The practice of recycling
– Understanding people's motivations and barriers

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Abstract

The problem of waste has grown into one of today's biggest environmental problems affecting both humans and the environment. Because of a growing world population, continued economic growth and more unsustainable consumption patterns, more waste is being generated, and more resources are being used. Today, Sweden has a large and well-developed waste management system and a high recycling rate. However, problem still exists. In Sweden there is still a lot of material that is not recycled but rather thrown in the trash and a lot of material that are sorted wrong at the recycling stations. According to studies in Sweden, there exist lack of knowledge about how to recycle correctly and a great deal of uncertainty about recycling and the process. This study investigates people's recycling behaviour by investigating how and why people are recycling or why they do not, and what barriers and motivations people have for recycling. The data was collected by conducting 17 interviews in 17 different households in a medium-sized municipality in southwestern Sweden. The analysis builds on a practice-based approach which helped study recycling not only through interviews but also through observing recycling as a social practice. The result showed that factors like access, availability, and knowledge are both barriers and motivations for people. There is a need for more closeness and availability to recycling facilities and more knowledge is needed about recycling, specifically on how to recycle in the right way and why. The study also indicates that knowledge and awareness about the environment influences peoples recycling behaviour and is also a common motivation for people. Feeling good and doing something that other people do was also a motivation and for why people recycle. This study contributes to a deeper understanding and broader insight into the behaviour of recycling. It can help to organize, describe, and explain environmental behaviours like recycling and as well improve future work with waste management and recycling.

Keywords: Recycling, behaviour, practice theory, barriers, motivations,

Sammanfattning

Sverige har idag en stor och välutvecklad avfallshantering och en hög återvinningsgrad jämfört med många andra länder, men det finns fortfarande problem. Problemet med avfall har vuxit till ett av dagens största miljöproblem och påverkar både människan och miljön. På grund av en växande världsbefolkning, fortsatt ekonomisk tillväxt och mer ohållbara konsumtionsmönster genereras mer avfall och fler resurser används. I Sverige finns det fortfarande mycket material som inte återvinns och som istället kastas i soporna och mycket material som sorteras fel vid återvinningsstationerna. Enligt studier i Sverige saknar många människor kunskap om återvinning och det finns även en stor osäkerhet om återvinning och processen. Denna studie undersöker människors återvinningsbeteende, genom att studera hur människor återvinner, samt varför och varför de inte gör det, samt vilka hinder och motivationer människor har för återvinning. Studien bygger på 17 intervjuer i 17 olika hushåll i en medelstor kommun i sydvästra Sverige. Analysen bygger på teorier om sociala praktiker som bidrog till att studera återvinning genom intervjuer men också genom att observera återvinning som en social praktik. Resultatet visade att faktorer som tillgänglighet och kunskap både är hinder och motiv för människor. Det behövs mer närhet och tillgänglighet till återvinningsanläggningar och mer kunskap om återvinning, specifikt om hur man återvinner rätt och varför. Studien indikerar också att kunskap och medvetenhet om miljön påverkar och är en motivation för att människor ska återvinna. Att känna sig bra och duktig och göra något som andra gör var också ett motiv och en anledning att återvinna. Denna studie bidrar till en djupare förståelse och bredare inblick i återvinnings beteendet. Det kan i framtiden hjälpa till med att organisera, beskriva och förklara miljöbeteenden som återvinning och även förbättra det framtida arbetet med avfallshantering och återvinning.

Nyckelord: återvinning, beteende, practice theory, barriärer, motivationer

Acknowledgment

I would like to express my sincere thanks to my supervisor Stina Powell for all the good guidance, help and support throughout my thesis. I will also thank my opponent Sergei Timofeev and examiner Sara Holmgren for all the good feedback and comments.

I also express my gratitude to all my interviewees and the housing company who helped me to send out information about my study and helped me with the contacting. Then I will like to thank my parents Bo Nilsson and Elisabeth Nilsson for all the support under these months and to my lovely friends Maria Stikå, Linnea Lundström with reading and editing.

Last but not least, I would like to express my special thanks to my two favourites Emmy Hadd Danielsson and Emelie Oldensjö, who have been a great support and help these two years, you rock!

Table of Contents

1 Introduction

The amount of waste increases worldwide from west to east and on land and in the oceans. The problem of waste has grown into one of today's biggest environmental problems affecting both humans and the environment (Song, Li & Zeng, 2015). Because of population growth and continued economic growth leading to increased and more unsustainable consumption patterns, more resources are being used and more waste is being generated (Guerrero et al., 2013). The increase in waste has become an emergent issue for national and local authorities, something which they try to solve through developing efficient and sustainable waste management systems (World centric, 2017). Sweden is one of the countries that recycles most waste in the world (EEA, 2014), and according to new statistic from the Packaging and Newspaper Collection (FTI AB, 2017), recycling rates increases for each year in Sweden. Recycling is a common method for many countries for waste management systems (World centric, 2017). The advantages of recycling are that it reduces the need for virgin raw materials in production, which limits the environmental impact that occurs in the extraction of new materials (Abbotta, Nandeibam and O'Shea, 2011). In addition, recycling contributes to reductions in energy consumption, waste minimization as well as conserving natural resources (Kollmuss and Agyeman, 2002). Even if Sweden has a well-functioning system and high recycling rate, problems still exist. Today there is for example a lot of material that is not recycled and instead thrown in the trash and also a lot of material that are sorted the wrong way (Sweden television news, 2017). Several municipalities in Sweden have conducted analyses of their household waste and according to the analyses there is between 20% and 50% of household waste that is sorted wrong. The household waste contained a lot of packaging that could have been recycled, mainly newspapers and plastic and paper packaging (Borås Tidning, 2017: Uppsala Vatten, 2010: Sörmland Vatten, 2016: Region Västerbotten, 2013: Hässleholm Miljö AB, 2012: Västernorrland, 2014). However, according to a recent survey, 95% of the Swedish population claim that they recycle their household waste (My Newdesk, 2017).

According to studies in Sweden, there is a lack of knowledge about the practice of recycling and a great deal of uncertainty (Sweden waste portal, 2017). People do for example not know that it is illegal to not recycle. There is also a lack of knowledge regarding the benefits of recycling and on how to properly sort the waste (Sweden waste portal, 2017). In a study from the Stockholm Consumers Association, it was found that there are many misunderstandings and lacking knowledge about waste, litter, and recycling in Sweden (Consumer Association Stockholm, 2017). However, according to McKenzie-Mohr (2002), more knowledge and information does not necessarily lead to a changed behavior (McKenzie-Mohr, 2002). Environmental behavior, such as recycling has been found to be a complex matter because of the large number of factors that influence the behavior (Botetzagias, Dima and Malesios, 2015: Barr, 2007: Kollmuss and Agyeman, 2002: Abbott, Nandeibam and O'Shea, 2013). Both external factors such as accessibility to recycling stations and transportation, laws and regulations, service and information from the municipality and social and cultural norms in society affect whether people recycle or not. There are also internal factors such as people's own interests, values, attitudes, knowledge, and awareness about the environment that play a major role (Kollmuss and Agyeman, 2002).

In my research, I investigated people's recycling behavior by investigating how people recycle and what their barriers and motivations are for recycling. I am interested in how recycling is perceived and performed and why and why not people recycle.
My study draws from 17 interviews in a medium-sized municipality in southwestern Sweden. The aim was to get a deeper understanding of recycling and to investigate the external and internal factors that affect recycling as a behavior. My analysis builds on a practice-based approach which helps me to study recycling both through interviews but also by observing recycling as a social practice.

1.1 Research Question

The research questions I ask in this thesis are:
- How do people perform and perceive recycling?
- Why do people recycle and what are their motivations for it?
- Why are people not recycle and what are their barriers for it?

1.2 Contribution

This study gives a broader insight into the behaviour of recycling as an environmental behaviour. By conducting the study from a practiced based-approach, this study provides a deeper insight into recycling as a social practice, which no studies have done before. Instead of studying individual behaviour, this study focuses on social structures in society through applying social practice theory. Shove, Pantzar and Watson (2012) argues that a social practice is made up of and maintained by three elements *materials*, *meanings*, and *competences*. Understanding the deeper reasoning behind the meanings people attach to the recycling practice, will provide new possibilities to change and improve the practice towards increased recycling rate. Reveling and understanding the barriers and motivation for recycling and which materials and competence that is needed to perform recycling will also improve the work on recycling by understanding the factors that influences the practice.

2 Background

2.1 The waste problem

The problem of waste relates to all three dimensions of sustainable development: the social, the economical, and the environmental. The social dimension relates to that waste and trash is a health problem in many areas, and that litter and waste leads to a negative spiral where litter produces litter, leading to damage and vandalism, something which in turn might lead to insecure social areas (Wilson and Kelling, 1982). The economic dimension is connected to our lifestyle, for example the wear and tear society in which we use a product once or for a short period only, and then throw it away rather than reusing it, a practice which cost our world a lot of money and resources. Also waste and littering is costly for society as it is cleaned up and taken care of. The environmental dimension is broad as, waste effects both the air, ground, water, and all living things (EEA, 2014) Today there is also an ongoing discussion about marine littering, where waste that goes to landfill or get thrown in the nature ends up in the oceans (EEA, 2014). The marine litter is a problem that directly affect the marine life and its mammals. It also indirectly affect us humans as plastic break downs to microplastic[1] which can harm both seabirds and marine animals, and then ends up on our plate and in the fish, that we eat (National Ocean Service, 2017). In order to deal with the increasing problem of waste, there is a need to take care of the waste in a more sustainable way. For example, the EU have developed an order on how to treat waste in the most environmental way, which is the waste ladder or "waste hierarchy" (European Commission, 2017).

2.2 The waste hierarchy

The waste hierarchy specifies a hierarchy for the order in which different methods of treating waste should be used. It is based on EU waste directive and is a direction of achieving the EU's environmental objectives (European Commission, 2017), it is also incorporated into Swedish legislation (SFS 1998:808) The waste ladder begins with reducing waste or preventing waste, this follows by reusing waste, where you use a material again and give it new life. The third step is recycling where you sort packaging and other material, composting and recycle cans. If the waste cannot be recycled, the energy in the waste should be recovered by combustion, which is the fourth step, energy recovery. Waste that cannot be handled in these four steps goes to landfill which is the fifth step. The waste hierarchy aims to prevent waste as much as possible, to use waste as a resource and to minimize the amount of waste sent to landfill (EEA, 2014). According to the EU directive, the waste hierarchy should be used in policies and legislation to create instruments and rules which will improve and help the waste management go up in the waste hierarchy (Naturvårdsverket, 2017a).
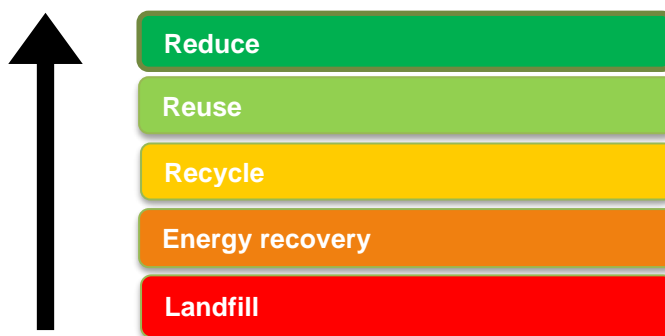

Figure 1 The hierarchy of waste management.

