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To Good To Go and Sustainable Behavior Change:

An Exploration of the Smartphone Application through Social Practice Theory

Master's Thesis (M.A.)

Culture, Communication and Globalization

(Consumption and Market Communication)

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Preface

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Abstract

This master's thesis explores the smartphone application To Good To Go through a cultural and consumption-based lens with an emphasis on sustainable behavior change. To Good To Go is being used, to purchase leftover food from restaurants, cafés, and stores for a cheaper price, which marks the usage as a sustainable practice in the fight against food waste. In this study, social practice theory is being applied to the application, in order to identify an encouragement of sustainable food consumption patterns in the users. This has been done through the conduction of semi-structured online interviews, in which the participants shared their individual experiences in regard of the usage of To Good To Go and their personal food consumption habits. The theoretical approaches, used in this project, are Warde's (2005) theory on consumption and social practice and Hargreaves' (2011) work on pro-environmental behavior change. These approaches suggest, that through repeated performances of a practice, habits are being developed. Furthermore, unsustainable behavior patterns need to be challenged and broken consciously, in order to replace them with more sustainable behavior patterns. This happens as soon as the sustainable practice is being turned into a habit through routinized performances. Within the interviews, the participants discussed their personal user behavior in terms of, encouragements and limitations of the practice, associations and meanings, user activity, emotions and rewards, food waste behavior and the difference of using the app of going to the supermarket. The participants were divided by user activity into occasional users and committed users, whereas the occasional ones showed no The findings suggest, that even though all participants recognized the usage of the application as a sustainable practice, an impact on the personal food waste behavior within the private household could only be detected in two out of eleven participants. Knowledge and information, as well as a general interest in sustainable practices and the food waste issue need to be preset in the participant, in order to develop a routinized behavior, that could ultimately turn into a habit. The two committed users incorporated the usage of To Good To Go to some aspects in their everyday shopping routines. Overall, it could be seen that, even the participant claimed to use for saving food waste, the practice reflected their personal current life-situations, since it has been connected with the aspect of saving money as a student.

Furthermore, the participant's user is behavior not only highly influenced by emotion and a physical or mental reward but also factors, such as occupation and time, the aspect of planning, when picking up the food, cultural and societal food consumption habits, as well as choice and selection. This means, that even though the participation in the application, as a sustainable practice, showed a change of behavior in the short term, it is not ensured, that this impact will last, if the life-situation changes. Furthermore, an active breaking of cultural habits, in order to exchange these with more sustainable ones, poses as a challenge, since they are deeply enrooted within the individual's behavior.

"Human behavior flows from three main sources: desire, emotion, and knowledge"

- Plato –

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1. Research Identification

The first chapter of this research project provides a general introduction to the topic of sustainable food consumption and behavior change, as well as the smartphone application To Good To Go. In addition, the problem formulation and research question will be presented. Furthermore, the current state of art is being explored in the literature review, which leads over to the theory section of this study. After the main theories have been explained, the methodology introduces the epistemological and ontological standpoints, followed by a detailed explanation on how the data is being conducted. At the end of methodological chapter, the limitations and challenges are being discussed, followed by the analysis of the collected data, it's discussion and the final conclusion of this study.

1.1 Background: Sustainable Food Consumption, Behavior Change and the Application To Good To Go

Sustainable consumption is a term, which has become increasingly important in the last couple of years. It defines a consumption pattern, which ensures the fulfillment of the basic needs and a good life quality to all human beings living on this planet (Isenhour, 2015, p 134). The word *sustainability* itself can be attached to many different things and actions but its literal meaning incorporates *"(…) the capacity to support, maintain or endure (…)"* (Kopnina, et al., 2015, p. 3), which can be both applied to a process and a goal (Kopnina, et al., 2015, p. 3).

The Oxford Dictionary defines the word *sustainability* by the following definitions:

"the use of natural products and energy in a way that does not harm the environment" (Sustainability, 2019), as well as *"the ability to continue or be continued for a long time"* (Sustainability, 2019). Sustainable consumption, therefore, does not only refer to consumption patterns, which ensure a good life quality to all upcoming generations. It also stands for a way of human consumption, which prevents the destruction of the Earths' ecosystem and species through pollution, the emission of toxic gasses and the general reduction of the planets' natural resources to a point, where they cannot be regenerated (Isenhour, 2015, p. 134).

