



# Changing Everyday Waste Sorting Practices

- A qualitative study of the relation between organisational strategic communication and everyday waste sorting practices in Sweden
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# Changing Everyday Waste Sorting Practices - A qualitative study of the relation between organisational strategic communication and everyday waste sorting practices in Sweden

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## Abstract

All EU member states are supposed to meet the EU goals for material recycling of consumer packaging waste. Despite having established systems for collection of packaging waste and recycling processes, Sweden has not been able to reach these goals. Now, responsibility for waste sorting has been moved from the producers to the municipalities, in the hope they by an overarching responsibility can meet the target goals. Municipalities are expected to implement a door-to-door waste collection system for private households, to increase the sorting and recycling rates of packaging waste.

However, while promising on paper, changes in people's everyday practices are notoriously difficult to implement from above. Indeed, waste sorting practices are socially constituted and routinised, which makes them challenging to change. The aim of this study is twofold. First, the study is to *provide basis for Vafabmiljö to establish a communication strategy*. Second, the study is to *explore how studies of everyday socio-environmental practices can inform communication for change*. Through an interview study with municipal representatives, I identified the communication strategies used previously in waste collection system change. And, through a focus group with residents I got a better understanding of everyday waste sorting practices. Analysed with the help of strategic communication and social practice literature, I then study possibilities for communication for change of everyday waste sorting practices. I identify social interactions, contingency of materials and physical space, facilitation of the system and contexts as factors affecting motivations to sort waste.

By basing the communications strategy on these factors, I expect that residents can be engaged in the implementation process. It would provide a socially anchored communication that can motivate adoption of the new system and changed waste sorting practices. In the conclusion, I also come to a surprising insight, which is that environmental perspectives are largely absent in both the interview and the focus group study. What implications a decoupling between human-environmental relations in the sustainable waste management discourse can have, can be a subject for future research in environmental communication.

*Keywords:* Strategic communication, social practice theory, environmental communication, waste sorting practices, municipal waste management, social change

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# Introduction

The globally increasing waste generation is putting many local authorities under pressure, both logistically and financially, since they commonly carry the responsibility for the waste management service (Knickmeyer, 2018; UN-Habitat, 2010). Municipalities in Europe are no exception and need to find innovative solutions to prevent resources ending up in incineration, landfills or as litter ([European Parliament](#), 2023). The challenge is a high consumption of products that in many ways are inevitable today – packaging. Such products are often used for a single purpose to contain and preserve items, and once it has fulfilled this, it is discarded as waste. The packaging material is best recovered through material recycling, entailing fewer raw materials to be used ([Naturvårdsverket](#) n.d. A.; [Avfall Sverige](#), 2022, A). In 2018, EU introduced new recycling goals for packaging materials, at least 65% of all packaging waste should get recycled by year 2025, which member states are targeting to achieve a more circular and resource efficient economy ([Europaparlamentet](#), 2018).

In Sweden, we have had *producer responsibility* since year 1994, which made the producers of consumer packaging responsible for the financing and collection of the disposed packaging waste they enable consumers to generate ([Avfall Sverige](#), 2022, B). A disposal ‘bring system’ was established for villa households, a set of containers for packaging waste (metal, glass, paper, plastic, and newspaper) placed nearby a neighbourhood, where the villa residents bring their sorted packaging waste. The bring system is managed today by the Trade Association FTI (Förpacknings- och Tidningsinsamlingen), which is representing the packaging producers. Additionally, most villa households have their own curb side waste bins for mixed household residues (not packaging) and food waste, managed by the municipality to collect and dispose of ([Avfall Sverige](#), C).

Despite the system in place, not all produced packaging makes it to the recycling containers. According to national statistics, 1,5 million tonnes of new packaging were put on the Swedish market in 2021, where around 0,9 million tonnes were disposed for material recycling (Statistikmyndigheten, 2022). However, only four out of nine of the EU-established material recycling goals were reached in Sweden in 2021 ([Naturvårdsverket](#), n.d. B). The packaging waste that is not disposed for recycling by households, is assumed to be disposed in the mixed fraction of



household residues and sent for ‘energy recovery,’ (incineration), which is generally considered a waste of resources (Naturvårdsverket, 2022).

How to prevent packaging waste ending up in the mixed residues is thereby one of the main problems to address. Therefore, the responsibility for the collection of packaging waste was decided to be transferred to the municipalities from the 1<sup>st</sup> of January 2024, where a *door-to-door waste collection system* should be implemented in all municipalities by 1<sup>st</sup> of January 2027. The new system is providing curbside disposal of sorted packaging waste in a personal waste bin, which brings the access to disposal of sorted packaging waste closer to the households, and thereby make it easier to dispose waste for recycling. Some municipalities have already implemented such on their own behalf (Naturvårdsverket, n.d. C). Research on implementation of such system has shown it is an effective method to increase collection of sorted household waste (Laurieri, et. al., 2020). This can enable increased recycling rates, whereby Sweden can meet the EU recycling goals and reduce environmental impacts (Naturvårdsverket, n.d. D). The municipal organisation *Vafabmiljö*, which is made up by 12 member municipalities in Västmanland’s County, along with Heby- and Enköping Municipality, have the responsibility to organise and manage the waste service for all the residents in the area (Vafabmiljö, n.d. A). The municipal organisation has, as many other Swedish municipalities, from January 2023 started the process of planning the implementation of the new waste system (VafabMiljö, n.d. B).

However, the municipalities’ provision of the new waste sorting- and collection system will not make its residents change their waste management practices and sort more packaging waste on its own. Scholars (Kirkman & Voulvoulis, 2017; Steg & Vlek, 2009; Barr & Gilg, 2006) emphasise the value of involving the public in planning and decision making of an intervention to facilitate a democratic and socially legitimate process. Laurieri, et. al. (2020) stress that municipalities should involve the residents to create awareness and locally suitable schemes to engage residents to adopt the new sorting system (Laurieri, et. al., 2020). In *Vafabmiljö*’s case, the residents are in the early stages not involved in the planning or decision making over the implementation of the new waste system, which is done by *Vafabmiljö*’s project group. This will put extra emphasis on the communicative activities to make the residents engaged in the process of the implementation. In *Vafabmiljö*’s *municipal waste plan*, it is emphasised that their strategy to increase the waste sorting should consider social aspects of sustainability so that “*communication and implementation will reach the target group it is directed to*” (Vafabmiljö, 2020, p.19). This framing stress what have been emphasised above and will be the guiding position in this research.

To engage society to change to more pro-environmental practices, i.e., having little harmful impact or even a positive effect on the environment (Steg & Vlek, 2009), can be challenging. On this note, scholars are critical towards the conventional ‘communication’ approaches targeting the “information deficit,” which they mean only appeals to conscious and rational behaviours. Such approach is argued inadequate for engaging social and pro-environmental change, which often is steered by values, norms, contexts, and emotional entanglements that needs to be understood by the communicator (Godemann, 2021; Ockwell, et. al., 2009). Thereby, communication needs to be considered a *social interaction* which stipulates a two-way interaction where meanings are shared, co-created, and negotiated (Van Ruler, 2018). However, communication does not only need to be understood as interaction between individuals in a conversation. van Ruler (2018) suggests that organisational work should be integrated in the social context, which enables negotiation of meanings and actions (van Ruler, 2018). Adding to the understanding of changing practices, Hargreaves (2011) stress that communication strategies targeting changes for pro-environmental behaviours, are often too narrow in its focus on *cognitive aspects* as values, attitudes, and norms. He suggests a wider perspective including studies of *social practices*, to help better understand the unreflected and unquestioned doings in the everyday, that impact possibilities of change in everyday practices (Hargreaves, 2011).

## 1.1 Aim

A first, and practical, aim of the study is to provide a foundation for Vafabmiljö to establish a communications strategy, anchored in villa residents’ social contexts, to adopt new waste sorting practices. A second, academic, aim is to contribute to the understanding of what studies of everyday social- and environmental practices can bring to the table in a communication strategy for change.

### 1.1.1 Research Questions

The research questions to guide this study are:

- How have other municipalities gone about to communicate regarding the implementation of a new waste collection system?
- How do the identified communication strategies relate to the residents’ sense making of waste sorting practices?
- In what way can understanding of waste sorting practices, inform a communications strategy to increase sorting of packaging waste in households?

## 1.2 Disposition of the Study

The research is built on two empirical parts, corresponding to the first two research questions, and a third synthesis part. In the first part, corresponding to research question 1, I identify successful aspects for changing everyday waste sorting practices, by looking at how similar waste systems have been introduced elsewhere. In the second part, corresponding to research question 2, I explore how communication activities match the practices of waste sorting in the households. In the discussion, corresponding to research question 3, I use part 1 and part 2 to discuss how an understanding of social practices can inform communication strategies.