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[1] Microplastics are small plastic pieces less than five millimetres, coming from two different sources, from manufactures or microbeds from health and beauty products, or from larger plastic which has been broken down into smaller pieces of. (National Ocean Service, 2017)

2.3 Recycling

Recycling is the third step in the ladder presented above in figure 1 and a method that many countries all around the world are implementing today (EEA, 2014). Recycling is a process where you convert waste materials into new materials and items. Increased recycling reduces landfill waste, something which is both dangerous for our health and the environment because it increases methane emissions, generates odour and noise pollution, and can result in groundwater contamination (Abbotta, Nandeibam and O´Shea, 2011). Other advantages for recycling is that it also reduces the need to use virgin raw materials in production, which limits the environmental impact arising from the extraction of new materials (Abbotta, Nandeibam and O´Shea, 2011). It also reduces energy consumption, minimizes waste, and conserves natural resources (Kollmuss and Agyeman, 2002,). There are two different ways to increase the recycling rate, one is technology where there is focus on the materials, manufactures and the process of recycling and the other part is the human behaviour (Botetzagias, Dima and Malesios, 2015).

2.4 The Swedish waste management

Sweden have a large and well-developed waste industry and is one of the countries that recycle most waste in the world (EEA, 2014). Material recycling and energy-recovery is the two treatments of waste that is mostly used in Sweden. In 2015 did 35 % of the household's waste went to recycling and almost 50 % went to energy recovery (Avfall Sverige, 2017). In Sweden there is only 1 % of the household waste that goes to landfill (Miliute-Plepienea et. al., 2016). Sweden's waste management is based on the EU Waste Directive and the waste hierarchy, where the purpose is to reduce the environmental impact (EEA, 2014). The waste management system that we today have in Sweden was legislated in 1994, were the extended producer responsibility was introduced. Producer responsibility means that the companies that manufacture packaging, newspaper, waste paper, tires, cars, medicines, batteries, and electrical and electronic waste are responsible for collecting and ensuring that it is recycled. The producers have the responsibility to set up collection infrastructure for packaging materials and newspapers in every municipality. The purpose of the producer responsibility is to motivate producers to produce products that are more resource efficient, easier to recycle and do not contain environmentally hazardous substances (Naturvårdsverket, 2017b). The municipalities are then responsible for the collecting system and the transporting of household waste that is not covered by the producer responsibility, to a treatment facility which mostly goes to energy recovery (SFS 2014: 1073).

As mentioned in the introduction you are in Sweden required by law to sort and leave your household waste to the recycling collection system (SFS 1998:808). The collection system is divided by six different fractions: newspaper and metal, paper, plastic, and glass (uncoloured and coloured), and includes only packaging that are covered by the producer responsibility. The collection systems consist of different recycling facilities, where the most commonly is the recycling stations that are unmanaged and located around the country where households can leave their used packaging and newspapers. Then there are also curb side recycling which many housing companies have as a service for their tenants. There are also larger recycling centrals where you can leave bigger materials and items and items that are not packaging or newspapers (FTI AB, 2017b). According to a study made by (FTI AB, The Swedish packaging and paper collection agency) recycling waste is the most common environmental activity that Swedish people do for the environment. From a survey made in 2017, 95 % of the Swedish population claimed that they were recycling their household waste (My new desk, 2017). The kind of packing material that is recycled most in Sweden is newspaper and glass, around 90 %, paper and metal is almost 80 % respective 70 % and plastic 47 % compared to plastic bottles that is recycled to 82 %. (SCB, 2017)

3 Literature review

3.1 Recycling and behaviour

Peoples recycling behaviour has been frequently studied, mostly using quantitative measures. Most of the studies have a statistical approach with a focus on demographical and socio-economic factors (Botetzagias, Dima and Malesios, 2015: Miliute-Plepienea et. al., 2016: Miafodzyeva, Brandt and Andersson, 2013). There are also studies that have looked at the relationship between recycling different waste types and analysing the correlation between them (Abbotta, Nandeibam and O´Shea, 2011). According to studies like these, there is no correlation between recycling and demographic or socio-economic factors, and there is no obvious barrier or motivation that is the most common one.

   Studies on household recycling behaviour has been done in many countries in Europe for example, Norway (Bruvoll et al., 2002), Portugal (Oom do Valle et al., 2005; Vicente and Reis, 2008), Spain (Meneses and Palacio, 2005), and the United Kingdom (Barr, 2007; Davies et al., 2002; Evison and Read, 2001) and Sweden (Miafodzyeva, Brandt and Andersson, 2013; Hage and Söderholm, 2008; Hage et al., 2009; Miliute-Plepiene and Plepys, 2015). These studies have all a focus on what influences and motivates the recycling behaviour, something which was analysed with different behavioural and social- and psychological frameworks and models.

Different approaches have been used to study recycling behaviour. As mentioned above they are mostly quantitative studies and often focusing on socio-economic factors (Botetzagias, Dima and Malesios, 2015: Miliute-Plepienea et. al., 2016: Miafodzyeva, Brandt and Andersson, 2013; Berger, 1997; Tucker et al., 1997), but there are also studies that have been focusing on access to facilities and service (Martin et al., 2006), and peoples knowledge and experience of recycling (Gamba and Oskamp, 1994; Thomas, 2001). Many studies have shown that pro-environmental behaviour such as recycling is complex because there are many factors affecting the behaviour and that needs to be considered and, that there are both external and internal factors (for example access to recycling station, space in the home, norms, environmental awareness, and information) making it even more complex (Botetzagias, Dima and Malesios, 2015: Barr, 2007: Abbott, Nandeibam and O'Shea, 2013). Botetzagias, Dima and Malesios (2015), have identified factors that affect human recycling behaviour by compiling and analysing several different recycling studies. The factors they found were the convenience of recycling, access to recycling, awareness of the consequences of recycling, environmental knowledge, type of waste, the area of residence, perceived social pressure, legislation, attitudes towards recycling and campaigns and information (Botetzagias, Dima and Malesios, 2015). This shows that there are both external and internal factors that affect people's recycling behaviour which makes it a complex behaviour to change.

3.2 Barriers and motivations for recycling

One external factor that many studies show as important motivations to recycling, is access and availability to recycling facilities (McKenzie-Mohr et al., 1995: Hage, Söderholm and Berglung, 2009: Abbott, Nandeibam and O'Shea, 2013: Barr, 2007). These studies show that closeness to recycling and access affect their level of recycling. Other studies show that by making recycling containers and facilities visible amongst neighbour promotes and sustains the social norm to recycle (McKenzie-Mohr et al., 1995: Abbott, Nandeibam and O'Shea, 2013) and has a positive effect in encouraging people to recycle (Barr, 2007). Another factor and motivator for recycling is the importance to have space in the home, something which seems to support recycling as a normalised behaviour and increased the recycling rates (Thomas and Sharp, 2013).

Several studies have analysed how social and moral norms influences recycling behaviour (Botetzagias, Dima and Malesios, 2015: Miafodzyeva, Brandt and Andersson, 2013).

People's behaviour is often grounded in values, sense of identity, norms, and culture (Botetzagias, Dima and Malesios, 2015). Thomas and Sharp (2013) have in their study explored what influences recycling as a norm and what impact norms have on those who do not recycle and do not recycle as much. The study shows that services and knowledge about how to recycle play a central role in whether people recycle or not, also high self-organisation (having a system in the home for recycling) have been shown to support recycling as a normalised behaviour (Thomas and Sharp, 2013).

In a recent study from Sweden and Lithuania (Miliute-Plepienea et. al., 2016) the aim was to understand the main motivational factors behind recycling. This study showed that households that had access to a curb side collection system near their house tended to recycle more than those without such a system. It also showed that better and more communication and information about how to recycle and more awareness about the consequences on the environment contributed to higher recycling rate. Information and communication seemed to be an important factor, the study also showed that clear labelling of containers, increased moral obligations and information and more knowledge about how the system and process work to increase the trust for the waste system, improved the recycling rate (Miliute-Plepienea et. al., 2016). However, there is also studies that say that information and knowledge does not necessarily lead to a changed behaviour, that there are much more factors that matters (McKenzie-Mohr, 2002).

Kollmuss and Agyeman (2002) have studied why people act environmental friendly and what the barriers are to pro-environmental behaviours. They have found that many different factors affect people's behaviour both internally and externally. According to them, people need to have knowledge about the problem and to know what they can do to lower their impact on it. A strong pro-environmental attitude was also important in their study, as well as an individual sense of responsibility for the problem. They have also found external factors that affect the behaviour, such as infrastructure and access to act (for example containers to recycling), economic factors have a strong influence on people's decisions and behaviour (for example waste taxes), social and cultural factors shape people's behaviour (for example social pressures and norms from family and neighbours and society) (Kollmuss and Agyeman, 2002).

One study done in an urban area in Sweden with multicultural households showed that the biggest reason for why people recycled was the acceptance of the 'legal' norms of Swedish authority (Miafodzyeva, Brandt and Andersson, 2013). Most of the people explained that they recycle because it is a law in Sweden and that they respect it. They interviewees also pointed out the importance of providing information about recycling in other languages than in Swedish. The result also showed a strong positive correlation between the attitude towards the recycling behaviour, which also two other studies show (Barr, 2007: Abbott, Nandeibam, O'Shea, 2013). The study in Sweden also looked at barriers and motivations for recycling which is common to do when analysing behaviours. (Kollmuss and Agyeman, 2002) The biggest barriers too recycling was lack of 'space' (for recycling in the home) and the biggest motivation for recycling was acceptance of legal norms (Miafodzyeva, Brandt and Andersson, 2013). A study that has studied barriers and motivation but for minimising food waste (Graham-Rowe, Jessop, Sparks, 2014) suggest that by understanding people's barriers and motivations can we get a deeper understanding of the behaviour and understand why people do as they do. When you know what the barriers and motivations are you can easier decrease the barriers and increase the motivations. In the study about food waste (Graham-Rowe, Jessop, Sparks, 2014) the researchers found that the barriers and motivations were connected to negative emotions and strong values and moral norms, like the wish to avoid experiencing negative emotions (such as guilt, embarrassment, or regret) supported both the motivations and the barriers to minimising food waste (Graham-Rowe, Jessop, Sparks, 2014).