The early 1970's can be market as the starting point for debates about sustainable consumption, which has been a great instigator for environmental activism and the change of public policies ever since (Holt et al., 2012, p. 236). During the Rio Summit of the United Nations Conference on Environment and Development in the year of 1992, the main chapter was devoted to the challenges of sustainable consumption (Banbury et al., 2012, p. 497). It introduced new concepts of wealth and success to the world, such as a "(…) *higher standards of living through changed lifestyles that are less dependent on the earth finite resources and more in harmony with the Earth's carrying capacity"* (Banbury et al., 2012, p. 497).

The human race is currently consuming more natural resources than ever before. From the year of 1970, the utilization increased from 27 billion tons up to 97.1 billion tons in 2017. According to estimations, the extraction of basic commodities could reach up to 190 billion tons by the year of 2060 globally, when no united policy measured are put into action urgently (UN, 2019). The constant increase in consumption results in pollution through toxic material and an increase in global warming. Not only could that destroy the natural ecosystems of this planet and lead to the extinction of various animal species, (Bendor, 2018, p. 48 – 49), it also creates a constantly widening gap between the rich and the poor (UNEP, 2019).

The industrial revolution marks the starting point of the negative effect, which are caused by the way humans consume and produce. Since then, the amount of different greenhouse gases in the atmosphere has been higher than ever before. Overall, the average global temperature has been increased by almost 1°C. A rise to 1,5°C could have catastrophic consequences for all life on the planet, according to the predictions of scientists (WWF, 2019). The future and well-being of all human beings and this planet is dependent on the choices we make today, in order to not overconsume the available resources (Morone et al., 2017, p. 5). To shape a tomorrow, which gives everybody an equal opportunity to enjoy life, without destroying the earth capacities for further generations, requires further actions (McDonagh, et al., 2014). These actions include large-scale changes across all sectors of society within every aspect of the daily life (Hargreaves, 2011, p. 80).

Food consumption is one of these sectors. When it comes to the connection of food and sustainability, one of the most critical choices made by the consumer, is the decision of what to eat. The current trend does not only show an increase in the consumption of foods which are more processed and packaged, it also depicts a consumer habit, whereas more food is being purchased, than needed (Baldwin, 2015, p. 190). According to the Food and Agriculture Organization (FAO), around 1,3 billion tons of food is being wasted each year on a global scale, whereas in order to meet the demands of a growing world population, the food production must increase by 60 % (FAO, 2011). Globally, more than 60 percent of food is wasted by the consumer (Bugge et al, 2018, p. 2). Moreover, in the year of 2017 around 247 000 tons of household food waste could have been avoided (OECD, 2019) through proper food handling on a global level.

One way to tackle the issue of food waste has been the invention of smartphone applications, which appear more often around the globe. These food waste reduction apps operate as digital platforms since they connect the supply and demand side by redirecting surplus food from food services and restaurants to people in need. Many of these apps optimize the transaction between the supplier and consumer, where they offer real time information on the food availability, food pick-up times and often include discounts for the purchase (de Almeida Oroski, 2020, p. 367). Especially the application To Good To Go is becoming increasingly popular. Through the platform, leftover food from local food suppliers such as bakeries, restaurants and grocery stores can be purchased as *"magic bags"* (togoodtogo, 2019) for a discounted price. The user gets a notification through the app, which include food offers from places, close to the current location and the pick-up time (Piri et al., 2019., p.112). To Good To Go can be downloaded from the Appstore to the smartphone and is available in several different languages (togoodtogo, 2019).

1.2 Research Motivation

But does the usage of To Good To Go actually help in the global fight against food waste by creating a more sustainable behavior in regards of food consumption?

This question motivated me to explore the application and it's usage, in order to discover not only the reasons and meanings behind the usage but furthermore, if the engagement in To Good To Go actually has an impact on the user's relationship with food.

After all, the application informs about the sales of food leftovers from bakeries, stores, and other food distributors for a cheaper price. One could argue that the mere usage of To Good To Go already leads to a more sustainable consumption behavior. Food waste, which could normally occur as a result of over purchasing by cause of poor shopping and meal planning or inadequate storage of leftovers is being prevented because through the application, since the food items are either pre-portioned through the magic bags.