## 1.3 Research Background

### Motivations to waste sorting

Based on the work of Knickmeyer (2019), I have selected five factors motivating waste sorting practices, to address in my study. One factor that is found to decrease our motivation is *knowledge barriers* when sorting appears complicated, for example composition of varied materials in packaging making it difficult to segregate, different disposal systems in different areas, and varying labelling explaining how to sort the product. This can also decrease the *perceived convenience*, which in turn decreases willingness to use a recycling system; on the contrary, the easier it is to understand and access it, the higher the motivations are to use it. *Trust* in the function of the system is also emphasised as a factor for using an authority-initiated recycling system. The trust is maintained through continuous evaluation of experience and perceived function of the system by the responsible authority, to provide the right service. *Attitudinal barriers* are also a factor and are shaped by the perceived social or environmental benefit of the time spent on the practice (connected to convenience and knowledge). A common example is the misconception that the waste will be incinerated no matter it has been sorted or not, which creates an attitude of indifference to invest time and effort in the sorting practice. A final factor to highlight is *habits*, which can prevent practices through routinised and unquestioned everyday doings. However, since waste sorting can become a routinised behaviour, it also has a great potential of becoming a pro-environmental habit. For a new habit to be established, it requires changes in both the physical environment and provision of materials, and changes in social norms, knowledge, and contexts during a longer period of time. These described motivations are, among other aspects, argued enabling waste sorting practices and

adoption of a waste sorting system, if addressed by the implementing organisation (Knickmeyer, 2019).

### 1.3.1 A social dimension of waste sorting

In order to complement Knickmeyer's work, I turn to the work from Lind and Salomonsson (2019). They also compiled knowledge from conducted studies on waste behaviours to understand what motivates household waste sorting. A relevant contribution to stress from their study is that the technical and logistical aspects are well documented and discussed concerning the introductions of new waste management systems. However, they highlight that the reviewed studies conclude that more studies are needed considering the households' sorting practices *prior* to the introduction, to understand the actual impact of the intervention. Their review also emphasises that different contexts influence households' sorting practices and are often found more complex when several aspects motivating our behaviours are considered (Lind & Salomonsson, 2019). This aligns with the other social- and environmental scientific studies I reviewed of waste management behaviours (Steg & Vlek, 2009; Kirkman & Voulvoulis, 2016), stressing that waste sorting is connected to social values-, norms-, contexts, and habits. Additionally, literature on *social practices* stress relevance of identifying and understanding the everyday practices we take part in, collectively negotiate, regenerate or maintain, such as waste sorting. Social practices are suggested to be studied in the setting where they are naturally practiced, so meanings of situated aspects can be conveyed (Hargreaves 2011; Joosse & Marshall 2020; Nicolini 2017). This would contribute to fill the gap in understandings of households' sorting practices, emphasised in Lind and Salomonsson (2019) study, and provide a knowledge base for a more effective and socially relevant introduction of the waste collection system.

### 1.3.2 The role of communication

To understand the residents' practices and what motivates them to engage in the practices are one thing. The next step is to understand how to communicate to target those practices and motivations, to encourage social changes in accordance with the new sorting practices. The role of communication alongside implementation of a waste management system is discussed in Kirkman and Voulvoulis (2017) article, stressing the need to include elements of two-way interactions, where the residents' concerns and questions are acknowledged. They also emphasise the value of involving the public to understand the need for the intervention, rather than just have to accept it. The communication between the municipal authority and the community residents is an important link for mutual understanding, integration, sharing of experiences and knowledge (Kirkman & Voulvoulis, 2017). The role as

an *authority*, is discussed by Barr and Gilg (2006), who argue that social factors affecting behaviours and practices are important to understand as a governance body. If not, there is a risk that plans for implementation of a system does not match the real social or community culture. The authors uphold a critical stance towards policies' rationalisation of behaviour change and its aim to fill an action-gap [practices] with awareness, knowledge, and information. The authors mean that such approach often is unproductive when it comes to behaviours change towards environmental actions (Barr & Gilg, 2006). The critique towards informative communication to motivate behaviour change, is shared by scholars, emphasising a required shift from an 'information deficit' approach assuming that more and better information will make us change behaviours. What they argue for is an approach that takes social contexts, values, and emotions into account in the communication (Ockwell et. al., 2009; Godemann, 2021; Barr & Gilg, 2006).

# Theoretical Framework

My theoretical framework consists of two theories relating to the two empirical parts of my study. The theories are: *strategic communication* to understand how the municipal organisations work to motivate their residents to adopt a new waste management system, and *social practice theory* to understand the everyday routines and practices related to the residents' household waste management. These two different theories complement each other in a framework in the following ways. The strategic communication comes close to more conventional communication theories that commonly inform social change campaigns. It will help me to identify in what way motivations to sort waste have been targeted and how the strategy is assumed to influence the behaviours to promote change. The theoretical lens of social practice is aimed to bring understanding of the everyday practices of waste sorting that the communication is targeting, and thereby be able to say something about how well anchored the strategic communication is in waste practices. However, at theoretical level the theories are difficult to combine because of their different points of departure, namely strategic communication's individual cognitive approach versus the social practice departure from studying our social 'doings and sayings'.

## 1.1 Theoretical framework part 1

The first part of this study focuses on how other municipal organisations, which have implemented the waste management system, communicated with their residents before and during the implementation. To make sense of and understand the methods and strategies they have used to motivate their residents to adopt the system and what implications it had, I used theories of *strategic communication approaches*.

### 1.1.1 Strategic Communication

For most organisations, the communicative activities can be considered *strategic*, in this sense that activities are organised, planned, and expected to achieve a specific result (Cox, 2010; Fredriksson & Pallas, 2014). Strategic communication

is designed to achieve organisational goals, which are manifested in the type of communicative activity that influence targeted audiences in a specific location at a specific time (Werder, 2014). It is important that messages reflect the “*motivational, cognitive and behaviour characteristics of the audiences*” for these messages to impact the audiences (Werder, 2014, p. 270). Scholars also stress the importance of redefinition and reformulation of strategic messages, depending on the contextual norms, rules, and ideas the organisation is connected to, and in what arena the communication operates in (Fredriksson & Pallas, 2016). In short, effective strategic communication is situated in the communicative context. This entails that an organisation needs to understand its audience and its context to apply the appropriate strategic communication approach, or combination of approaches, to target the right motivations (Werder, 2014).

Typically, six strategic message approaches are discerned (Hazelton, 1993; see also Werder, 2014). The identified functions are *informative* (based on facts, creates awareness, assumes a rational and motivated audience), *facilitative* (provides resources for change), *persuasive* (appeals to emotions and values), *power* (or coercive; reward and punishment), *bargaining* (selective information, differentiate groups), and *co-operative problem-solving* (jointly define problems and solutions). These strategic message approaches have related anticipated goals and impacts on the audience as well as anticipated meanings and responses that the audience will attribute to each approach (Werder, 2014). However, mainly three of the strategic message approaches are applicable to my empirical material and will be used in the analysis, namely *informative/awareness, facilitative, and persuasive*.

While the above-mentioned approaches are very influential, there is also work challenging it. The work of Ockwell, Whitmarsh and O’Neill (2009), Cox (2010) as well as Tyson and Unson (2006) emphasise that communication strategies need to consider values, norms, and emotions. This complementing perspective can challenge mainstream understandings of strategic communication approaches when applied to target behaviours for social- and environmental change. In my study I use this perspective as the stepping stone for combining strategic communication and social practice theory insights.

From the literature discussing strategic communication, I will use the following concepts to guide my analysis: *informational strategy, awareness, facilitative strategy, persuasive strategy, behaviour, attitudes, values, norms, rationality*

## 1.2 Theoretical framework part 2

The second part of the study is based on a focus group held with private villa residents, discussing their household waste management practices, and how the participants related communicative material to that. The practices discussed, are interpreted using *social practice theory*, to shed light on the often-overlooked knowhows, social norms, habits, and materials that constitute a practice.

### 1.2.1 Social Practice Theory

Social Practice theory helps to identify human activities, in relation to their material and discursive contexts (Reckwitz, 20002). Practices are also constituted by the material world, objects, shapes activities (Nicolini, 2017). Materials thus have a direct impact on human activities (Nicolini, 2017; 2012). Joosse and Marshall (2020) argue that practices are learnt and reproduced by ‘doing’ and *practical knowledge* is thereby connected to its specific practice, rather than abstract knowhow and discursive consciousness only (Joosse & Marshall, 2020).

Social practices are locally situated, which entails that knowledge and identities are reproduced in *that setting* (Westberg & Waldenström, 2016). Reckwitz (2002) describes social practices as *routinised* behaviours, depending on the constitution materials- skills- and mental aspects as for example norms. However, a routinised practice can be assumed requiring a *stability* for the practice to continue and be reproduced in a routinised way (Reckwitz, 2002). Practices are thereby understood to be contextually, socially, materially, and historically contingent, which steer and reproduce social behaviours. Social practices are understood to be made up in the interaction between the elements *competences* (knowledge), the *meanings* (mental, i.e., social norms), and the *materials* and to other people. Thereby, changes and development in the element of *competence*, *materiality* and/or *meanings*, result in a continuous transformation of practices (Shove, et. al., 2012).