McKenzie-Mohr (2000) means that by uncovering barriers and benefits for a behaviour or an activity can you easily change and influence it. By discovering the barriers that inhibit people from engaging in a behaviour, and the benefits that motivate them to act, it is possible to understand the behaviour and have the chance to influence it. McKenzie-Mohr (2000) argues that recycling is a popular behaviour because it serves to lighten our guilt for not doing the more difficult and inconvenient aspects of sustainable living. He also writes that other studies suggest that people recycle because it makes them feel good about themselves and because others do it (McKenzie-Mohr, 2000), something which also other studies show (Barr, 2007: Botetzagias, Dima and Malesios, 2015).

Most of the studies above have an individual approach where they look at the individual's own behaviour. Elizabeth Shove (2010) argues that a change is needed, away from the current focus on the individual choice and influence on individual behaviours to a greater understanding of socially and culturally specific methods and sociotechnical systems. To address changing practice, Shove says that we need to 'shift the focus away from individual choice and to be explicit about the extent to which state and other actors configure the fabric and the texture of daily life' (Shove, 2010, p. 1281). By understanding practices, and how people perform these practices and make assumptions from them of what it is normal to do, and what the deeper meaning of it is, we can require an understanding of all the elements that support a social practice. Even if recycling may be a daily chore and easy thing to do, it requires strong internal motivation and importance of understanding all factors that influence the behaviour.

Therefore, my study with a qualitative focus and a theoretical approach on social practice and the social and cultural structures rather than on the individuals own behaviour can provide a deeper understanding of the recycling behaviour as a social practice. It also provides a deeper understanding of all the factors around that influences it, which can benefit further research and work around the recycling behaviour and waste management.

4 Theoretical framework - a practice-based approach

In order to understand peoples recycling behaviour and to find out how, why, and why not people recycle, and to understand their barriers and motivations for it: this study applies a practice-based approach. Practice theory is the methodological and theoretical framework for analysing and presenting my study. I will here describe practice theory and the conceptual framework for this study.

4.1 Practice theory

Practice theory is not one single theory but rather an umbrella approach for studying practices (Hargreaves, 2011). In practice theory, there are many different theorists who differ somehow in their thoughts and ideas of what constitute a practice, as well as in the why they define it. According to Hargreaves (2011: p. 83): "some theorists focus on the various components or elements that make up a practice (e.g. Reckwitz, 2002; Shove & Pantzar, 2005), others on the connections between these elements (e.g. Schatzki, 2002; Warde, 2005), and others on the position of practices as a bridge between individuals 'lifestyles and broader socio-technical systems of provision (e.g. Spaargaren and Van Vliet, 2000). The theory of social practice can be traced back to Giddens (1984) theory of structuration, where he argues that "individual actions are shaped by a framework of social structures, but this framework is itself created and modified by those actions. This process is mediated through meso-level structures called practices" (In Hards, 2011: p. 24) Schatzki's (1996) more philosophical approach, suggest that a social practice is built up by doings and sayings. He takes the example of cooking as a social practice. "Different actions and expressions (cleaning vegetables, discussing recipes, cooking rice, etc.) performed by different actors that produces the social practice of cooking." (Schatzki's, 1996 p. 89). For my study recycling would be the practice and the different action and expression should be the doings like using and emptying food packaging's, cleaning them, collecting them, sorting them, and go out and recycle them in the recycling containers, and the sayings, what people in the practice say, think, and perceive recycling.

Another explanation of practice is provided by Reckwitz (2002). According to him "A practice is a routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, things and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge." (Reckwitz, 2002:49-50). Reckwitz (2002) say that a practice consists of several elements and that they are connected to each other in a way which is similar to Shove, Pantzar and Watsons (2012) view on practice, which will be my main theoretical approach in this study. According to Shove, Pantzar and Watson (2012), "practices are provisionally stabilized when constitutive elements are consistently and persistently integrated through repeatedly similar performances" (p. 24). This means that the practice which in this study is recycling is created and stabilized by elements or components that are consistent and persistent and integrated through repeated and routinized actions by the people that recycle.

Practice theory has been applied to understand and analyse human behaviour for many years, researchers have used it to increase and improve understandings of why people do what they do and to offer an alternative explanation of human action other than understandings of individual behaviour. Practice theory has been used in many studies connected to environmental behaviours and issues, such as sustainable consumption (see Halkier & Jensen, 2011; Hargreaves, 2011; Røpke, 2009), and climate change (see Shove, 2010; Shove, Pantzar & Watson, 2012). There have also been studies that have studied other behaviours as cycling (Spotswood et al., 2015), Nordic walking (Shove and Pantzar,

2005), residential heat (Gram- Hanssen, 2010) and food consumption (Halkier, 2009; Brons and Oostervar, 2017) connected to practice theory. One study that used practice theory was Spotswood et al. (2015) which analysed cycling as a practice. They argued that social practice theory allows an alternative way to understand the complex structures of a behaviour, and to understand the complexity between the elements that creates the practice of cycling. Practice theory also provides a behaviour to be analysed as a social issue and not just an individual behaviour (Spotswood et al., 2015). As described, I have not found any studies focusing on recycling and using a practice-based approach. Therefore, this study applying practice theory to the behaviour of recycling, can contribute to new insights and understandings. It can give a new perspective where recycling is something more than just a daily routine in a household and reveal the underlining factors that influences the behaviour and make people recycle or not.

4.2 A conceptual framework

Practice theory suggests many new ways to understand and explain human behaviour. By communicating and observing the individuals recycling behaviour and link their reactions to a broader and deeper perspective with a social focus, a practice-based approach was preferred. This because it provides a new way of looking at recycling and gives a broader understanding how people perform the practice in a larger context. As a researcher, I can then understand the practice as a social phenomenon and with the social structures that exist around it. As Hargreaves (2011) argues that social practice theory compared to conventional, and individualistic approaches to behavioural change, rather, separates individuals from analysis and instead addresses the social part that shapes the perceptions, interpretations, and actions of individuals (Hargreaves, 2011) which I will do in my study by investigating in the recycling behaviour and try to understand what social structures that exist around it and what factors influences the behaviour.

Practice theory also focuses on how practices are formed, reproduced, maintained, challenged, and eventually broken in society and how practices recruit practitioners to maintain and strengthen the practice (Shove and Pantzar, 2005). Shove, Pantzar and Watson, (2012) explain that a practice is shaped by shared understandings, purposes, and norms, that norms and rules for the practice is what defines and holds the practice together. As explained before practices are also shaped by elements that are constantly integrated through repeatedly similar performance. Shove, Pantzar and Watson (2012) explain that a practice is created and maintained by three elements and the links between them - *meanings*, *materials,* and *competences* – they are all interdependent and at the same time mutually shaping each other. According to Shove, Pantzar and Watson (2012) are *meanings* the mental and deeper thought and feelings that surround the practice, it is social and symbolic meanings and ideas like images, emotions, beliefs and interpretations or concepts associated with the activities. The *materials* are the things necessary to perform a practice, such as "objects, infrastructure, tools, hardware, and the body itself" (Shove, Pantzar and Watson, 2012, p. 23). Materials can refer to different material or objects that are used in the practice and "that permit or facilitate certain activities to be performed in specific ways." (Shove and Pantzar, 2005). *Competences* are forms of understanding, knowledge, skills, or know-how of the practice and how to perform the practice. "competencies that permit or lead to activities being undertaken in certain ways." (Shove and Pantzar, 2005). Competences is the competence or knowledge that is needed to perform and be a part of the practice.

Another important aspect of practice that Shove, Pantzar and Watson (2012) explain is the individuals that are participating in the practice, they are called practitioners or agents. The practices can evolve through small changes from the practitioners, but these changes are *"made possible by the circulation of new and different, meanings, materials and*

competences" (Shove, Pantzar and Watson, 2012 p. 73). In my study, the interviewees are the practitioners of the recycling practice that I studied. By studying their recycling behaviour and their thoughts and attitudes on recycling I can get a deeper understanding of the practice that exists. I also looked at the people's barriers and motivation for recycling, what is it that motivates them to recycle and what is it that hinders them to recycle. According to Shove, Pantzar and Watson (2012) a focus on barriers and motivators has been extended in research and in policy's (Shove, Pantzar and Watson, 2012). By removing barriers and finding out the motivation for a behaviour can you easier make people act and change their behaviour. This because by revelling and removing barriers or the obstacles that seem to prevent people from acting or being a part of a practice, it becomes easier to make people act (Shove, Pantzar and Watson, 2012). McKenzie-Mohr (2000) also argues the importance to identify barriers and benefits for a behaviour to making it possible to change a behaviour and to create a successfully strategies for it (McKenzie-Mohr, 2000).
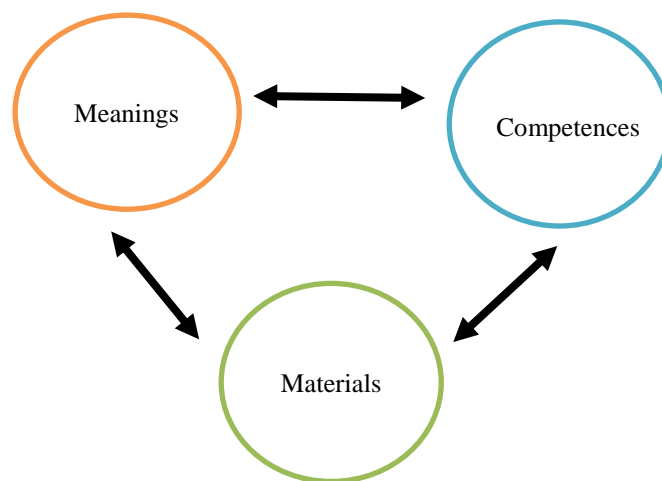

Figure 2 The three elements of a social practice (Adapted from Shove, Pantzar and Watson, 2012, p. 36).

The concepts *meanings, materials,* and *competences* are the three elements for analysing practices, which I will use in my analysis and presentation of my findings (Shove, Pantzar and Watson, 2012). Below is an explanation of how I used these three elements when analysing peoples recycling behaviour and the practice.

Meanings: "*Images, interpretations or concepts associated with activities that determine how and when they might be performed" (*Shove, Pantzar and Watson, 2012).

Here I investigated how the respondents perceived recycling, what the respondents thought of recycling, what is their thoughts and feelings for recycling. Why do the respondents recycle, or why not? What are their motivations and barriers? Are there any deeper meanings with recycling or is it just a norm? Looking at both what the respondents actually said about recycling but also what their deeper meanings seem to be, can help to understand recycling deeper meanings, values and norm that exist in the practice.

Materials: "*The physical objects that permit or facilitate certain activities to be performed in specific ways" (*Shove, Pantzar and Watson, 2012).