But why do people use the application and does the mere usage could change the behavior of a person towards less food waste?

Sustainability and behavior change has been targeted by many scholars over the past decades and the biggest challenge is the question, whether a change in behavioral patterns can be implemented within society through individual change or collective transformation of the entire belief-system (Hargreaves, 2011, p. 80). Social practice theory plays a key role in the exploration of change in behavior within a society and will also be of great usage within this specific research project. The world today is full of different practices. Driving a car, writing a master's thesis or the way we consume food. The theory states, that all these practices are incorporated by human beings in many ways, which are being shaped through the societal and cultural context one person is born into (Reckwitz, 2002, p. 250). The practice of cooking for example uses mostly the same equipment but the ingredients and the outcome of the prepared dish differ, due to the different embodiments of that dish into the cultural context.

New practices are being shaped by human beings on a daily basis by combining certain elements with each other. These practices not only mirror the bodily capability of their creator but more importantly, shape their perception of reality through routines (Reckwitz, 2002, p. 250).

Through the internet and the technical development, many tasks have been shifted into the online world. Smartphones have found their way into the daily routines and have

become a part of them. New applications are developed every day and some practices are being substituted by new ones through technological advantages. One of these apps is To Good To Go, which tackles food waste. The issue of problematic consumption patterns in regards of food is not restricted through the borders of only one country but affects the entire global population and the upcoming generations. To Good To Go can easily be downloaded by any person, who owns a smartphone.

The application is available and active in 15 countries and can be used to save food leftovers from grocery stores, bakeries, hotels, and restaurants within the United States of America, as well as several countries of the European Union. Obviously, the numbers of users and businesses, who actively use To Good To Go differ in regard of the country. Since this study takes place in Denmark, I am going to refer to the Danish numbers, which are published on the Danish webpage of To Good To Go. These numbers show that in Denmark around 2.422 businesses are working with the application. Since the year of 2016, a community of 1.881.935 food waste savers has been developed. Moreover, the website states, that on a global scale 35.070.415 meals have been saved, which adds up to 87.676 tons CO2 (To Good To Go Denmark, 2019). To Good To Go is clearly marketed towards the promotion of sustainable food consumption habits. On the English website it states, *"Our mission is to inspire and empower everyone to take action against food waste."* (To Good To Go UK, 2019). Moreover, information around the issue of food waste within households, schools and businesses, as well as impact regulations in various countries can be collected through a database, called *"knowledge hub"* (To Good To Go UK, 2019.

This study explores the consumers side behind the usage of To Good To Go through the appliance of social practice theory. Furthermore, I want to examine, if a change in behavior is detectable through the engagement in using To Good To Go as a sustainable practice in a multicultural setting.

1.3 Problem Formulation

Therefore, this project is concerned to answer the following research question:

- *In which ways does the use of the smartphone app To Good To Go embody and stimulate sustainable food consumption behavior within young adults through the implementation of social practice theory?*

The next chapter explores the already existing academic literature within the field of social practice theory connected to sustainable behavior change, as well as research regarding the application To Good To Go. The aim of the literature review is to identify the current scholarly state of art, in order to explore gaps in the research, which could be filled through insights that emerge from this project.

2. Literature Review

As mentioned in the problem statement, this project focuses on behavior change and the appliance of social practice theory within the field of food consumption on the usage of the application To Good To Go amongst young adults. As a result, this literature review is divided into three parts, which are exploring the relevant academic research within these fields. Since sustainability has become one of the most dynamic and debated areas in academia within the 21st century (McDonagh et al., 2012, p.1), this literature review will only focus on the most important scholars and studies, in order to keep it as understandable and close to the research question as possible.

2.1 Sustainable Behavior Change

The first part of the literature review is exploring the existing work within the field of sustainable behavior change. In particular, I will focus on the value-believe-norm theory, which was developed by Stern in 1999 and the nudging theory by Thaler and Sunstein from the year 2008. The theories follow different approaches in order to study behavior

change, wherefore they provide an excellent access to the academic efforts within this specific field.