The concepts of participation and reification help to understand changing social practices. Participation is by Westberg and Waldenström (2016) understood as the interaction between people and their (re)interpretation of activities, knowledge, and experiences in an *ongoing process*. Reification is described as a *fixation* of meanings of experiences, knowledge, and activities, resulting in static attitudes, routines, and ways of knowing, which make critical thinking and openness for changes in practices more difficult. Therefore, the reified routines and values, interdependently performed by the participants, need to be affected for a change in practices to happen from ‘within’ (Westberg & Waldenström, 2016). However, changing contexts are common to deal with in practices to maintain stability (as emphasised by Reckwitz 2002). Thereby will changes, that are not obvious or



motivational enough for the practitioners, be effective for changing practices (Westberg & Waldenström, 2016). Hargreaves (2011) argues that interventions benefit from being made more prominent to participants, for example changes in the material environment, to make them aware of the practices. This can re-materialise routinised unrecognised reified behaviours and connect them to the contexts of the everyday. Hargreaves (2011) mean that this can lead to reflection and reinterpretation of ways of knowing, meanings, and routines, and thereby changes in the practices (Hargreaves, 2011).

In this study I use social practice theory to analyse the focus group material and I will specifically use: *social practices, materiality, knowledge, meanings, participation, and reification.*

# Research Design

The research design is also divided into two parts. The study has an overall qualitative research approach where I have collected empirical data by conducting individual interviews and a focus group. The methods for the data collection are described separately, starting with the *Communicators*, the municipal representatives, thereafter the *Residents*, my participants in the focus group. Thereafter I describe the analysis of each part in the same order. The research was conducted in this divided manor, and therefore it felt natural to structure this section in the same way, although some overlap in analysis process occurred towards the end. This section ends with reflections over my role as a researcher, the role of Vafabmiljö in my study, and concludes with ethical reflections.

## 2.1 Data collection

The thesis is based on a qualitative research approach using two types of interviews to collect data, which according to Creswell and Creswell (2018) can provide a better and broader understanding of the social processes and activities that are studied (Creswell & Creswell, 2018). This is also emphasised by Joosse and Marshall (2020) describing a “toolbox approach”, using different methods for data collection. The variety of data collection methods can provide inclusivity for capturing different ways of expressing knowledge, experiences, and everyday routinised aspects of practices (Joosse & Marshall, 2020). The data collection methods used in this study consist of both semi-structured individual interviews with communicators, as well as a focus group with private villa owners. Semi-structured, open-ended interviews can according to Creswell and Creswell (2018) allow the interviewee to speak more freely about the topic and give space for personal reflections. The focus group can provide a deeper understanding of how the participants together make sense of their practices (Creswell & Creswell, 2018) of household waste management by discussing a commonly relatable topic. By relating and reacting to each other’s experiences, social norms related to waste sorting can be highlighted. Also, informative materials were shown and discussed in relation to their practices.

The choice of research is based on my social constructivist positioning in understanding my surrounding, which in this study guide my choice of methods for data collection and interpretation of the empirical material. The constructivist approach will enable me to interpret meanings and understandings that the participants in my study express in relation to discussed situations, materials or other people, in interaction with me or among other participants (Creswell & Creswell, 2018). My interpretation will thereby be a re-interpretation of the participants' own interpretation of their practices, which will be regarded in the analysis of the data. Below, the two methods for empirical data collection are described.

## 2.2 Part 1 - Communicators

The first part of the study is based on a first selection of the relevant municipalities outside of VafabMiljö's operational area Västmanland's County, Heby and Enköping Municipality. The selection of municipalities was based on an annual statistical report from the trade association *Swedish Waste Management (Avfall Sverige)*. The report provides data and statistics about municipal waste management, which is reported from the member municipalities. The report lists municipalities that already have introduced one of the of *door-to-door waste collection systems*, percentage of the households in the municipality who have the system, and the year of introduction. These three aspects, alongside with a geographical spread in Sweden that provided varying demography and urban and countryside contexts, were the foundation for a first selection of ten municipalities.

A second step was to conduct online search on the selected municipalities' public webpages, to get an overview of their online-based information and communicative activities for the residents in their municipal area. Additionally, I reviewed municipal waste plans that describes the current conditions, actions, and future goals regarding the waste management in the municipality. The relevant information was, as a third step, gathered and compiled and presented to a project group at Vafabmiljö, to get an 'expert' opinion on which municipalities' communicators would be relevant to contact for an interview. After a final selection of five municipal organisations, an interview guide was established. It concerned questions of communication activities related to the introduction of the new system, e.g., experiences, integration of the residents, messages, and evaluations of the communication.

The selected interviewees were contacted through email with an invitation to participate in the research project. When the contacted person could not participate, I asked to be referred to someone else in the organisation who could participate.

Thereby, the interviews were conducted with both communicators, project leaders for the introduction of the system and technical managers, who all had insight in the communication regarding the introduction of the system. The interviewees will therefore be addressed as ‘municipal representatives’ or ‘interviewees’ throughout the study, since everybody was not communicators. The interviews were conducted exclusively through ‘face-to face’ online videocalls (for both parties’ convenience) and were documented through audio recordings. Since I ended up not only interviewing communicators, I adapted the interview guide slightly to the role of the interviewee.

## 2.3 Part 2 - Residents

The second part of the research was a focus group with residents from villa households living in Vafabmiljö’s member municipalities. The focus group was divided into two sessions, where the first session focussed on waste sorting practices, and the second session how the participants related to and perceived communicative materials about waste sorting. Each session had a related interview guide to help me direct the discussion in the intended direction.

Through the focus groups I intended to study social practices among the participants. Since waste management is in most cases an everyday mundane practice in households, it can be difficult to associate to and describe what you actually do without any stimulation. Joosse and Marshall (2020) emphasise that only relying on conversational interviews when studying practices can risk that respondents say what seems sensible at the time of the interview; a post-constructed; ‘post hoc rationalisation’; we make sense of and formulate an explanation of our action afterwards. Also, language is at times perceived inadequate to describe what we *actually* do, and convey the knowledge of everyday practices that we are involved in. They therefore suggest using *dialogical tools* that can encourage respondents to make associations and reflect around the topic and elaborate the conversation (Joosse & Marshall, 2020). This inspired my set up of the focus group as an alternative solution because it was not feasible to conduct this study with a group in a private home. Instead, I provided dialogical tools in form of packaging waste, bins, and waste bags, to ‘simulate’ the practice of waste sorting through the materials that might occur in the participants households.

First, I used a Facebook post and registration form on Vafabmiljö’s own Facebook page to reach residents who are costumers of their waste management service. However, the Facebook post only generated two replies. Therefore, I asked team members from the communication unit of Vafabmiljö to help me reach out to their private contacts who were living within the area. Thereby I could invite five

residents by email along with brief information and suggestion of a date. Three accepted the invitation. Also, one of the registered through the form on Facebook accepted the invitation, which resulted in a total of four participants for the focus group. On the day of the interview, one participant got sick, so I organised a possibility for that individual to participate online through a video-link and make it a hybrid-session. It had an effect on the interview as the dialogical tools could not be used to provide an associative effect for the online-participant as it was difficult to see the materials properly and obviously not touch them. It also required more attention from me as the researcher to include that participant in the conversation, as conversations will not proceed as natural in a hybrid meeting, and it is easy to forget about the online-participant. The interview was documented through audio recording and written notes.

The first session addressed the participants' own waste sorting practices in their households, where they were encouraged to discuss among the groups participants and discuss freely, although respectfully, of each other's contributions. The session had a practical approach where the participants were encouraged to use the dialogical tools. The intention was to enable associations and provide easier demonstrations for participants to make sense of their practices in conversation. In the second session, I showed communicative materials as information letters, campaign posters, web- or social media posts as examples to discuss and reflect around. The focus of the interview was to discuss aspects of this communication material that were salient, relatable, confusing, or motivating regarding household waste sorting among the participants. Additionally, the discussions could provide an insight of how the participants related the provided informative material to their own practices, the differences, and similarities.

## 2.4 Data Analysis Procedure

### 2.4.1 Interviews with municipal representatives

The empirical data from the interviews with municipal representatives was analysed in accordance with Creswell and Creswell's (2018) suggestion of conducting an analysis of qualitative data. I aimed to first get an overview of the collected empirical data, thereafter, I organised the transcripts in separate OneNote documents to conduct the coding. I used an approach of *emerging codes* to keep an open mind of what aspects that were emphasised by the interviewees when talking about the communicative activities. I also used *priori codes*, derived from the literature review of waste management, waste plans and the municipalities websites. This process was repeated a few times for every document with

transcriptions, until relevant concepts no longer appeared. Thereafter, identified quotes were categorised under relevant themes, and lumped together under related descriptions making out concepts derived from Knickmeyer's (2019) definition of motivations. The result from the analytical process was interpreted using concepts of strategic communications, to identify what strategic approaches the municipal organisations used to affect residents' motivations to sort waste.