Here I investigated how the respondents recycled, what objects do they use when they recycled. What materials or objects do they need to recycle? Is there something that hinders them to recycle or is there something that helps them recycle? Understanding how the respondents recycled and what they used and needed creates a broad picture of the behaviour and the practice of recycling. It can also help understanding the behaviour and which material factors that influence recycling and then have the chance to change and improve the recycling by understanding the materials for the recycling practice.

Competence: *"Skills, know-how or competencies that permit, or lead to activities being undertaken in certain ways" (*Shove, Pantzar and Watson, 2012).

Here I investigated what the respondents needed for competence, knowledge, or skills to perform recycling, what do the respondents know about recycling, what knowledge do they need to perform recycle? What seemed to be important to know for the respondents to perform recycling. How have they learned to recycle? What is their understanding of recycling and the behaviour? This can show what important knowledge and skills that are needed to perform recycling and what competences people need to have.

5 Methodology

This chapter describes the design of my research, the methods I used for data collection, how the data collection took place and the analytical methods I used, and a discussion about my methodological choices and why I have chosen to do this study this way.

5.1 Research design

The aim of this thesis is to study peoples recycling behaviour. To study how, why, and why not people recycle, and what barriers and motivations they have for recycling. This I will do by doing in-depth interviews and observing how people recycle. Creswell (2014) writes about the importance to know and make explicit your philosophical entry point or a worldview as a research. He defines a worldview as "a basic set of beliefs that guide action" (Creswell, 2014 p. 5). The worldviews often influence the approach you choose in your research and influences whether you used a qualitative, quantitative, or mixed method. The worldview also depends on the discipline you are in; the view of your supervisor and mentors as well as past research experience (Creswell, 2014 p. 5-6). In my study, I both have a transformative and a constructivist philosophical entry point. The transformative worldview is driven by social change, which can be connected to recycling as a pro-environmental behaviour which people are taking on. It is also related to wanting to make a change, which has been important to me when conducted this study. I wanted to learn more and understand peoples recycling behaviour and, in the future use my findings creating change and improve the recycling rate. The constructive worldview is related to a focus on how people understand and perceive the world by interaction with others, which in my case is to understand how people perceive, understand, and perform the practice of recycling. By using a constructivist view on research, you also see and understand the interview as a process in which reality is constructed by the interviewee and the interviewer (Silverman,2015). Both worldviews show that qualitative research is the approach for my research according to Creswell (2014).

To achieve my aim and answer my research question have I chosen to make a qualitative study, this by investigate people's recycling behaviour, how they perform and perceive recycling and to understand why and why not people recycle with a practice-based approach. Qualitative research is a way of "exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (Creswell, 2014, p. 32) which differ to quantitative research, where the focus is on testing and evaluating the data (Silverman, 2015). A qualitative approach is also suitable for gaining in-depth understandings of how people define and experience complex social phenomenon (Ritchie, et al., 2003). Qualitative research is flexible, both during the data collection and during the analysis. This opens the possibility of identifying and creating emerging categories and theories from data rather than imposing categories and ideas in advance (Ritchie, et al., 2003). My research approach aims to explore and be open to the respondent's own thoughts and ideas and thereby develop new insights in relation to my topic. This is why the flexibility and inductive potential of qualitative methods are important.

5.2 Data Collection

5.2.1 Interviews
In my study I did 17 semi-structured interviews with open-ended questions, the data was collected in February 2018. The semi-structured interview made it possible for the respondents to speak freely about their view on recycling and with the aim of creating

opportunities for other issues and problems that I as a researcher had not previously thought of (Silverman, 2015). Semi-structured interviews also have the advantages of having a more fluent conversation between the interviewer and the interviewee, where answers and follow-up questions are more flexible and new subjects can easy emerge (Bryman, 2012). All interviews were held in Swedish because the majority of the interviewees had Swedish as the first language. Three respondents had another language as their first language but could speak Swedish fluently and agreed to conduct the interview in Swedish. I used an interview guide with themes and questions, to get a structure in the interview, in order to make sure that I asked and discussed the same things with all respondents in all the interviews. The interview guide was still open for new subjects and issues that the respondents wanted to talk about and under the interviews new questions and discussions emerged, which gave room for new aspects and subject to talk about.

   All the interviews were conducted face to face. They were conducted in the respondent's own home, in their working place or at the municipality housing company facilities. When the interview was in the respondents own home they showed how and where they recycled, which gave me a deeper understanding of their behaviour. The respondents were assured that they were anonymous in the study and all accepted sound recordings of the interviews. The location of the interview can have impacted the respondents, as when booking the interview, I always asked if they wanted to come to the housing company's facilities or if they wanted to have the interview at home. Therefore, the interviewee decided where she or he wanted to have the interview and where they felt most comfortable.

5.2.2 The respondents and the area

I did my 17 interviews in a medium-sized municipality in south-western Sweden. My plan was to get a broad group as possible, with both women and men, young and old and single households, couples, and families. I got a broad range of both gender, age, and housing type in my interviews, the youngest was 21 and the oldest 86 and the gender was almost 50/50 (Creswell, 2012). I did interviews in five different areas in the municipalities biggest town to get a broad data as possible, there was one area that was a more multicultural area and one with a lot of older people. The other three areas were more of a mix in age both young and old, these three areas had also newer houses and had a higher standard than the other two. The interviewees were all Swedish origin, except one couple from Poland and one male from Germany. My aim and goal were to include both Swedish and new Swedish citizens to get a good representation of the areas, but it turned out to be difficult to achieve. I had two interviews booked with one man and one woman who were new Swedish citizens, but they cancelled at the last minute. I tried to book further but no one was interested. The result might have been different if I got those interviews and a clearer representation of the area.

The respondents in this study were selected with help from the municipality's housing company which also helped me with sending out information. Because of the cooperation with them I decided to limit myself and my study to only rental apartments. The company had access to the tenants' contact information and shared it with me, I also used a search webpage for companies, people, and places to find the person´s contact information. I then choose a few rental houses in the municipalities biggest city with help from the municipality's housing company which had the knowledge about the different areas, I choose some that had a full working waste system and some that had problems with it according to the housing company. I started to send out information about the study and my cooperation with the housing company before I started to contact the people by phone. Here the housing company helped me to send out the information in both theirs and my name. I think this helped me a lot to get people to participate in the interview study, because of the trust the people had for the housing company and that they wrote that they will use this result to improve their waste management in the future. In the information we send out we wrote that the tenants could sign up for the study by calling the housing company

themselves and then we could together book a time for the interview. I got two tenants that signed up for themselves, the rest I needed to call and ask for an interview. Of my 17 interviews, three interviews were both people in the household presented and in the remaining were only one who presented the whole household.

5.2.3 Interview Guide

The interview guide was built up by themes and questions, to get some structure in the interviews. The interviews themes and questions were created from my theoretical approach on practice theory and Shove, Pantzar and Watson (2012) three elements – *materials, meanings,* and *competence*. The first part was connected to the element materials. Here I focused on how the respondents recycle, how do they do it, what objects do they use when they recycle, where do they recycling, what materials or objects do they need to have to recycle? and what do they think of their recycling place today? The second part connected to the element meanings had a bigger focus on the respondent's thoughts and feelings against recycling and their behaviour. Here I wanted a deeper understanding what the respondents thought of recycling, why did they recycle, or why not, what were the reasons and what was the barriers? are there any deeper meanings with recycling or is it just something they do as a habit? The third part was connected to the element competence. Here was the focus on the knowledge about the practice of recycling, what do the respondents know about recycling? what knowledge or information do they need to recycle? where and how have they learned to recycle? and what is their understanding of recycling?

5.3 Analysing the data

All of my 17 interviews were conducted face-to-face and recorded, I started to transcribe the interviews immediately after the first interview and then continued during the interview period. All of the interviews were transcribed fully, and only irrelevant parts were left out. In a social constructionist perspective which I have in my study, the interview is understood as a process in which reality is constructed by the interviewee and the interviewer (Silverman, 2015). Therefore, I transcribed the whole interview including the questions asked and comments given by the interviewer and all the answers from the interviewee. The transcripts were then read two times to create a broad understanding of data before starting the analysis. Before the transcribing of every interview I listened to the interview as a first analyse to start to think of similarities and differences between the interviews and connection to what I have read in other studies. Checking and reading the transcripts several times and see that you have not missed anything shows a strong reliability in the data according to Creswell (2012). The procedure of the analysis was carried out by help from Creswell (2012) and Bryman's (2008) frameworks. They are grounded in finding themes that are repeated in the data and to see their relationship to each other. According to Bryman (2008), you need to start coding early in the process to increase the understanding of the data and contribute to the theoretical collection (Bryman 2008). This are the steps that I did in my analysis:

- **Step 1**: Listened to all the interview recordings
- **Step 2:** Transcribed all the interviews
- **Step 3**: Read all the transcribes two times
- **Step 4:** Coded all the transcribes by grounded coding
- **Step 5**: Coded all the transcribes again but know with practice theory and Shoves three elements, *materials, meanings,* and *competences.*

After all interviews were transcribed, I started the analysis of my result which I did by manually coding. The interviews were coded in two steps, first grounded coding (open coding) and then priori coding. The first step of coding was to code the interviews by the themes and questions I had in my interview guide, how do they recycle, what do they use, what do they need, why are they recycling and what are their motivations for it, and why do they not recycle and what are the barriers for it, and then their knowledge and thoughts about the information and communication around recycling. This was a more open coding where I had the opportunity to find themes and subject that may not be seen in the priori coding. The coding was done by colour coding, highlighting the parts that were connected to each theme in each interview and then did I summarize each colour and theme with all the quotes from all the interviews. I then read all the quotes for each theme to find keywords which were repeated and returned. After finding the keywords and themes I went back to Shoves three elements for practice theory *materials, meanings and competence* and did the second step of coding, the priori coding, where I did a new colour coding with the three elements as my themes. By doing two different codes with different themes it made it easier to go through all the data without missing any important parts and to get more trustworthiness and credibility in the result (Creswell, 2012). I also tried to come up with themes or headlines for the three elements by finding keywords that were repeated and returned. I find two to three themes for each element that summarized the main points the interviewees had talked about. The themes that I found was for meanings: *environmental effort, from a must to a habit* and *feelings connected to recycling*, materials: *accessibility* and *information*, competence: *knowledge about recycling* and *an everyday routine.*

5.4 Discussion of my methodology

In my method I limited myself to a specific area and I limited my study to only the rental houses in the area, these are two factors that form my study and that I need to consider when I analyse my result. In my study, I do not have a group that can represent the Swedish or the municipalities populations recycling behaviour. I have a group that has a mix in both age and gender and background which can contribute to some new insight for the field, but I almost only got Swedish people to interview, my goals were to get new Swedish citizens as well, which had made my group more representative of the area and Sweden.

The result can still and will also help the municipalities housing company with their waste management and hopefully get more people to recycle. The limitation to only rental houses takes away a large part of the society, both condominiums and houses, but in my interviews, several of the respondents had previously lived in houses and had both thoughts and knowledge about it, which gave me an insight of it. My choice of method and analysis are grounded by experience and by the previous research. The analysis was made in two parts because of the big amount of material I had and because I did not want to miss anything important that would have been of interest to my study.