As mentioned already in the introduction, the biggest challenge is contained within the question, whether sustainable change lies *"… within the capacity of individual agents to bring about alone, or whether it requires more fundamental structural change in society"* (Hargreaves, 2011, p. 80). To provide an easy access into the topic of behavior change and sustainability, one of the most important theories will be introduced firstly. Sterns' et al, (1999) value-believe-norm theory (VBN) claims that "*… proenvironmental actions occur in response to personal moral norms about such actions and that these are activated in individuals who believe that environmental conditions pose threats to other people or species, or biosphere (…) and that actions they initiate could avert those consequences"* (Stern et al., 1999, p. 85). In other words, the VBN-theory proposes, that individuals will develop more sustainable behavior patterns, when they see that their or other people's lives are endangered by the current environmental circumstances. It can be seen that this theory depicts all human beings as equal and ignores the individual conjunctures, which can lead to a certain behavior.

Another, more current approach, which persuades someone to implement a certain behavior is the nudging theory. This approach has been developed by Thaler and Sunstein in 2008 and is an instrument, which is commonly used within marketing and the implementation of policies (Thaler et al, 2008, p.6). The authors (2008) describe the term *nudge* as a technique to alter people's behavior *"… in a predictable way without forbidding any options or significantly changing their economic intensives."* (Thaler et al., 2008, p. 6). In connection with sustainable behavior change the nudging theory has been explored by several scholars such as Lehner et al., (2016), Stere (2018) and von Kameke et al, (2018). Especially the study conducted by von Kameke et al. (2018) is important in the context of this research project since it applied the nudging theory on preventing food waste within the private household of consumers. Nudging seems to be a well-respected tool for policy creation, which is also supported by the findings von Kameke et al. (2008), who focused on individual households in the country of Germany. The researchers found out that

nudges have the potential to reduce the impact within the fields of sustainable food consumption.

The two introduced theories frame sustainable behavior change as a choice. Stern et al. (1999) implicates the change of behavior as a choice, which is being made in response to environmental changes. The nudging theory delivers the choice through altering the individual's behavior through unconscious nudges, since technically the external circumstances are staying unaltered, which allows the individual not to follow the nudge but to choose. The question is, if consumption behavior can change as easily as only by making the choice to consume differently.

Pourtney (2015) argues, that the view on sustainable consumption from a perspective of household consumption is "… *ultimately a matter of individuals' behavior*" (Pourtney, 2015, p. 93). At the same time he critically questions this statement and argues that most current existing consumption studies often leave out the demographic influences, such as the place of living, as well as political or economic circumstances, which are brought upon the individual by external institutions (Pourtney, 2015, p. 94). According to Pourtney (2015), there are more factors that influence one's individual behavior than just the plain choice itself. A similar view can be found within other scholars, who look at behavior change not only from the internal choice but also take the external factors into consideration.

Kennedy, Kohen and Krogman (2015) argue that most approaches on individual behavior change, such as Sterns' value-believe-norm theory (Stern et al., 1999) or the nudging theory (Sunstein, Thaler, 2008) are ignoring the fact, that, according to Pierre Bourdieu (1977, 1979), "… *individual choices more often reflect one's position in society rather than rational calculation*" (Kennedy et al., 2015, p. 4). This means, that the rational decision to change the individual behavior towards more sustainable patterns gets overruled by habit, which is shaped by societal conditions and circumstances. According to Pierre Bourdieu's (1986) *The Forms of Capital*, habit and therefore also consumption habits are a part of the individual's cultural capital. Bourdieu (1986) argues, that the cultural capital, which also includes how we consume, is being incorporated directly through habits as an integral

part of a person's identity. The habits of performing a certain practice are being shaped through the societal and cultural context, in which a person is being born. Moreover, are they unconsciously attached to the individual from the moment of birth through the cultural and societal surroundings (Bourdieu, 1986, p. 48, 49). In other words, this means, that the rational decision to consume more sustainable is being biased by one's individual consumption habits, which are determined by the cultural and societal background.

As a result, Kennedy et al. (2015) argue, that the achievement of a more sustainable consumption behavior can not only happen by making a rational decision to consume more sustainable. Preferably, change can happen through a determined inquiry which includes the *"… acquisition of new knowledge, the alteration of other -often complementary routines, the overturning of cultural norms, and the reconfiguration of subtle relations of power"* (Kennedy et al., 2015, p. 5). This means, that through obtaining new knowledge, behavior patterns could be challenged and changed.