#### 2.4.2 Focus group with residents

The transcript from the focus group was also analysed using an *emerging* and *priori* coding approach. The emerging approach let the participants discussions, constitutive understandings and sense making of practices, be prevalent in the analysis in accordance with a constructivist- and social practices approach. My understanding of social practice theory also enabled me to make out priori practice-related codes. The material was colour coded as following the analysis of the other interviews, and thereafter organised into emerging themes. The analysis was based on literature describing social practice theory, to understand how the participants made sense their waste sorting practices.

### 2.5 My Role as a Researcher

My interest of the study is based on previous experiences in the field of waste management, both within academia and work experience. The interest is sprung out of my acknowledgement of a fundamental human-environment relationship in achieving sustainable practices, where I think the discourse of waste management is highly relevant.

The idea of this study is initiated by the municipal organisation Vafabmiljö, who in the beginning of the project described and emphasised their interests and hoped outcomes of the study. The departure point for the study was a requested identification of communicative activities and approaches that can motivate villa residents to sort packaging waste and adopt the organisation's provided waste collection system. The results are expected to be used to inform their future communications strategies when communicating with the villa residents in Vafabmiljö's operational area.

With this departure point distinguished, I find it important to establish that the research design and methodology, as well as the interpretation of the results was initiated by me as the researcher, in dialogue with my supervisor from SLU and supervisor from Vafabmiljö. With this declared, I thereby emphasise that I was *not* provided with a research design from Vafabmiljö to conduct this thesis. The

research has neither involved empirical material or participants from Vafabmiljö's organisation, whereby I will claim no bias of interest in the result.

However, the methodological choices I have made throughout the research process, for example the method of data collection, the selection of interview subjects, and research problem, has been in accordance with Vafabmiljö's expectations of the study. The study is overall conducted in accordance with my epistemological positioning in social construction, whereby the choices of research design, analytical methods, and interpretation of my empirical material are grounded.

## 2.6 Ethical considerations

Throughout the research process I worked according to the following ethical guidelines: to provide transparency about the aim of the research, who I am conducting it, my relation to Vafabmiljö and my interests in the study as a researcher. When contacting participants, I provided an easy description of the research and their role as participants in my study. At the time of the written agreement of their participation, all individuals were provided with the information of their right to withdraw from the participation in the research, along with how the data was intended to be handled and used for what purpose. At the time of the interview all interviewees were asked for their consent to document the interview through audio recording. Throughout the research I kept the interviewees' identities anonymous by using 'codes' when presenting the result, as their identity is not relevant to disclose for the essence of the study and ethical integrity reasons.

The choice of individuals to participate in the study has in the case of the municipal representatives been based on their professional experience and knowledge concerning communication and the new waste management system. The choices of municipal organisations were based on several factors disclosed above. It is important to emphasise that the analysis was not an evaluation of their communicative activities or strategies, but an identification of what they have done, put in relation to my theoretical framework and other empirical material.

The invitation of private villa residents was aimed to be a random sample within Vafabmiljö's customer base without requirement of prior knowledge about sorting or practice of waste sorting in the household. However, since the Facebook registration was not successful, I got the participants referred to me by Vafabmiljö employees. The requirement for their participation was that they are villa residents within Vafabmiljö's operational area and unfamiliar to me.

The focus group entailed several ethical considerations I had to keep in mind, since the participants were expected to share aspects of their private household members and routines, to me and the other participants. It was important for me to create a safe and relaxed session, where the participants felt comfortable sharing their experiences, thoughts, and practices. Thereby, I first provided sandwiches and introduced me and the research and emphasised that their contribution was of great value. The fact that I was an outsider of the Vafabmiljö organisation could have helped in making the participants less concerned with being perceived as ‘good citizens’ and sort their waste and be more honest in their descriptions of their sorting practices. They were all given cinema tickets as a thanks for their participation.



# Results

## 3.1 Analysis part 1: Communications strategy

In this section I use strategic communication theory in relation to the motivations to sort waste that I identified in the empirical material. The analysis highlights what implications the different communication strategies can have for motivations on waste sorting. Below I present in turn: *informative strategy, awareness creation, persuasive strategy, and facilitative strategy.*

### 3.1.1 Informative strategy

All the studied municipalities' communication at the time of initiation and introduction of a new waste collection system targeted, what Knickmeyer (2019) refer to, the *knowledge barriers* among the new users. To enhance the knowledge among the residents, the municipal organisation made efforts to learn about their customers' needs, inquiries, knowledge, and attitude towards a new waste system, to in turn know what needed to be communicated. For this, they used surveys, social media and physical events. The knowledge enhancing activities were aimed to provide the households with correct know-how about the new system, to motivate a decision to engage with the new way of sorting and disposing packaging waste. The interviewees highlighted two different types of activities, *pilot projects* and *personal interaction*, having positive outcomes when enhancing the knowledge for both the municipal organisation and residents.

The pilot projects were introduced in four of the selected municipalities and were generally conducted through the selection of one, or several representative areas, with villa households. The residents in the selected area were informed about the project through direct communication (email, letter) and invited to participate in the pilot and that the purpose was to try out the system and to get feedback. The information in the initiating stage concerned practical aspects of how the sorting system should be used, enhanced that "*now it gets easier to sort*", and explanatory information why they introduce the new system and the process.

According to reviewed literature on strategic communication (Tayson & Unson, 2006; Werder, 2014) these findings aims to influence motivations and achieve organisational goals. The first steps entail an educational focus of information and awareness about the issue, and thereafter a focus on motivational aspects as attitudes and behaviours (Tayson & Unson, 2006). What I identified as the initial motivational target for the municipal organisations, was the residents' knowledge barriers to adopt and use the new system, stressing that these described communicative activities were *informative*. According to Werder (2014), informative strategies are based on facts, aiming to create awareness about the subject of information, and assumes a rational and motivated audience (Werder, 2014). This objective was identified in all the municipal organisations' information by letters and emails. The informational activities focussed on describing the 'problems' and 'solutions', how the system and the recycling process works, and emphasising the environmental benefit of the residents' waste sorting. The residents were thereafter expected to draw rational conclusions of the information provided. This was manifested by the interviewees emphasising that the goal of the information was to make the residents choose to connect to the waste collection system and increase the sorting of packaging waste.

The informative strategy assumes that the individual will – because of their rationality - come to the intended decision with the provided information at hand. However, Tayson and Unson (2006) emphasise that environmentally related issues often generate much controversy, and the perception of what a rational action is, can vary depending on (subjective and emotional) entanglements of the individual (Tayson & Unson, 2006). This argument is also lifted by Ockwell et. al. (2009) meaning that social change, especially when it comes to environmental or climate issues, are difficult to achieve because “*people often do not act in accordance with that they know or feel.*” They emphasise that many communication approaches do not take into consideration meaningful aspects as values, emotions, and attitudes (Ockwell et. al. 2009, p. 310). Additionally, Steg and Vlek (2009) highlight that people tend to ignore information that is not aligning with their choices and habits, a selective attention to information, which will require a complementary contextual change to influence a reconsideration of the habits (Steg & Vlek, 2009).

The informative strategic message approach, used by the municipal organisations, can be understood as the rational choice of strategy for the communicators in their organisational context. However, as emphasised by Tayson and Unson (2006) and Ockwell et. al. (2009), are aspects that influence people's practices complex, and includes social values and norms. This imply that informational strategies are not effective on their own (Tayson & Unson, 2006; Ockwell et. al., 2009). However, in the studied municipal organisations have the interviewees described complementary awareness creating activities, which were experienced successful.

### 3.1.2 Awareness creation

Werder (2014) points out that the informative awareness creating strategies can be effective in the initial stages of a change process. This was echoed by the experiences of the municipal representatives, for example personal meetings with the residents in the studied municipal areas. Demonstrations and personal interactions to increase knowledge among participants, is stressed as key when addressing complex issues, and provides a possibility to influence the attitudes towards the changes of an intervention (Tayson & Unson, 2006). In the pilot studies and introduction of the new waste system, different awareness increasing activities were organised to meet the residents in person, so that the residents could interact with the organisational professionals on their own conditions. The interviewees described that the meetings out in the residential areas demonstrated the relevance of the system in that area, and the meetings at fairs encouraged residents to ask questions and discuss the system. For example, residents often asked about the space to keep the sorted packaging in the house and cost of the new service. The municipal representatives learned about the different attitudes towards sorting (“it is all mixed anyway”) and about the resistance towards the materials to conduct the sorting (large bins or plastic bags). One interviewee mentioned that the personal meetings and dialogues with critical residents often enabled a shift in their attitudes once they were shown the system and presented with the arguments for using it.

When describing the social events, all the interviewees mentioned that they demonstrated the waste bins that were provided with the system, and the waste trucks that facilitated the collection of the sorted waste. One interviewee mentioned they used a kitchen sink at a fair, to provide a visual understanding of the waste management system in a home environment. Another described that demonstrated waste bins caught the interest of politicians when lobbying for the system in the city hall. These material tools were described as successful in creating awareness of the event, the system, and the municipal organisation. It also enabled conversation, and provided understanding and interest among the residents, whereby interviewees described examples of the public’s interest to look inside the bins, take its measurements and see how the waste truck worked.