   As a researcher you always have an impact on your result and specifically on the people you talk to and interview. Creswell (2012) describes the importance of being explicit of your own thought, feelings, and experience, that they should not affect your focus in the interview, your analysis, or the people you interview. Kvale (1997) explains that as a researcher you need to be aware that your background and research subject influences the interviewees and what answers you get. How you present yourself, how you talk and ask the questions all affect the result and what answers you will get (Kvale, 1997). For me, I think my background and studies in environmental science influenced because I was an environmentalist and not an economist or engineer, the focus was on being environmentally friendly. It felt in my interviews and from other experiences that when I present myself as an environmentalist, people usually try to be and look more environmentally friendly than they might actually be, and it sometimes felt that the respondents did not tell me the whole story, something which I needed to keep in mind as I did my analysis.

6 Result

In this part my findings and analysis will be presented, it will be presented with a practice-based approach based on Shove, Pantzar and Watson (2012) three elements *meanings, materials,* and *competence*. One thing to have in mind is that the three elements have a strong connection to each other and can affect each other by changing, emerging new components and elements and therefore the elements can overlap each other as they also do in this result. Here the practice of recycling will be presented or more specifically the practice of my 17 households that I have interviewed. The results are presented together with quotes from the interviews. All the quotes are also presented in Swedish which is their original language, in Appendix 1.

6.1 Meanings

For the element of meanings, I analysed the respondent's aspirations, thoughts, feelings, purposes, and deeper meanings of recycling. The element of meanings focuses on the symbolic meanings, aspiration, and ideas behind the practice, and the three themes which I found in my analysis I have labelled: *Environmental effort, From a must to a habit,* and *Feelings*.

6.1.1 Environmental effort

Many respondents are aware of the impact that recycling has on the environment and that is also the most common reason the respondents give to why they recycle. One respondent says the reason she recycles is: *"Good for the environment, we have to care for the environment, the sea and all this"* (Respondent 4). Another respondent says: *"I've done it since they started to recycle, but it is for environmental reasons I think"* (Respondent 17). When asking them about what they mean by the environment they have different thoughts and ideas, but, one clear pattern was the focus on the ocean, nature and natural resources like water, land, trees, and minerals as well as concern for climate change, as this quote shows: *"Then they may not need to take so many trees down, it is a lot of natural resources that is needed to make new things"* (Respondent 11). Several of the respondents said that they do it for the environment and explain that if they recycle their waste can turn into new things, meaning that there is no need to take more trees down or take more minerals and oil from the ground. A few of the respondents claimed it was for the animals and nature that they recycled. All those respondents had a pet like a cat or a dog, which they thought of when they talked about the animals and nature in the wild.

> *"Yes, you should recycle as much as possible, and it affects the environment very much. It should not end up an in nature and harm animals".* (Respondent 7)

Other respondents talked about the connection to reducing consumption and energy. One respondent argues that by recycling, less energy in the production is needed. *"It's for the cause of the environment and that it consumes less energy by recycling instead of doing new ones"* (Respondent 10). Even if most of the respondents said that they recycle out of concern for the environment there was those who did not have the environment as their reason for recycling. They argued that it was just a habit something that they have always done. Two respondents said that when they recycle it becomes less household waste, so they do not need to go out with the garbage that often. Respondent 8 said *"For me, it's more that it takes less space in the garbage if I had thrown everything in the garbage, I would have to get rid of the garbage quite often, it would have been even more running out then"* (Respondent 8). The greater focus on the environment in society in general as well as an increased focus on the environment in the news was also a factor the respondents brought up. This both seemed to have an impact on the respondents but also information and inspirations from family and friends, which also made them do more for the environment.

As one respondent said *"Because you do a community service and environmental work. I am used to recycling, and you get a lot of information from the news and that others do it"* (Respondent 10). Another said: *"We have begun to think more and more about the environment, I would like to say because I think that is the biggest reason we do it"* (Respondent 13)

There was also those who said that they have started to think more about their waste and consumption level when they started to recycle. When starting to talk about their waste and how they do it many respondents says that *"there is so much waste", "so much plastic and paper"* and *"I do not understand where everything comes from".* One respondent said that they did not think that much about their waste before when everything was thrown in the same garbage bag, they did not think or see how much it was, but now when they have one bag for each they explain that they can clearly see how much paper and plastic they use in just one day.

"But I have never thought that it was so much plastic, I realize that it has always been the same amount of plastic it is just now that I see it growing in this bag". (Respondent 13)

A common view by the respondents that had young children was that they brought up the connection to their child and future generations. They said that their children need to have a good future and then they need to think of the environment and live sustainable, so they can have a good future. It seemed that the respondents had different views on recycling and the environment depending on their place in life, but all the respondents mentioned the environment as something that is connected to recycling in a positive way.

6.1.2 From a must to a habit

One pattern that was clear in the interviews was that many of the older respondents began to recycle because they felt that they had to do it. There were two reasons for this which they brought up, economic reasons and that it became something they "should" or "must" that they picked up from society in general and from friends and neighbours. The economic reason was that the waste taxes increased if you did not recycle. If you recycled, you had less waste left and did not need to have it picked up that often and could save more money. There were also the respondents that even said that the society have forced them to do it, *"We were or what to say, we were forced to do it, before you put everything in the trash can...[...]...They said they would raise the waste tax if we did not recycle or sort our waste."* (Respondent 1). There was also a change in society that many respondents talked about, that the environment became something that was increasingly talked about on TV, radio and in the newspapers. Some respondents said that recycling and information about the environment were everywhere and that was something that influenced them. As one respondent expressed *"It has probably just come from the social debate, naturally, that everyone has talked about it, and now it's time to start recycling."* (Respondent 16). One respondent said that they followed society and the trends that came, where recycling was one. Another respondent explained that she started to recycle when the containers were put up by the food store she shopped at and since then have she followed the environmental focus and change in society and the development with recycling.

"It was when the containers came... then did we follow. We have followed, if we can call it a trend I do not know but we have tried to keep up with it." (Respondent 4)

This can also be connected to the element of materials where the recycling containers produced and changed the practice and made it easier to recycle. This shows that the elements have a strong connection to each other, change in meanings and materials influence each other, as in this situation new materials changed the meanings of a practice and made is more accessible to recycle. According to Shove, Pantzar and Watson (2012)

meanings can change when other elements of the practice change. As elements change or new elements emerge, the interdependency between the elements causes other elements to change as well.

According to most of the respondents, their recycling behaviour started as something they needed or should do because of money or for norms and structures from the society. Now, most of the respondents do it as a habit, it is something that they do as a daily routine that they do not think of that has grown into their everyday life. This was something that surprised me, I thought that they would have more thoughts behind their recycling behaviour, instead they say, *"I do it on automatically" and "it is just something I have always done", "it is natural"* and *"it is a habit, it has become a habit"*. As stated by Reckwitz (2002), people act autonomously and according to social norms, therefore, human social practices are "routine" and "recursive" as they can change over time because of a variety of elements and circumstances continually affect the human behavior including the actual development of the practice (Reckwitz, 2002). One respondent said that they needed to think of how to recycle the first weeks but now it goes on routine, and they do not think about it anymore.

6.1.3 Feelings
One pattern that was clear in the practice of recycling was that it gave the respondents both positive and negative feelings. The positive feelings they talk about came when they did go and recycle and was a part of the practice. The argued that they *"feel good"* and they *"feel good in their soul "*, when they did it, but in the same time when they did not recycle and was not part of practice they felt "*shamed", "bad"* and *"lazy"*.

In the analysis it showed that the feelings the respondents had was sometimes connected to their childhood and how they had grown up. For example, an older man talked about his childhood that it was never okay to throw food or waste anything. They were also strictly forbidden to throw garbage in nature, which he said was something he had brought with him over the years.

The positive feelings the respondents had was often connected to their environmental thinking. One respondent said *"I think it feels good to do, it feels good when I do it, and you still do a little service for the environment, so it is that it feels right to do it right"* (Respondent 9), while another said *"One has begun thinking more and more about the environment, I would say, as I think it's the biggest reason we do it, then I get a good feeling in my soul if I throw it where it should be"* (Respondent 13).
According to the respondents, recycling was something that everyone saw as something with positive consequences, which was also something that was of consensus in society. For example, as one respondent said, *"It's just a thing to do ... because it is a positive thing, it has always been a positive thing, it has not been a question why should I do that."* (Respondent 7)

The positive and negative feelings that the respondents talked about was frequently associated with their level of recycling. One respondent explained that she is recycling everything at home: plastic, glass, paper, metal, batteries and light bulbs and other bulky waste, and that she feels very bad when she throws a plastic or a paper packing in the trash. Another respondent who only recycled glass and paper did not feel so much when throwing a metal or plastic packing in the trash. One respondent that had just started to recycle a few years ago even said that she had lived in denial and had not thought so much about recycling before: *"I lived a bit in denial or what to call it, and then I thought that I have to do it now. then I started."* (Respondent 16)

Several respondents mention that recycling is an easy thing to do for the environment. One respondent said that recycling is something that everyone can do and help out with, even if you do not know anything about the environment or sustainability. Many explained that it is an easy way to contribute and a way to feel good, someone even said it feels like a clap on the shoulder when throwing things in the recycling bin. It seems that recycling is a common activity many do for the environment to feel good about themselves and to feel that they have done something good.

6.2 Materials

The element materials are connected to what objects and things the respondents need to perform the practice, what they need to be able to recycle (Shove, Pantzar and Watson, 2012). The material elements that had a clear pattern in all the interviews were *accessibility* and *information*.

6.2.1 Accessibility
To practice recycling, you need to have a recycling station, room, or a place available where you can recycle your waste. If you do not have a recycling station near you house, you also need a car or another transportation to go to the recycling station. In this study, all the respondents had access to a recycling room close by, where they had access to most of the different recycling containers that exist. Two areas did not have everything, they had household's garbage, glass, metal, and paper that were available for them. The other three areas had access to everything glass, metal, paper, plastic, food waste, bulbs, and batteries. All the respondents talked about the importance of having a recycling room and access to recycling close to their house. According to Shove, Pantzar and Watson (2012) is it important to pay attention to issues of access. Access to the materials or objects that are necessary for the practice can be a decisive factor if people can perform the practice (Shove, Pantzar and Watson, 2012). It seems like the recycling room is a motivation for the respondents to recycle, one respondent says that they do not have any reason to not recycling, they have the recycling room which has all the different containers just a few meters outside their house.