Also, the scholars Douglas Holt et al. (2012) endorse the idea, that sustainable behavior change can only be reached through the adjustment of the entire believe system. They argue that unsustainable consumption choices are being made by the consumer due to personal values, such as possessive individualism, narcissism, and materialism. As a result, unsustainable consumption choices could be transformed by adapting a new value-system into society, which does not originate in the modern capitalistic marketplaces. This new value system would return society to a pre-industrialized mindset (Holt et al., 2012, p. 238). The scholars, therefore, explain that one way to achieve sustainable consumption within society is a complete structural change, away from the economic system of capitalism to a sharing culture. I have to critically question this approach, since it might work in theory but it also does not acknowledge, as already mentioned by Kennedy et al. (2015), the different cultural, societal or political context, on which individual people base their consumption choices. Holts' et al. (2012) theory only depicts a change on the macro-level, whereas the requirements for the behavior change to happen on a micro-level stay unnoticed. On the one hand the change is the result of a structural shift but on the other hand the execution of the change still lays within the consumers responsibility. The structural shift on the macro-level does not erase the circumstances of the individual

person. As a result of different cultural upbringing and distinct geographical characteristics, which provide more accessibility to certain materials and foods for some societies than for others, an implementation of a non-capitalistic value system might work in small communes but seems impossible to incorporate on a global scale. Holts' et al. (2012) suggested introduction of a value-free system would require, that all people are being perceived as equal, which would erase every sense of individuality and cultural identity. This seems impossible due to the already existing cultural differences through various historic events, as well as different nationalities and national belongings. As Bourdieu (1986) argues that habits are being unconsciously inhabited by human beings in dependence on the societal and cultural background, which turns a value-free society into an utopia, since already existing cultural identities and practices are unerasable.

Here, it is important to mention that most studies, that have been conducted in relation to this research project within the field of behavior change and sustainable consumption, focus on finding methods to prevent food waste from occurring within the private households of consumers. All studies that have just been mentioned, such as the ones by Kameke et al. (2008) have been used especially in this part of the literature review in order to illustrate the conducted academic approaches of the nudging theory in connection with sustainable behavior change. Other important research on the appliance of social practice theory on the issue of food waste will be reviewed in chapter 2.3.

In conclusion, sustainable behavior change has been studied by various scholars on a macro-level and a micro-level. The main question remains, whether the change of behavioral pattern can be achieved through a rational choice individually, or through a collective change of the believe-system. The opinions of scholars divert within this area, which underlines the difficulty in finding a fruitful approach on how to change behavior in the long-term. It can be examined that current scholars build their theories upon the work of older scholars, such as for example (from now on referred as e.g.) Bourdieu (1986). Hereby, a shift from a macro-analysis to a micro-analysis occurs, which does not only depict all human beings as one union but also contemplates the individual cultural and societal circumstances.

A more in-depth sight on behavior change is being offered through the appliance of social practice theory. This next paragraph will offer an insight on the definition, as well as academic approaches on the development of more sustainable practices. Afterwards, an explanation of the specific problem formulation and research question follows.

2.2 Change Through Social Practice Theory

Social practice theory is being used throughout this project as a tool to explore the meaning behind the usage of the application To Good To Go in relation to a change in behavioral patterns of individual food consumption habits. For that reason, the literature review will only cover the general scholarly work on social practice theory, in order to provide a universal understanding of the philosophical concepts. The theory part, which can be found in the next chapter, deepens the insights of how practice theory is being used in the context of this specific project. This means that some approaches, which offer highly sophisticated theories on social practices, will only slightly touched upon within this chapter but further evaluated in depth in the theory section.