Indeed, the close relation to the residents, the users, is important for the strategic communication to be successful, which in the interviews is described to have been established through the social interactions in the pilot projects and personal meetings. Additionally, during the pilot project and the initial stages of the introduction to the new system, the collection of feedback and conducted customer evaluations were described to be more frequent. These communicative aspects are expected to increase the trust and acceptance in implementation of the waste system, and in the municipal organisation, and lead to a sense of participation and

‘environmental citizenship’ described by Ockwell et. al. (2009). It can also help preventing what Barr and Gilg (2006) otherwise highlight as a risk, namely that authority organisations’ implementations of an intervention in a society will not match the situated practices, norms, and contexts, if social factors are not researched and understood (Barr & Gilg, 2006). The feedback and experiences from the pilot projects were described by the interviewees to have provided the organisation with knowledge about the residents practical and social concerns around waste sorting, which contributed to inform the continuous communication. For example, it prepared the organisations’ customer service with answers to ‘frequently asked questions’, and enabled development of informational guides for sorting and placing of the waste bins, and informational webpages.

### 3.1.3 Persuasive Strategy

All the interviewees highlighted that the personal interactions were valuable as it provided an exchange of practical knowledge about the system; the households’ waste sorting, the recycling process and understanding about each other’s contextual implications regarding the waste management. The personal meetings described here can appeal to a meaningful engagement and provide an arena for discussion of values, emotions, and social norms. However, the organisational professionals also got the opportunity to emphasise the need for action among the residents, where the problems and solutions could be described. Werder (2014) refer such attributes to a *persuasive strategy*, use of non-value free language and often applied when the public does not recognise the issue or are motivated enough to act (Werder, 2014). Tyson and Unson (2006) describe the variables source credibility, quality of message and message discrepancy as essential for an effective persuasive strategy (Tayson & Unson, 2006). These aspects can be connected to the identified motivation of trust in the authoritative organisation as the sender of the message. The source credibility is according to the authors based on the audiences’ perceived expertise and trustworthiness of the sender, and the message quality- and discrepancy assumes a good understanding of the targeted audience interests and position towards a change (Tayson & Unson, 2006).

### 3.1.4 Facilitative Strategy

The strategic communication to target the motivations of knowledge barriers is also relating to a *facilitative strategy* described by Werder (2014). A facilitative strategy is enabling changes in practices by complementing information by providing the resources required for the change, especially when motivation to change is low (Werder, 2014). In the studied examples of communication activities by the municipal organisations, the facilitative strategy implied provision of new bins and sorting material, as well as sorting guides, digital tools (apps), and instructions. In combination with a persuasive strategy in social interaction, the facilitative strategy

can appeal to the motivation of perceived convenience. The perceived convenience is according to Knickmeyer (2019) influenced by both the cognitive understanding of the system, perceived benefit of time and cost, and access to the needed information and material to perform the expected change in a practice. Waste sorting has the potential of becoming a routinised habit but will require a long-term feasible practice (Knickmeyer, 2019).

All interviewed municipal organisations enhanced the convenience of the new sorting system, framed as *it will get easier* to sort packaging waste. By *easier*, the interviewees referred to attributes as a simple sorting system, and most important – the disposal is *close* to the household. They all emphasised in their communication that it will become more “*convenient for you*”, “*easier to do the right thing*”, “*closer to your home*”, “*better service*”, and “*environmental benefit*”. These “counter-arguments” were described by the interviewees to respond to frequently mentioned arguments by residents, such as lack of storage space at home, time consuming, and unwillingness to deal with sticky packaging and risk of bad smell. The emphasis on the convenience of the new system was thereby prominent in the initiation of the system when the municipal organisations wanted their residents to connect to the system. According to Werder (2014), does the persuasive strategy entail encouraging the audience to reallocate practices, resources and thereby behaviours from one practice to another that is established by the organisation, which was clearly the goal of the municipalities’ interventions. Thereby, it can be interpreted that the described communicative activities by the municipal organisations are attributes of both a facilitative *and* a persuasive strategy.

The persuasive strategy can also have an impact on the motivations influencing the attitudinal barriers, described by Knickmeyer (2019), and identified in the empirical material. These also relate to the convenience factors concerning residents’ perceived benefit of change in behaviour, in relation to the cost of it. Negative attitudes towards waste sorting were mentioned by all the interviewees referring to the residents’ arguments “*why should I sort, everything gets mixed anyway*”, “*everything goes to incineration anyway*”, “*it doesn’t matter what I do*” “*I don’t have space at home*”. These perceptions support the belief that the time spent on the practice will not matter and the environmental benefit will be lost, which creates a mistrusting attitude towards the sorting and collection system. One interviewee mentioned critique, mainly on social media, towards their use of plastic bags in their waste system, where the use of plastic was perceived incompatible with the environmental benefit of sorting. The interviewee stressed that they do not “own the discourse”, meaning the difficulty to promote the benefit of waste sorting when the topic is widely discussed online, and a plurality of assumptions influence the general perception of the waste sorting. It was emphasised that attitudes of people who have ‘made up their mind’ about how it works, are difficult to convince.

Thereby were mainly personal interactions used to address the misconceptions and ‘myths’, where a persuasive strategy with value- and emotionally inclined language, enhanced the reward of actions not clearly visible, i.e., environmental benefit of waste sorting. The mutual understanding of implications of an intervention is stressed in the reviewed literature (Kirkman & Voulvoulis, 2017; Tayson & Unson, 2006; Barr & Gilg, 2006; Ockwell et. al. 2009), where the interrelation between the public and the organisation is essential.

## 3.2 Analysis part 2: Social practice

In this section I use social practice theory to identify how the participants make sense of their everyday waste sorting and what factors constitutes the practices. The section is presenting the constitutive factors: *materials, contingency of knowledge and context, entangled practices, and reproduction of practices.*

### 3.3 Session 1

The participants described their household waste management mainly through three topics: first, the organisation of the sorting, collection and storing of packaging waste in the homes and the materials used and the routines it entails. Second through the ways of disposal and responsibility of the collected sorted waste. Third, through motivations to sort waste.

#### 3.3.1 Materials

The focus group was introduced by letting the participants describe their waste management routines in their households. What became evident early in the discussion was that the waste sorting practices were influenced by the physical storage spaces, the containers to collect packaging waste in, and the type of packaging waste generated.

Two participants describe that they have a pantry in the kitchen area, where they store the sorted packaging waste in simpler containers as plastic- or paper bags from grocery stores, and the other two have some storage space adjacent to the kitchen. They all also have space under the kitchen sink, which was mainly used to collect food waste, mixed residue, and smaller space for packaging waste. One participant disclosed that they also have a second storage in a shed in the garden, where packaging waste is stored and sorted in bigger bags to later be brought to a disposal site. These described materials can be interpreted enabling the particular practices in their households. The participants’ emphasis on the materials is an illustration of Nicolini’s (2012) argument that practices are constituted around the material world

that will structure and orient our activities, where we establish a co-existence for practices among materials and people (Nicolini, 2012).

Social practices are also routinised behaviours, depending on the constitution of materials- skills- and norms. However, a practice is requiring a stability for the practice to continue and be reproduced in a routinised way. Reckwitz (2002) mean that, when a material is a necessary element of a practice, *that* subject-object relation, will stabilise, reproduce, and orient that practice (Reckwitz, 2002). It can thereby be interpreted that the participants described a ‘stable material construction,’ where the sorting system and physical spaces are a ‘node’, that the other elements constituting their sorting practice are connected to.

### 3.3.2 Contingency of Knowledge and Context

The practice of the waste sorting is described by all the participants to mainly be connected to cooking or food consumption, which entails handling food packaging waste. One participant admits that food packaging that has contained meat or fish products, that are sticky and wet, at times ends up in the mixed residue instead of sorted for recycling. There is consensus among the participants that such packaging is difficult to rinse properly, and therefore, not always sorted for recycling to prevent smelling when lying around before being disposed. The participants were asked if they would do it differently if they had access to a sorting and disposal solution closer to their house and not needing to store it in the house. They were all positive to that idea and said they would probably even sort such packaging waste if they could dispose it directly. From this discussion, I would argue that the practice is *contextually contingent*. The waste materials’ situated qualities (e.g., wet), in combination with the organisation of the waste system, leading to discomfort, entailed that the practice of the sorting became compromised and changed.

Another example of a change in the routine due to context, is one participant describing the patience-demanding time-consuming activity to empty their big bags of collected packaging waste into the very small holes of the packaging container at the recycling central. The participant discloses that:

“I do it, but I know that my [partner] does not and instead throws it in the big container at the recycling central, but then it won’t be recycled in the same way (...) That’s the limit for the engagement, which is a shame, because then you have only done half the job.”

The disposal can be interpreted as compromised by the structure of the containers (materials) to make the disposal easy enough to make it motivated (mental) to take the time and effort, and the knowledge (skill) of how to deal with the waste properly. From this example, I interpret that the sorting practice also has a

contextual contingency on situated circumstances effecting the practices. It does not necessarily change the practice of sorting and disposal at core but diverging circumstances in one or several elements has implications on the practice. As emphasised by Shove (2012) can changes in the elements have effect for adjusting practices.