> *"We have no excuse to not recycle, because we have it so nice here and can recycle just outside." (*Respondent 9)

The respondents also wanted convenience in the recycling room, some of them said that it exists lack of containers, that the containers are full very often and that it is disgusting and filthy in the recycling room and that makes them not want to recycle. Many of the respondents also said that if there would not be a recycling room close to their house, would they recycle much less and not as carefully as they do today, some even said that they would stop recycling. As a quote shows here, *"If the recycling at the house had not existed, then I would have to go to the Recycling central and then it will immediately be one more step towards having to do something more than you have to go away and then it can easily go in the garbage"* (Respondent 11). Several respondents talked about this, that you need to do so much more if there would not be a recycling room near the house. When asking the respondents what they need to recycle almost everyone said accessibility to recycling.

> *"Yes, but it is probably the knowledge and the closeness to the recycling stations."* (Respondent 8)

> *"Just to have this, just this recycling room nearby and space and some sort of routine."* (Respondent 13)

They said that if they would not have a recycling room close to the house they need to take the car to the recycling station and then plan when they should go and pack up the car, it would be much more planning and take much more time. As the quotes here shows, *"it would be so many more steps"*, *"you need to plan so much more, today I can just go out when the container and bag is full."* One respondent even explained that she started to recycle when she moved to one of these houses, because there was both access and space in the kitchen and availability to a recycling room was just outside her door. Before she lived on the countryside and needed to take the car to the nearest recycling station which she did not do because of time and too much planning. Another respondent had lived in a smaller apartment before where there was no access to recycling only household waste and food waste. He said that the accessibility was one reason for him to not recycle. When he moved to a bigger apartment with access to recycling just outside their house it felt natural to start recycling. Even if every one of the respondents said that the recycling room is important for them to recycle there was still some that did not recycle everything even if they had access. One respondent said that it had become a habit to throw plastic and metal in the garbage, and that it is hard to change and break these habits. This shows the complexity behind recycling and that it is not only one factor that influences the behaviour, as many other studies also show (Botetzagias, Dima and Malesios, 2015: Barr, 2007: Abbott, Nandeibam and O'Shea, 2013).

The respondents also expressed a need for access to space in the kitchen and in the apartment in order to be able to recycle. One respondent came with the suggestion that all the kitchens should have a standard for recycling, where there is one container for household garbage and one for food waste and then one for glass, one for metal, one for paper and one for plastic. *"I think a lot more people had recycled if there was a standard in all kitchens, because that is where most of the household waste comes from. That there was a nicer or hidden solution to it"* (Respondent 13). He also thought that it would make it more practical, accessible, and easier to recycle. It would also be nicer and cleaner, today this respondent has four bags on the kitchen floor because everything does not fit under the sink, only household waste and food waste. This was something that almost all respondents agreed on, that recycling takes too much space in the kitchen and in the apartment.

   "It is tight! It takes a lot of space; the recycling has really expanded in the apartment and I have previously lived in a villa and moved to an apartment four years ago and then you clearly notice the difference in place." (Respondent 16)

"It is not a place reason, because it takes a lot of space, it takes a lot of space in the apartment." (Respondent 17)

All the respondents have their waste in more than one place in their apartment because of lack of space. The first place they all use is the cabinet under the sink, where most have the household waste and food waste if they have that. Then they also use one or two cabinets in the kitchen, a closet or other storage space in the apartment. A few respondents have solved the problem with space so that they mix everything (paper, plastic, paper, and metal packings) in one bag or container and then separates it outside in the recycling room, but when asking them if that works well they all said that if they would have more space they would have sorted the waste directly in the apartment in different containers or bag, this was just an easy solution to lack of space.

   The respondents that lived in houses before they moved to the apartment talked about the big change in space. That there was a big difference and when living in a house they did not need to make space for the recycling which they need to do now. Some of the respondents saw it in another way, they mean that it is about prioritising and that there is always space if you just priorities. When asking the respondents if they would want all the waste to fit

under the sink, many of them said that if they would clean it out and take out, for example, plastic bags and cleaning stuff there would be more space, so maybe there is space, but it is about prioritising.

6.2.2 Information

Another material the respondents needed to perform recycling was information about recycling, information materials like brochures, flyers, sign, and symbols in the recycling room and at the recycling station. The information they needed was about how to recycle and where, and where to put what. This information was necessary for the respondents to perform the practice of recycling, and according to Shove, Pantzar and Watson (2012) can materials be things such as "objects, infrastructure, tools, hardware, and the body itself" (Shove, Pantzar and Watson, 2012, p. 23).

Most of the respondents say that they need more and clearer information material about recycling from the municipality and the housing company. However, they have different ideas on what kind of information that is needed. One respondent says: "*Yes, there is a need for more and clearer information. Yes, more clarity about why, so everyone can easily understand it, so they understand why*" (Respondent 2), while another says*: "Yes, but information what happens after I do not know, or where do it go*" (Respondent 15). There were some of the respondents that thought that there is enough information, that they know how and where they should recycle. They said that it is up to those who take care of the waste to take care of the rest. There was also those that said they wanted to know what happens if they do not recycle or recycle wrong and what the consequences of that might be. That was something they missed, the respondents also believed that it could be an important information for people who do not yet recycle, they might start to recycle when they know the consequences off their actions if they do not. One respondent said: "*It needs more information both what happens when you recycle och when you do not recycle, or when you recycle wrong, then you inform about both, that is good.*" (Respondent 10)

All of the respondents agreed that information is important for them to recycle, and several also think that information is the solution that will make more people recycle. Many of the respondents request more interesting and fun information and facts how they contribute when the recycle. They explain that if you know that you are doing something good and you get numbers or examples that show it, you get more aware.

> "*It would have been nice to know how much it contributes and little more numbers that show that… […] …But then I think that more people had recycled if they knew how much of that waste would be new things, then people would be more aware of what they are doing and why they do it.*" (Respondent 13)

The respondents that said they want more and clearer information about what should go where in the recycling room and why. These respondents often talked about their insecurity about what should go where and why. Many said it is because of the uncertainty they have about what should go where and how to recycle correctly that they sometimes throw different packings in the garbage because they are afraid of recycling it wrong. One respondent said it should be easy to do it right but that is not the case today. A suggestion a few respondents had was that the municipality or the hocusing company should make a clear folder or a list that says what should go where and why and also with examples.

One of the areas where the interviews were conducted, was a multicultural area. This was considered a reason why recycling did not work as well there according to several of the respondents. They said that the information was only in Swedish and that the people who live there do not know anything about recycling or how the system in Sweden works. One

respondent explained that it is understandable that if they do not have any knowledge about recycling it cannot be easy to do it right.

One of the respondents suggested that this could be solved by putting better markers and symbols and pictures on the containers and in the recycling facilities. She said that symbols and pictures speak all languages: *"It should be large printed symbols on the containers because we think they may be language difficulties, so clearer symbols instead. It looks similar in all languages"* (Respondent 4). According to most of the respondents there was a need for better and clearer information on almost all containers. One respondent said that the markings in the recycling rooms and on the containers are bad and unclear and it makes it harder to recycle. Another respondent says that she usually opens the containers to look what should be where because the markers and information are so bad.

Another problem with the information the respondents brought up was that the markers on the containers often says only plastic, metal or glass, not plastic packaging, metal packaging and glass packaging. Then it is not that easy for people to know what they can throw in and not, explained several of the respondents. They also said that it seems that some people do not know that the waste system in the recycling rooms is the same as the once in the recycling stations. One respondent says that: *"It would be better markers where you can throw what, glass packaging and one for coloured glass and one for with glass, and maybe have the same signs as at the recycling station, so you know they should be sorted in the same way."* (Respondent 10)

Some of respondents also thought that information about recycling needs to come out more often. According to the respondents did information only come out when something has happened or when someone has recycled wrong: *"I think that those brochures need to come out a little more often, not just after someone has thrown something wrong"* (Respondent 10). Another respondent says that it was a long time ago the municipality or the housing company informed more generally about recycling and that it needs more generally information because there are many new people that have moved in that maybe do not know enough about recycling.

The knowledge that the information materials provides, is also competences and know-hows that the respondents need to know to be able to perform recycling. So, information can be seen in two different ways, first as a material where the information needs to inform the respondents how to recycle and where, second, information about recycling as knowledge or know-hows, knowing how to recycle and why and knowing what is what in a packing. As Shove, Pantzar, Watson, (2012) say "Knowing in the sense of being able to evaluate a performance is not the same as knowing in the sense of having the skills required to perform" (Shove, Pantzar, Watson, 2012 p. 23). One example of this is that the respondents needed clearer information material in the recycling room and at the station that they are only supposed to leave packings in there for recycling, but they also needed *competences* or knowledge what a packing is and what it is made of to recycle.

6.3 Competence

The element competences are connected to what knowledge, know-hows and skills that are required to perform the practice (Shove, Pantzar and Watson, 2012). Competences also refer to the various forms of skills, knowledge, abilities, and understanding that can inform a practice (Shove, Pantzar and Watson, 2012). The themes that had a clear pattern for this element in this study was *knowledge about recycling* and recycling as a *daily routine.*

6.3.1 Knowledge about recycling

The three elements as explained before is connected to each other (Shove, Pantzar and Watson, 2012). The competence of having knowledge about recycling is strongly connected to the material information and the knowledge it provides. Knowledge about recycling as a behaviour and as a method was both important for the respondents to perform recycling.

Knowing how to recycle, knowing what is what in the different packing and what should go where was important knowledge that the respondents needed. What should go to the recycling station and what should go to the bigger recycling central and so on. The respondents also wanted to know why, why should they recycle and why should the paper packing go in one place and the plastic in another.

Knowledge about how to recycle and knowing where to put what seemed to be the most important know-how and skill for the practice or to know how to recycle right maybe is more accurate. Many of the respondents says that they recycle as much and as good as they can, but that they still are not sure if they do it right. One problem they talk about is that nobody has told them how to do it or told them they do it wrong, as one respondent say: *"No one have told us how to recycle, they have missed this step"* (Respondent 13), while another says: *"I imagine that I know what happens, but I do not really know"* (Respondent 16). There was one respondent that said she thinks she do it right but maybe she do everything wrong, nobody has told her yes or no. When asking her if that is something that affects her level of recycling she says no and explains that it must be better than throwing everything in the garbage. Compared to another respondent who says that the uncertainty she has affected her level of recycling by throwing away what she does not know where it should be in the household garbage.

