kissing, are some examples of the way body produces hunger, playfulness, tears etc. Therefore, we need to see material as having more central role in our everyday life. We need to be open to the body's transformations in different contexts as the association with the material produces new ways of becoming a subject (Rossholt, 2012).

Therefore, I would suggest as you make obvious the connections when eating happens and to do that you can use different occasions from our lives. For instance, a very good example is the fact that you involve children in the baking of a cake every time a child celebrates his/her birthday. During this process try to make the connections between the people in the setting, between each individual child and the group, with places and things, between thinking, feeling, playing and learning. You can succeed that by asking children to bring pictures from previous birthday parties that they had and then ask them to share those within their group and describe those moments. Give them the time to ask and answer any questions as well as to describe this day to their group. In occasions where in the group you have children from a different cultural background, then ask children to talk about something that they do in their house differently (such as a cake, a song, a party). Another idea is again with the use of pictures to ask children to talk about their breakfast at home or their mealtime with their families. In those two occasions, you can invite parents from different cultural backgrounds and ask them to prepare a traditional breakfast/dish at the nursery (you can combine that with traditional dishes during Christmas, Easter, a special celebration). This more relational approach will benefit children (body, mind, feelings, spirit and creativity) as well as their well-being. Food needs to be used as a platform to think, teach, talk and learn.