The contingency of knowledge, or *skill, know-how*, in combination with things (materials) and mental elements (Reckwitz, 2002; Shove, 2012) of the sorting practice, is discussed when the participants were asked if there are particular packaging that they find difficult to sort. The following discussion concerned factors as information about sorting on the packaging, the material qualities, and perception of the effort for the sorting, emphasised having implications on the sorting practice. The discussion led to that two participants became aware that they, even in the store when choosing a product, did so according to how easy it was perceived to be sorted, depending on their understanding of its material constitution (i.e., mixed paper and plastic material) and information on it. One participant was during the session holding a tortilla bread packing consisting of both paper and plastic material (provided as a dialogical tool) and declared that:

“If I was standing at ICA and was to choose between ICA’s tortilla bread, whose packaging is all in plastic, even if this one is environmentally better because it is more paper in it, I would choose the other one [ICA’s] because that is easier to sort. Then I become lazy!”

Another participant agrees and says that the packaging producers must make it easier for the consumers and become better at clarifying how the packaging should be sorted. The discussion is manifesting how the different elements are interconnected and thereby constitute a particular practice, but also how the contextual circumstances can affect the practice. In this example, the material of the packaging is important along with the individual’s knowledge of how to handle that material, and also the value of the effort to ‘deal with it’ (sort it) in the correct way. This example also suggests how different practices, such as waste sorting, is connected to other practices e.g., shopping, which will be further discussed below.

### 3.3.3 Entangled practices

The disposal of the collected packaging waste was described by the participants as routinised. By talking about their practices around the disposal, they implicitly described how it related to other practices, where some were not waste-related, as for example food shopping or taking a walk. One participant mentioned that the disposal of the packaging waste sometimes was a part of an evening stroll, which the participant emphasised as valuable to the household and wanted to continue with, although getting a new waste disposal system. The described routine and



context for the practice of disposing the waste, can be understood as entangled with other practices and social values. It can be interpreted as the participant cannot take that evening stroll if not bringing packaging waste along. This is an interesting insight that highlights the embeddedness of waste related practices in everyday life and other practices they are related to, which in a sense constitute each other. Hargreaves (2011) points out the relevance of considering ‘bundles of practices’, as social practices are building on, being developed, and sustained by other aspects and practices of social life (Hargreaves, 2011).

The participant’s described disposal practice can be interpreted to have a positive association and an interrelation to other everyday practices. However, the stressed undesired change of that practice, is highlighting the challenge to change practices when they are interrelated with other social practices and values or reified to convenient routines. Westberg and Waldenström’s (2016) emphasise the challenge of changing practices that are *reified*, a fixed routine and perceived knowledge of doing. In this example can the practice be considered pro-environmental, however, it is interesting to reflect, in relation to the interpretation above, if the participant has considered how it would feel to do one practice without the other – to change the routine? Hargreaves (2011) emphasises that practitioners need to become aware of their practices, in order to change them. Also, Westberg and Waldenström’s mean that changing practices require a *prominent* change in the structure of the practices, as for example change in the physical and material structure, for affecting change in behaviours and thereby practices. Put in relation to the participants’ expressed resistance to change practice with the new system, suggests that the social values connected to the practice should be considered as well.

### 3.3.4 Reproduction of practices

The social relations that sustain, stabilise, and reproduce practices (Hargreaves, 2011; Westberg & Waldenström, 2016), can be identified in the discussion of the responsibility and involvement in the waste management practices in the participants’ households. Westberg and Waldenström (2016) discuss participation as individuals constituting a practice and, as Reckwitz (2002) describe, becomes carriers of that practice. In the contexts of the participants’ households, the participation of the children was addressed as a means for, implicitly, ‘reproduce’ waste sorting and disposal practices. One participant described an ongoing negotiation of the sorting practice with the teenage son, who was described as least participating in their sorting, but was thereby constantly reminded by the participant how to do it properly. Another participant described teaching the grandchildren how to sort waste when visiting, and one participant mentioned they tried to bring the children along when disposing packaging waste to teach and give them the routine of the disposal. The participants also referred to their own experiences of

upbringing when discussing motivations to sort waste, and acknowledged it had an impact on their practices and willingness to pass it on. Again, this manifests how sorting practices are established and functioning according to the social context, everyday routines, and upbringing of a household, and gets reproduced by the carriers of the practice. It also emphasises Westberg and Waldenström's (2016) description of reproduction of knowledge of a practice within a physical and social setting, which establishes a context the practice relies on (Westberg & Waldenström, 2016).

## 3.4 Session 2

In the second session, the participants were shown different examples of communicative materials as information letters about a waste collection system, sorting guides, webpages, and social media posts from different municipal organisations. They were asked how they perceived the information, visual impressions, and relatability to the content, and it was evident that the participants interpreted the material with a departure point in their own waste sorting practices. The main topic that the participants returned to was relatability to information and images. The analysis will be done in relation to their previous discussion of their waste management practices, to understand how they relate to the communication material.

### 3.4.1 Relatability in communication

When discussing the structuring and content of the informative material, the participants made sense of the information based on their experiences of receiving such information and their own waste management practices. They stressed that the information about waste management needs to be relatable to the context it concerns, for example the villa households, using a simple language and concise messages that early presents the most relevant information. The 'most relevant information' can be interpreted as the defined problem and solution in the informative message, where more detailed descriptions of the waste system were less interesting to the participants.

The use of images and illustrations was emphasised as important to understand informative messages and make the information more *relatable*. Images that the participants meant were good, were those they could relate to, for example a picture of a common under-the-sink home sorting solution as it may occur in many homes, which caught the interest of the participants. Critique was on that note held towards one image they argued not relatable: a stock photo of a smiling woman holding a clean box of clean plastic packaging. One participant commented "*it is not that*

*glamorous. You should be honest!*” and referred to the previous session where all the participants had described their home sorting, meaning that they all used simple materials of plastic- and paper bags. Thereby, they emphasised that it is important to represent the encouraged practice in an honest way for it to be relatable, which I interpret gives the sorting materials in the image a *symbolic* common value. Practice theory recognises materials as ‘always-already-interpreted’, (which I interpret as ‘symbols’) used to constitute elements forming a practice (Reckwitz, 2002). What is manifested here, is that the material representation is providing a relatability between the information and the participants’ own waste sorting practices, which thereby can be assumed guiding in understanding the information.

The participants made sense of the information provided in the presented material through their own practices. For example, the participants realised through discussion among them that the described new waste collection system was entailing a similar practice to what they already did and could thereby understand the function of it. Another example is when they were presented with a social media post informing how to sort a particular material, one participant described its interpretation of the information through the sorting practice that was perceived rational by them. The discussion concerning this sorting practice also made another participant realise that her disposal of plastic packaging was not correct and had to be changed. The examples hint how the practices we are involved in shape our understanding of information, which is relevant to consider when constructing communicative material. On this note, the stressed relevance of relatability to practices, can be explained by what Hargreaves (2011) refers to as “*other mundane aspects of daily practice such as normally unquestioned skills and stuff*” which often are overlooked in interventions for behaviour change. Hargreaves posits that the conventional focus on targeting barriers for pro-environmental behaviours is a too narrow focus, and that an understanding of the contextual everyday practices is key for motivating change in practices (Hargreaves, 2011, p. 89).

## Discussion

After the analysis of the interviews with organisational representatives, I understand *social interaction*, such as personal meetings and reciprocal communication, to be the key link between the organisation and residents for changing sorting practices. The most relevant take away from the analysis of the focus group with residents is the need to understand how waste sorting practices are constituted by the material tools and environments, knowledge and motivations. Also, it is important to acknowledge contextual factors, who the participants in the practice are, and how the practice is reproduced in that social setting.

After analysing the two parts separately, I will now bring the results into a discussion to make sense of how the findings complement each other, with help from literature on organisational strategic communication- and participation. Through the discussion I intend to gain a broader perspective on what my studies of strategic communication and social practices can provide for the understanding of changing practices.

### 4.1.1 Information – One-Way ‘Communication’ top-down

By looking at the strategic communication approaches identified through the analysis, a part of the overall municipal organisations’ strategies has been informative. In the reviewed literature (Werder, 2014; Ockwell et. al. 2009; Steg, C. Vlek, 2009; Van Ruler, 2018) an informative approach, a one-way ‘communicative’ action, is described to address factual knowledge barriers and create awareness. However, information is argued to have a limited ability to influence change in behaviours (Steg, C. Vlek, 2009). Van Ruler (2018) describes information as a form of transferring a message, and when it has reached the receiver, it has accomplished its purpose. Through this understanding, it can be assumed that the sender expects a rational response to a message with a predefined perception of a situation, which thereby is expected to be shared by the receiver the sender (Van Ruler, 2018). For example, Kirkman and Voulvoulis (2017) stress that information about waste management systems entail technically attributed language, however, that can make understanding or decision making difficult for residents (Kirkman & Voulvoulis, 2017). Thereby, an informative message that seems rational from the point of view of the organisation, might not be rational for

the resident, and is argued leading to shortcomings in engaging the receivers of a message to act.