 All the respondents said that they needed more knowledge about the different materials the packaging's are made of in order to know where they should put what. One respondent said that when he does not know what the packaging is made of or is uncertain he throws it in the household's waste which can be seen as a skill or competence he did not have and needed to perform recycling. Another thing the respondents thought was problematic was when a packing was made of different materials. This was something that many of the respondents saw as a problem and a barrier for recycling. One respondent did have this knowledge, he knew that what the material is made of the most is where you put the packing: *"If you do not know or if they are mixed with paper and plastic then you have to read, it is not always it is so easy to know, but it is what it is mostly made of, if it is more plastic than cardboard, then should it be thrown in plastic, I have heard that".* (Respondent 10)

Another thing the respondents was uncertain about was what should go in the recycling room and what they need to take to the big recycling central. This is an important skill to know to recycle right because the recycling stations and rooms are only for packings and nothing else. This knowledge seems to be inadequate among some of the respondents, when asking them about it they were not sure what should go where and why. This seems to be a common thing people do not know and a knowledge that you are required to recycle correctly. Most of the respondents seem to know that bigger things should go to the

recycling central, but many complained about their neighbours that leave furniture's and bigger boxes in the recycling room. When asking them why they think people do it, they say it is because people are lazy, do not have the knowledge or do not care.

Knowing why they should recycle was another thing the respondents wanted and also needed to know, as explained before most of the respondents did recycle because they knew it is good for the environment. When asking them more about this, there was many of the respondents that did not know how it is good for the environment. Having knowledge about recycling and knowing that it is good because it becomes new things was something the respondents thought was important to know. Some to the respondents claimed that there are people that do not believe that the waste that goes to recycling actually gets recycled. Many of the respondents have heard both from neighbours and friends that it is just a waste of time to recycle because everything gets burned anyway, which also some of the respondents have thought about. According to the respondents do many people lack the knowledge or are insecure about recycling, which becomes a barrier for them. An important competence to have for the respondents were to have the knowledge to know the truth about recycling.

"Sometimes I think they take everything and burn it, I do not really know if they sort properly, like this with glass and metal, they are not properly sorted and then maybe not the others will be right either or I think". (Respondent 10)

When asking the respondents about what barriers they think exist for recycling many said lack of knowledge. Another thing they have heard people say is that the car that comes to pick up the waste is mixing everything together. The truth is that the car has different compartments for different materials, which one respondent knew but thought that many people do not know. He said when people see the car throw all the different waste in the same car they start to not trust the waste system, as he explain here: "*people do not believe in things before they see can see it".* This was something that some of the respondents also thought was true or they were not sure that is was true or false. When asking them if this affected their recycling behaviour most of them said no, they thought that it must be good for something otherwise would we not recycling this much in Sweden. While some of them said that sometimes when a package was sticky and disgusting they threw it in the garbage and thought that it will get burned all together anyway, so it was okay. When asking them how to solve this, that many people do not trust the waste system most of the respondents said that people need more knowledge about recycling. They said that it needs more and interesting knowledge how to recycle, why and what happens with it in the process. Also knowing why, you should recycle and why some things should go in the recycling containers and other stuff to the recycling central was something that the respondents wanted to know. Many said that they know how and where they should recycle but not always why. As one respondent says:

> *"I think that many people do not understand why, why should that be put there, what is the difference, what happens at the recycling station… […] …, why should we do it, why should food packaging be recycled, and where is the difference between them and an A4 paper. Why should not they be in the same container. It is the same as envelopes, they should they not be placed in paper recycling".* (Respondent 3)

The focus on lack of knowledge was a pattern that was clear in all interviews. All the respondents thought that more knowledge about recycling was needed to get more people to recycle. They said that without knowing why you should recycle, why it is good and important and how the process works people will still believe in the stories that people tell. A lot of the respondents also wanted to know more about why, why should not a glass be thrown with the glass packaging, why should not envelopes be thrown together with newspaper or paper packings. What are the differences of some materials and what is differences between a plastic packing and a plastic item that is not a packing. They also

wanted to know what happens if they throw things in the wrong place and what consequences it would lead to.

6.3.2 An everyday routine

One thing that seemed to be important for the respondents and one thing they said they need to recycle was a routine. Most of the respondents said that recycling is a daily activity for them, one says it is like going to the store and buy food "*you do it all the time*", another respondent compare it to cleaning the apartment. Recycling appears to be an activity that the respondents does not think about that much, it has just been a daily activity or habit they do every day. This is also connected to the meanings *environmental effort* and *a must to a habit*, because some respondents recycles because they want to live more sustainable and do something for the environment where recycling is a daily routine. Other do it because they have created a habit through the years, from something they needed or should do because of money or for norms and structures in the society.

When asking the respondents how and where they have learned to recycle many of them said because family, friends or neighbours have done it. It has been a practice that they have taken on by influences in their areas and by the people around them. As Reckwitz explain, humans act both autonomously and according to social norms (Reckwitz, 2002), which seem to be the situation here, there are both respondents that recycle autonomously as just a habit and those that do it because of norms that exist among their family and friends. Many of the younger respondents says that they have recycled when they were younger and lived at home with their parents and that have influenced them to start doing it themselves: *"I have looked at how Mom and Dad are doing. My parents have recycled"* (Respondent 9). While the older respondents have done it because of society and the development and greater focus on the environment. Some also says that that there housing company or the municipality have informed them or pushed them to do it by having access to containers and a recycling room nearby.

It appears that the practice for recycling has developed over time and learning by doing. One respondent says that she has never gotten any general information about recycling but that she has just starting to do it and learned along the way. When asking the respondents how and when they have learnt to recycle many of the respondents do not have an answer, they just said that it something they just do or have learned through the years: *"So, it has been so that you learn a little bit on the way, I cannot tell you how and when, it has just come."* (Respondent 11). Shove, Pantzar and Watson (2012) write, "learning through doing goes on all the time and often without noticing" (p. 51). For the practice of recycling it seems to be a combination of learning by doing, but also a purposive learning process mostly connected to environmental lifestyle and feeling good.

7 Discussion

In this part, I will discuss my findings from the study. I will do this by returning to my research questions and discuss them from a practice-based approach, based on the results of my study and in relation to previous research. Applying practice theory as the analytical framework, has been helpful in describing and explaining recycling and as well for improving future working with recycling. My aim for this study was to understand the respondents recycling behaviour, how they recycle, why and why not. I also wanted to get a deeper understanding of the respondent's barriers and motivations for recycling, that is, what factors that hinder the people to recycle and what factors motivate them to recycle (McKenzie-Mohr, 2000). In my analysis I have applied Shove, Pantzar and Watsons (2012) three elements of a social practice *meanings*, *materials,* and *competences*, three elements which they argue are creating and maintaining a practice (Shove, Pantzar and Watson, 2012).

The recycling practice is a complex practice because of the many components that influence it. The meanings and purpose of the practice has changed over time by influences and from changes in materials and competences and by the agents that perform the practice. According to Shove, Pantzar and Watson (2012) meanings are strongly connected to materials and competences of a practice and to the agents that perform it. The result of my study shows that recycling is often associated to the deeper sense of feeling good and doing something good. According to the respondents, the main reason for recycling was that they wanted to do something good for the environment. Environmental knowledge and awareness have been shown to play an important role in shaping waste management behaviour (Barr, 2007) which also this study shows. The respondents environmental awareness also seemed to be a motivation for their recycling behaviour, and according to many studies, environmental awareness have a positive relationship with sustainable behaviours (Barr, 2007: Abbott, Nandeibam, O'Shea, 2013). The analysis, however, show that focus on the environment also had a deeper meaning for the respondents' where the practice of recycling was associated to feeling good and doing the right thing.

Barr (2007) have studied factors that influence the recycling behaviour, he believes that a primary motivator for environmental behaviour such as recycling is the essential motivation to act to feel good (Barr, 2007). In my study, the respondents expressed both positive and negative feelings connected to recycling. The feeling was often connected to the respondents recycling level how much they recycled and how much they were involved. The respondents often said that recycling made them feel good about themselves and that they were doing a good thing for the environment. Recycling has for many people been an easy and small thing to do for the environment (Barr (2007), it has also been found, being a way for people to lessen their guilt from not living environmentally friendly or sustainable enough. (Fisher et al., 2008). The respondents that had negative feelings connected to recycling, got those when they did not perform the practice or when they ignored it because the packaging was messy or sticky which seemed to be grounded in laziness or lack of knowledge.

The ideas and meanings of recycling seem to be focusing on feeling good and doing something that feels right to do, but it is also connected to doing something because others do it and because society influences you to do it. The moral and social motives were something that was clear among the respondents, they often said that they felt that they needed to recycle because others did it and because it was so much talk about recycling in the media and in society. Studies show that if others recycle: friends, family or neighbours is it more likely that a person will recycle themselves (Abbott, Nandeibam, O'Shea, 2013: Barr, 2007). Also, in this study, many of the respondents said that they had started to recycle because family, friends or neighbours did it. This was also something that

influenced how people performed recycled, they looked at how other people did it in their neighbourhood and among their friends. This was something that explained both why some people recycled and why some did not or did not recycle everything. Feedback from others that belong to the same social group that passes messages that some behaviours are "normal" and "what most other people do" can be used to encourage people to adopt behaviours such as recycling (Barr, 2007). A positive development of this that the respondents talked about was that they felt that recycling had become a habit in their daily life and something that is just normal to do. The respondents compared recycling with other daily activities like going to the store and buying food or to cleaning the apartment. According to Thomas and Sharp (2013) recycling is seen as a part of everyday routines (Thomas and Sharp, 2013). Some of the respondents even said that they do not reflect on recycling they just do it. For some, recycling has become such a strong habit that they do no longer question it, meaning that it is just like any everyday chore. As Reckwitz (2002) argues, social practices are "routine" and "recursive" as they can change over time because of a variety of elements and that people act both autonomously and according to social norms (Reckwitz, 2002). A practice produces and gets reproduced by its practitioners and the recruitment of new once that starts to perform the practice (Shove, Pantzar, Watson, 2012). The practice of recycling has evolved and changed through time together with the practitioners and they have shaped the understanding of recycling and also created a social norm for it. According to this study, it seems like recycling as a norm is strong among the respondents and in their societies. Previous research also show that recycling is a common norm in many societies (Barr, 2007: Abbott, Nandeibam, O'Shea, 2013: Thomas and Sharp, 2013).

When looking deeper into the practice of recycling it seems as the environmental concern and feeling good is not the only thing that motivates or have made people perform this practice. Accessibility in form of closeness to recycling stations and space for recycling is also important. They are what Shove, Pantzar and Watson (2012) calls "materials" which produce and maintains the practice (Shove, Pantzar and Watson, 2012). Accessibility was also something that motivated the respondents to recycle such as the closeness and the convenience of the recycling room they had was important, something which also other studies show (McKenzie-Mohr et al., 1995: Hage, Söderholm and Berglung, 2009: Abbott, Nandeibam and O'Shea, 2013: Barr, 2007). There were also studies that showed that greater accessibility increases the recycling level and improves the behaviour (McKenzie-Mohr et al., 1995: Hage, Söderholm and Berglung, 2009: Abbott, Nandeibam and O'Shea, 2013: Barr, 2007) and by making it visible amongst neighbours does it promote and sustain the social norm to recycle. (McKenzie-Mohr et al., 1995: Abbott, Nandeibam and O'Shea, 2013).