However, the work of Van Ruler (2018) posits that strategic communication should not only be a means for organisations to meet their goals, i.e., to continuously *present, promote, and operationalise*, but also reflect, formulate, and reformulate strategy (Van Ruler, 2018). I interpret this as ways of informing communication and strategies, through different forms of interaction with the society; to participate in forums where residents engage to negotiate knowledge, norms and meaning relevant to that community. This also entails that the organisation must be open and receptive for continuously rebuilding the strategic approach to match the understandings and meanings in the social context. I will argue that the ‘risk of shortcomings’ by using unanchored information, was (implicitly) acknowledged by the municipal organisations. They thereby worked to collect feedback and understandings of the residents’ concerns at the initial stages of the introduction of the waste system, through surveys and pilot projects and physical meetings, to have a dynamic approach in their communications strategy.

#### 4.1.2 Social Interaction – Two-Way Communication

The personal and interactive events of the pilot projects and fairs were described by the interviewees as successful events. This gives an emphasis to the value of social interaction when it comes to understanding practices and targeting them through communication. It confirms what Van Ruler (2018) and other scholars of strategic communication (Tayson & Unson, 2006; Werder, 2014) argue, namely that communication is naturally an interactive practice, which stipulates a two-way interaction where meanings are shared, co-created, and negotiated (Van Ruler, 2018). However, communication does not only need to be understood as interaction between individuals in conversation. Van Ruler (2018) suggests *deconstruction* and *reconstruction* – in my understanding ‘negotiation’ – of interpretations in a societal context, where for example organisational work is placed within interaction, with and for social action. This understanding focuses on the creation of *meaning*, where the organisation takes part in the negotiation of meaning-construction in society (Van Ruler, 2018). Examples from my empirical study have indicated that the approach of pilot projects became arenas for negotiation, co-creation of meaning and understanding of household waste sorting. This also informed their persuasive strategy to understand what values to address in the communication. According to the interviewees, the negotiation of interpretations of meanings of the waste sorting- and collection system lead to a better adapted communication by the municipal organisation.

### 4.1.3 Participation for changing practices

I have so far discussed the perception of the municipal organisations' perspective of their communicative approaches to engage residents, however, turning to research where participation is discussed, a nuanced perspective can be addressed. Participation is described as central to situated learning and development of practices, as individuals adapt and develop norms, values, and knowledge in accordance with its community (Westberg and Waldenström, 2016), or - as learnt from the focus group - the household. Through participating in activities, establishing relationships and negotiating meanings, the community identities and practices are constituted (Handley et al. 2006). This is one relevant take away from understanding social practices for communicative activities. It can thereby be emphasised as an important aspect in community development, as participation provides an actor (i.e., residents) perspective. Involving community residents to participate in planning and development, through engagement of local knowledge (their households), can thereby provide an ownership and space for negotiation of their practices (Steg, C. Vlek, 2009). Kirkman and Voulvoulis (2017) mean that participation is *“an empowering process for people to handle challenges and influence decisions that will impact their lives.”* This is argued to enable and sustain a more long-term change and adoption of new interventions (Kirkman & Voulvoulis, 2017, p. 646; Steg, C. Vlek, 2009). Inclusivity and participation in community activities and contribution of establishing and constituting norms, may also lead to more trust in the social community and more engagement in its practices (Joose & Westin, 2022; Knickmeyer, 2019).

From the result of my study, it can be discussed whether the residents were involved in a participatory process, as they were left out of processes as decision making, and joint problem definition. However, the residents that were selected and accepted involvement in the pilot projects, had reciprocal interaction with the municipal organisation where feedback and concerns were acknowledged and addressed. The municipal representatives described experiences from the events as positive and interactive, and that it helped to engage residents to have a positive perception of the new system and thereby connect to it. However, to get a nuanced understanding of the participation in the introduction, the residents' experience needs to be researched further.

### 4.1.4 Material contingency – dialogical tools

Another aspect that was described by the interviewees as successful for the physical interactive meetings, was the function of including the materials related to the new waste system, e.g., new waste bins and waste trucks. This was described to engage more interaction (read negotiated and co-created understandings) between residents and the municipal organisation at the meetings. I would argue that my study can

provide some insights to why these aspects resulted in positive exchanges between the organisation and residents, by considering the *material contingency* of a (waste)practice, emphasised in the focus group with a social practice approach.

For parts of my empirical data collection, I utilised *dialogical tools*, described by Joosse and Marshall (2020) which is assumed to help us in a conversational situation to associate and thereby better be able to describe or talk about a practice, which otherwise can be challenging to acknowledge (Joosse & Marshall, 2020). The demonstration of the waste bins and trucks can thereby be interpreted functioned as dialogical tools, manifested by that it encouraged discussion and understandings of the waste system among residents, politicians, and municipal organisations. This is related to social practice studies, where dialogical tools are suggested to be useful, along with the notion that development of practices are related to the environment in which they occur (Westberg and Waldenström, 2016).

Practices are also developed and reproduced by the people participating in that practice ('carriers'), whereby practices are co-constructed and negotiated in the context of the elements it is contingent on, there among materials (Reckwitz, 2002). This suggests that participating in a discussion where the relevant material for the practice is present, can help negotiate the meanings and understanding of that practice. This was also exemplified in my focus group where the participants used the packaging waste to relate their own waste practices and acknowledge the ones they had in common. When discussing the informational letters, the images that were most relatable, according to representativeness of people and waste-related materials, were the ones emphasised as understandable. The provision of sorting materials (waste bins etc.) can thereby be argued a fruitful part of the municipal organisations strategy to manifest the relevance of the system and complement to the understandings of it, and thereby utilisation by residents.

However, by returning to Van Ruler's (2018) understanding that organisations should participate in the construction and reconstructions of meanings as part of society - how flexible and open for reconstruction of meanings in interaction can this allow organisations to be? Can the materials (as 'symbols') instead create a rigid frame for understanding of how waste management practices should be structured in the private homes? Especially since there lacks studies of how it will implicate the households' situated practices, emphasised in Lind and Salomonsson's (2019) study that understanding of households' practices *before* an intervention, make it difficult to know exactly what the implications the new intervention had. For example, it was stressed in the focus group that waste sorting practices are related to, and sometimes contingent on, other practices and social values. These aspects are hardly acknowledged, in accordance with what I

emphasised earlier, that the residents' definition of the problem or alternative suggestions for solutions of implementation of the system, fit for a social- and community context, is not well studied.

Also, a risk of imposing a fixed system according to Ockwell et. al. (2009) is that intrinsic motivations and incentives (norms, values, social- or environmental concern) to change are lowered, as the provision of the material system mainly appeals to the extrinsic motivations (Ockwell et. al., 2009). Can the pre-decided physical system cement certain ways of practicing and thereby risk creating a reified practice of household waste management with little space for considering other values and inhibit new practices, for example waste reduction, to develop? On the one hand, from this perspective, it can be argued that provision of a pre-constructed system creates a potential 'lock-in' by the material system. On the other hand, waste sorting for many people does not just 'happen' without the right 'tools'. Additionally, Steg and Vlek, (2009) and Westberg and Waldenström's (2016) emphasise that changes in practices require a physical change in the environment to make the needed changes in the practice more prominent. Thereby, the provided waste collection system can help to facilitate the waste sorting practices. However, it can be argued that a complement to the extrinsic motivations mentioned above, according to Ockwell et. al. (2009) and other mentioned scholars, should be considered and addressed through social interaction and participation. This is aimed to highlight the benefits of the practice, targeting the desired actions using reciprocal communication, and providing a sense of 'ownership' of the intervention by enabling participation in the decision making (Ockwell et. al., 2009).

In a final turn of the discussion, I will highlight that, despite an argued lack of participatory process, it seems like the municipal organisations have identified a motivational aspect to encourage the residents to adopt the waste system, namely the perceived *convenience*. I have identified this motivational target in the persuasive strategic messages used by the municipal organisations in form of "*it will become more easy; convenient; time saving, and flexible for you to sort waste*" [when using this system]. The convenience is also sensed in the focus group, manifested by the description of handling of wet packaging or time-consuming disposal. What becomes clear is that social values, which I interpret as convenience, can interfere with the regular waste sorting practice, even for those who have well-established sorting practices. This supports my interpretation that the social aspect of convenience is a strong motivation to waste sorting practices and can confirm the focus on that in the municipal organisations' communicative messages. From this point of view a provided and facilitated waste system can be necessary, and maybe even preferred by the residents.



## Conclusions

In this thesis project, I set out to find out *how other municipalities have gone about to communicate regarding the implementation of a new waste collection system* by studying their communicative activities to identify what communications strategies were used. Thereafter I wanted to understand *how the identified communication strategies relate to the residents' sense making of waste sorting practices* by conducting a focus group where residents' waste sorting practices were studied with a social practice approach. Finally, I intend to make sense of the findings to conclude *in what way understandings of waste sorting practices can inform a communications strategy to increase sorting of packaging waste in households*. These three objectives are aimed to contribute to inform future communication strategies and concepts used by the municipal organisation Vafabmiljö. It also aims to contribute to academic understanding of what studies of everyday social- and environmental practices can bring to the table to facilitate a change process. The findings relating to the objectives will be addressed in order in this concluding section.

### 1.

At the initial stages of the introduction of the system, the municipal organisations focussed on information and awareness creating regarding the new waste collection system and collected information and feedback from the residents. The most valuable communicative activity for both the municipal organisations and the residents, were *social interactions*, that enabled understanding the residents' questions and challenges regarding the sorting, prior to the introduction of the waste system. Another positive outcome was that it enabled a relationship, and an arena where values, norms and knowledge were discussed. Thereby, the social interaction, in combination with demonstrating the waste bins and trucks at the physical events, increased understanding- and interest for the system among the residents. Through the interaction with residents, the key message of conveying convenience was identified. The provision of the waste bins- and/or bags enhanced their perceived convenience, which facilitated a willingness among the residents to adopt the system and sort more packaging waste. According to my interpretation of the communication activities could a 'sense of participation' be established through the social interaction between the residents and organisation professionals.

## 2.

The identified communications strategies are *informative/awareness creating*, *persuasive* and *facilitative*. The waste sorting practices were studied in the focus group, and the participants descriptions and sense making of their practices is the foundation to answer this research question. The participants made sense of informative messages, *informative strategy*, in relation to their own waste practices, by relating to the items and situations in the images. The information and images also created an *awareness* among the participants through the ability to relate to the message. The convenience factor was by the municipal organisations approached with a *persuasive strategy*. The persuasive approach emphasised the solution, in this case the waste system, to barriers of effort and space to sort waste. Being provided with the system had a positive response among the participants, assuming it would make them sort waste they usually throw in the mixed residue.

As exemplified in the focus group, practices are routinised, situated and maintained through the participants in the practices. Changes in practices are thereby challenging to influence only by cognitive persuasive approaches, targeting elements of meanings or knowledge. It often requires a change in the physical environment that inevitably influence the other elements and enable new routines. The provision of the new waste system can constitute that change in the physical environment, aligned with a *facilitative strategy*. However, an interesting acknowledgement is that the participants in the focus group did sort their waste, and were motivated to do so, and did not need to be convinced of changed waste sorting practices. Still, they were interested in accessing the new door-to-door system, as they perceived it would be more convenient and improve their sorting.

## 3.

The understanding of waste sorting practices can inform a communications strategy to increase sorting of packaging waste in households by acknowledging the everyday aspects of the practices. Examples drawn from the focus group are knowing how to sort what type of packaging material, bringing the collected waste along when running other errands, or teaching the children how to sort. That waste sorting is a mundane routinised practice, makes it difficult to identify what is required to change it, if not considered from the situated practice itself. Moreover, social practices are *social*, and it is therefore relevant to understand how that shapes practices. For example, the participants described how they try to engage and teach the children the sorting and disposal practices, and how responsibilities for different parts of the waste management are delegated in the household. This suggests that communicative activities should target the household holistically as a unit, where all the participants need to be engaged in the changed sorting practices.

Social practice scholars describe that practices are constituted and maintained by the elements they are contingent on. Therefore, it is valuable to pursue empirical studies of social practices to identify the elements: know-how of sorting, meanings of the sorting in relation other values as convenience and having the materials for the practice, that needs to be influenced for change. Indeed, empirical social practice studies are not a feasible method in a whole society, and smaller research samples are not generic over a population, because of the social and situated nature of practices. However, conducting a few empirical social practice studies can provide insights to the constitution of practices; the dynamics between its practitioners and material world, which can provide an understanding of dynamics in similar settings (Feldman & Orlikowski, 2011).

To enable the study of waste sorting practice, I developed an alternative method of studying social practices in a focus group using *dialogical tools* in form of packaging waste, to “simulate” or make parallels to a sorting practice. The representative tools enabled associations, more or less consciously, to the participants own practices, where discussions had a departure point in the provided packaging waste they saw or could touch. Also, the focus group set-up resulted in further discussions among the participants, listening to each other’s descriptions of their practices, entailed new associations and acknowledgements of their differences and similarities in practices. From this I conclude that studies of “simulated” social practices are favourable to conduct in a social setting as a focus group, as knowledge and practices are in nature constituted in interaction with others. This puts yet another emphasis on the value of social interaction in a communication strategy, to understand social values, relationships and practices in a community and thereby establish as well anchored communicative relation to the audience.

## 5.1 A surprising insight: Lacking environment in environmental communication

What came to surprise me during the analysis and writing of this thesis is that the *environment* played a little role in the environmental communication related to waste sorting practices. On the one hand, the absence of environmental perspectives can be related to the type of questions asked by me as a researcher, as the questions did not have a clear environmental focus. On the other hand, it can be argued that the study reflects the narrative of the communication concerning the waste management, as it is presented from the municipal organisations. It can be interpreted that from their point of view, as a municipal organisation providing waste services, the waste management is a *social service* and focusing on making people act according to regulations using practical know-how and materials. What implication will a decoupling of social behaviours, norms and values, and the environmental values, concerning a practice impacting the environmental resources have in the discourse? What affect will a disconnected view of social practices affecting environmental health, along with a fixed system for waste management, have on making us question the waste we generate, as it becomes easier to sort and dispose it? What affect will unquestioned practices and uncritical thinking about our resource usage have for taking steps further up in the waste hierarchy where we are supposed to *reduce* waste for an environmental cause? Bringing in the environmental aspects, addressing the packaging materials as resources, might provide a bedrock for making changes in how we view, buy and use materials – sort and recycle – to eventually – reusing, refusing and reducing.

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## Popular science summary

Everything will get mixed and burnt anyway!

*I do not have the space, or the time. It is also sticky and smelly, so I do not want to deal with that. In the end, everything will get mixed and burnt anyway, so it does not matter what I do!*

Well, the excuses for not sorting out packaging waste for recycling are many. Despite having systems for collection of packaging waste and recycling processes in place, we still do not reach the EU goals for recycling of packaging waste. What are the solutions to improve this? One solution has been to give the municipalities in Sweden the responsibility to, through curbside waste bins, provide the collection of packaging waste from private households. However, is giving people a waste bin enough to change their everyday routines of not sorting properly? Would that motivate them to make an effort for this rather boring, time- and space consuming practice? For what? The environment!?

By now, I think you can tell what my position in this question is - no, I do not think it will be enough to just provide a bin. We also need to *communicate* for change to happen, and how that is done in the best way, is what my research set out to find out.

In order for me to provide an outline of a communication strategy, useful for municipalities introducing the new waste collection system, I first interviewed communicators in those municipalities who are forerunners of the implementation. I used a theoretical lens of *Strategic communication* to identify how they seem to have planned their communication, for the best response from their residents. I thereafter turned to the residents using a focus group to, through an approach of *social practice theory*, learn about their households' everyday sorting routines.

So, what did I learn?

From the municipalities I learned that communication is really about social meetings. Information can create awareness but will hardly make you change your routines. Instead, the municipalities learned about their residents' concerns; that

they will not fit with more sorting containers in the kitchen. Their attitudes that their sorting will not matter because it gets mixed anyway, and values, that it is taking lot of effort to dispose it. Acknowledging this enabled a more socially considerate communication. Enabling the interaction, and also demonstrating the new waste bins and waste trucks, created understanding and interest for the waste collection and recycling process among residents, which increased the engagement to use the system to sort more waste.

The focus group illustrated that routines for sorting is learnt by the people in the household, for example, children will be taught in what bin to put what packaging waste, or the partner knows that it is time for disposal when the waste bag is placed by the front door. The routines are established to work among those members in their local context, of for example their household, which makes the routines challenging to change by only targeting know-how and meanings as social norms or motivations.

Thereby, I can present an interesting finding, although not so surprising, namely that we are very convenient when it comes to waste sorting. The easiest, closest, and simplest solution is the one most people go for. And in that case, believe it or not, providing the waste bins and bags actually facilitated new waste sorting practices for the residents! The bins, along with communicative efforts from the municipality, made them realise they can have time for the sorting, and they do not need much space indoors to sort waste, because the disposal is right outside the house. The importance of the materials was echoed in the focus group, where their described household sorting routine clearly was structured around the materials used for the sorting. For example, by having certain types of colour coded bags made the sorting easier, or a large storage space resulted in fewer trips to a disposal site. For people who does not have this organisation of waste sorting today, the bin can provide that solution.

By basing the communications strategy on these factors, I expect that residents can be engaged in the implementation process. It would provide a socially anchored communication that can motivate adoption of the new system and change waste sorting practices. In the conclusion, I also come to a surprising insight, which is that environmental perspectives are largely absent in both the interview and the focus group study. What implications a decoupling between human-environmental relations in the sustainable waste management discourse can have, can be a subject for future research in environmental communication.

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