According to the respondents could also lack of access and availability to recycling become a barrier. For instance, lack of containers, full containers, disgusting recycling rooms and long distance between their home and the recycling station made the respondents less likely to recycle. The availability also affected how the respondents performed recycling, just like space. Many of the respondents said that recycling takes up a lot of space in the apartment and that it is something that they need to make space for. Having a system or fixing up a self-organisation for recycling in the home has been shown to support recycling as normalised behaviour and increased the recycling rates (Thomas and Sharp, 2013). All of the respondents collected the packages and waste in their apartments, but in two different ways, which depended on the availability and space they had. One part of the respondents had different containers, bags, or bins for the different materials, the other part had only one container where they stored both plastic, paper, glass, and metal and then sorted it out in the recycling room. The convenience and quality of the recycling room also affected how the respondents recycled and how accurately they could sort their waste. Previous research has shown that lack of space is the most widespread barrier to recycling (Miafodzyeva, Brandt

and Andersson, 2013). Access to recycling and space are basic requirements and materials for the practice of recycling and things that affect how the practitioners can perform and engage in the practice. Another thing that was needed to perform and engage in the recycling practice was information and knowledge about recycling, how the recycling system works but also knowledge how to sort the waste and knowledge on why you should recycle. This is connected to both materials and competences as it is both about the materials that is needed to perform the practice such as information, symbols, and sign where to put what in the recycling room and information material about recycling (such as brochures or other information materials), and also competences or knowledge how to perform the practice, too have certain skills and knowledge about the practice. The respondent's knowledge, how much they knew about recycling, about the different materials and the system all affected how and how much they recycled. For example, when the respondents were uncertain or did not know where to put a packaging they threw it in the garbage. Without knowledge about recycling and how to perform the practice, the practice would change or break. Lack of knowledge was also the biggest barrier to recycling both for the respondents but also for other people according to the respondents. According to Miliute-Plepienea et al. (2016) communication and information about recycling can improve the quality of recycling, such as regular awareness and clearer labelling of containers. The greatest barriers for young adults according to a study by Barr (2007) is that they do not have the information about recycling and do not know how to recycle or why (Barr, 2007). Many respondents also lacked knowledge on the benefits with recycling, why you should recycle, and how to sort specific materials, why some things should be thrown in plastic and some in paper and some things in the recycling central was something that many of the respondents lacked. It was also the kind of knowledge most of the respondents asked for, to know more about why.

Even if recycling is a common behaviour, there is still a lack of knowledge in many areas, and mistrust, which also was visible in the study. According to some of the respondents there were many people that did not trust the waste system or believed that things do not get recycled. Many of the respondents had heard from neighbours and friends over the years stories about that the waste does not get recycled after all, and therefore do they not recycle. The lack of knowledge here can be seen as a barrier to recycling, something that hinders people to do it. Thomas and Sharp (2013) show that providing services like recycling rooms and knowledge how to recycle both plays an important role in peoples recycling behaviour (Thomas and Sharp, 2013), which was also two of the biggest factors in this study that influenced the behaviour of recycling.

8 Conclusion

The purpose of this study was to understand how, why, and why not people recycle and understand what barriers and motivations people have for recycling. As discussed, there are many factors that influences the practice of recycling, making it into a complex practice to study. To understand the recycling behaviour of the respondents in this thesis, a practice-based approach was useful as it made it possible to study the practice of recycling, both the behaviour and the materials and social structures surrounding it. By using the practice-based approach, and the three elements – *meaning*, *materials* and *competences* this study made it possible to analyse and understand the multiple dynamics of the recycling practice in everyday life, and to see and understand the connection between these three elements. The practice-based approach made it possible to understand the deeper meanings and ideas that affect people's recycling behaviour and what deeper thoughts and feelings motivate and hinders people to recycle. It has also been helpful to identify the materials and competences that is needed for the practice and for the practitioners to perform the practice. The result showed that factors like access, availability, and knowledge are both barriers and motivations for people. The result suggested a need for more closeness and availability to recycling facilities and the need for more knowledge about recycling, specifically on how to recycle right and why. The study supports previous studies that information and knowledge does not necessarily make people take up a behaviour like recycling. It is more complex than that, many internal factors like values, interest, habits, norms, and awareness that affect people's behaviour. The result in this study also indicates that knowledge and awareness about the environment influences and is also a common motivation for people to recycle. Feeling good and doing something that others do was also a motivation and a reason people recycled. This study has confirmed many of the previous studies but also given a broader perspective of the whole practice of recycling. I hope this study can help both policy workers and future studies in organize, describe, and explain environmental behaviours like recycling and as well improve future working with waste management.

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10 Appendix 1

"Bra för miljön, vi måste ta hand om miljön, havet och allt detta." (Respondent 4)

"Jag har gjort det sedan de började återvinna, men det är väl av miljöskäl tror jag. " (Respondent 17)

"Då kanske de inte behöva ta ner så mycket träd, det är mycket naturresurser som behövs för att göra nya saker." (Respondent 11)

"Ja, man borde ju återvinna så mycket som möjligt, och det påverkar miljön väldigt mycket. Det borde inte hamna i naturen och skada djur och människor." (Respondent 7)

"För mig är det mer att det tar mindre utrymme i soporna. Om jag hade kastat allt i soporna skulle jag behöva gå ut med soporna ganska ofta, det skulle ha varit ännu mer springande. " (Respondent 8)

"Det är för miljön och att det förbrukar mindre energi genom återvinning istället för att göra nytt." (Respondent 10)

"Eftersom man gör en samhällstjänst och miljötjänst. Jag är van att återvinna och man får mycket information från nyheterna och också att andra gör det. " (Respondent 10)

"Vi har börjat tänka mer och mer på miljön, skulle jag vilja säga, det tycker jag är den största anledningen till att vi gör det." (Respondent 13)

"Men jag har aldrig trott att det var så mycket plast, jag förstår att det har ju alltid varit lika mycket plast det är just nu när jag ser det växa i påsen." (Respondent 13)

"Vi var eller vad vi ska säga, vi var tvungna att göra det, innan så slängde vi ju allt i papperskorgen ... [...] ... De sa att de skulle höja avfallsskatten om vi inte började återvinner och sorterar vårt avfall." (Respondent 1)

"Det har nog bara kommit ifrån samhällsdebatten, naturligt, att alla har pratat om det, och nu är det dags att börja återvinna." (Respondent 16).

"Det var när behållarna kom till affären ... så började vi med det. Vi har följt, om vi kan kalla det en trend det vet jag inte, men vi har försökt att hänga med. "(Respondent 4)

"Jag tycker det känns bra att göra det, det känns bra när jag gör det, och så gör man ju något bra för miljön, så det är att det känns rätt att göra det rätt." (Respondent 9)

"Man har börjat tänka mer och mer om miljön, skulle jag säga, det är den största anledningen till att vi gör det, så känns det bra i själen om jag slänger det där det ska vara." (Respondent 13)

"Det är bara en sak att göra ... eftersom det är en positiv sak, det har alltid varit en positiv sak, det har aldrig varit en fråga varför ska jag göra det?" (Respondent 7)

"Jag levde lite i förnekelse eller vad man ska kalla det, men sen tänkte jag att nä nu måste jag göra det, och så började jag." (Respondent 16)

"Vi har ingen ursäkt för att inte återvinna, för vi har det så bra här och kan återvinna precis utanför." (Respondent 9)

"Om återvinningen vid huset inte hade funnits skulle jag behöva åka till soptippen och då blir de ju genast ett steg till, att man måste göra ngt mer att man måste åka iväg och då kan de lätt bli att något slinker ner i dom vanliga soporna." (Respondent 11)

"Ja, men det är nog kunskapen och närheten till återvinningsstationerna." (Respondent 8)

"Just att man har den här, just de här nära till sopstationen och utrymme och någon form av rutin." (Respondent 13)

"Jag tror att många fler hade återvunnit om det fanns en standard i alla kök, för det är där det mesta av hushållsavfallet kommer ifrån. Att det fanns en trevligare eller dold lösning på den." (Respondent 13)

"Det är trångt! Det tar mycket plats, återvinningen har verkligen spridit sig i hela lägenheten och jag har tidigare bott i en villa och flyttat till en lägenhet för fyra år sedan och då märker jag tydligt skillnaden på plats." (Respondent 16)

"Det är verkligen inte platsskäl för det tar väldigt mycket plats, det tar jättemycket plats i lägenheten." (Respondent 17)

"Ja det är väl mer tydlighet, mer information. Ja mer tydlighet om varför, att alla lätt kan ta del av det så man förstår varför." (Respondent 2)

"Ja men information vad som händer sen det vet inte jag, eller vart åker de." (Respondent 15)

"Det behövs mer information både om vad som händer när man återvinner, och när man inte återvinner, eller när man återvinner fel, alltså informera om båda." (Respondent 10)

"De hade varit skönt att veta hur mkt det bidrar med och lite mer siffror som visar att… […] …Men sen tror jag att fler hade återvunnit om de visst hur mkt av de dom sorterar som blir nytt, då känns de som att folk hade känt sig lite mer medvetna om vad det är dom gör och varför man gör det." (Respondent 13)

"Det ska vara stora tryckta symboler på behållarna eftersom vi tror att de kan vara språkproblem, så tydligare symboler istället. Det ser likadant på alla språk. "(Respondent 4).

Det skulle vara bättre märkningar där du kan kasta vad, glasförpackning och en för färgat glas och en för med glas, och kanske ha samma symboler som vid återvinningsstationen, så du vet att de borde sorteras på samma sätt." (Respondent 10).

"Jag tror att broschyrerna måste komma ut lite oftare, inte bara efter att någon har kastat något fel." (Respondent 10).

"Ingen har berättat hur vi ska återvinna, de har missat detta steg." (Respondent 13)

"Jag tror att jag vet vad som händer, men jag vet inte riktigt." (Respondent 16)

"Om du inte vet eller om de är blandat med papper och plast så måste du läsa, det är inte alltid så lätt att veta, men det är det som det är mest av, om de är mer plast än kartong, då ska det kastas i plast, det har jag hört." (Respondent 10)

"Ibland tror jag att de tar allt och bränner det, jag vet inte riktigt om de sorterar ordentligt, så här med glas och metall, de är inte ordentligt sorterade och då kanske inte det andra heller är sorterat rätt, eller de tror jag." (Respondent 10)

"Jag tror att många förstår inte varför, varför ska den läggas där, vad är skillnaden, vad händer på återvinningsstationen… […]…varför ska vi göra de, varför ska livsmedelsförpackningar återvinnas, och var är det för skillnad på de och ett A4 papper. varför ska inte de ligga i samma, det är samma som med kuvert, de ska inte läggas i pappersåtervinningen." (Respondent 2)

"Så de har väl varit så att man lär sig efter hand lite, så va de väl, jag kan inte säga var och hur, de har nog bara kommit." (Respondent 11)

42