According to Schatzki et al. (2001), all possible forms of human interconnections e.g. language, knowledge, meaning, power, or general human activity can be found within the "(…) *field of practices"* (Schatzki et al., 2001, p. 11). This explanation is of great importance, since this field of practices addresses one great concern, when it comes to the application of social practice theory onto the reality of human interactions. There is no coherent practice approach, which can be enforced upon every existing social behavior. This gets underlined by the fact, that different scholars have different definitions for the term *practice* itself. Schove and Pantzar (2005) for example, focus on the different elements, that in combination make up a practice, while Warde (2005) and Schatzki (2002) speak about the connection, which exists between these components, whereas e.g. Spargaaren and Van Vliet (2000) define a practice as a diversion between the lifestyle, lived by the individual performer and the socio- technical system, which surrounds that performer. (Hargreaves, 2011, p. 83).

Social practice theory has been explored by many different scholars from various viewpoints and angels, which adds a great complexity to the topic. To provide an easy access into the realm of social practice theory, firstly I will introduce Reckwitz (2002), as one of the main scholars and his definition of the term *practice*.

Reckwitz (2002) e.g. defines a practice as a *"routinized behavior, which consists of several elements, interconnected to one another (…)"* (Reckwitz, 2002, p. 249). Tasks like driving a car, cooking, or working on an assignment for university are being shaped by different elements, which are being interconnected and as a result, shapes the social practice. The human individual then performs these practices through the capacity of one's body and mind. Therefore, the performer becomes the carrier, who brings the practices out in the social world. Here, they represent certain routines of how each person individually perceives this social world (Reckwitz, 2002, p. 250). In other words, each practice, which is performed by a human being mirrors their personal sense of reality, which is embodied within that practice. To explain this in more detail, I am going to use the practice of cooking as an example. Different parts, such as ingredients, pots, knives, and heat are needed. These elements are then combined, due to the knowledge of the individual to the practice of cooking and therefore, not only present the personal tactile skills itself but also shape the reality of the performer. Thus, people with a difference in culture and nationality all might use similar tools, when it comes to the art of cooking but create different dishes through the use of different recipes, due to how these foods have been embodied through cultural habit into the persons reality.

When it comes to the differences in practices, Alan Warde (2005) raises the question, what types of practices are pre-dominant and furthermore, in *"… what range of the available practices do different individuals engage in, as well as what are the typical combinations of practices."* (Warde, 2005, p. 149). Warde (2005) continues to explain the importance of the level of commitment, which is brought towards a certain practice, as well as *"(…) how people come to an understanding of what is required of the practice and their role within it"* (Warde, 2005, p. 149). In other words, social practices should not be experienced as unchangeable, only because they are being perceived as the only existing

practice. Moreover, they should be explored with an open mind as a range of practices, which are being carried out by different people in different situations to identity a certain common understanding.

Warde (2005) offers some great insights on the connection of consumption and social practice theory and his work plays a key role within the used theory for answering the research question and will therefore be further elaborated in chapter 2.3.

To conclude, social practice theory is not only being used in social sciences to identify the origins and elements of a practice but also to find a symbolic meaning for individual people or certain cultural groups within the practice itself. Each individual person perceives a live through their own cultural and societal lens and therefore, each practice creates a different reality for every executor. Social practice theory offers a tool to understand, what practices mean in a certain cultural or societal context and how they come into existence.

Since this research project focuses on the implementation of social practice theory on a consumer level in connection with the application To Good To Go, the next paragraph will provide an insight on the existing studies within the field of food waste and social practice theory.

2.3 Food Waste and Social Practice Theory

Within the existing academic studies, the connection between behavior change and sustainable food consumption is mostly made through the linkage of behavior and the avoidance of food waste. Many of these studies have been conducted in similar ways by various scientist in different countries. Thus, they represent a certain cultural aspect of behavior in regards of the country, the study has been realized in.

A good example for this, is the research by Bernstad (2014) with the title *Household food waste separation behavior and the importance of convenience*. The scholars compared two methods to increase household source separation with using written information on food in the form of leaflets and the installation of equipment for source-segregation. The

results of this study showed that the written information on how to properly separate food waste, showed no increase in source-separation or collecting the food waste separately. Through the installation of the equipment on the other hand, a long-term increase in both, separately collected food waste and source-separated ratio could be measured (Bernstad, 2014, p. 1320). Bernstad (2014) assumes, that routines and habits are responsible for this differentiation. Household behaviors are parts of the daily routine, and therefore, are dominated by habits. Little to no measurements are being taken in order to change ones' behavior, when habit controls the behavior in a strong way. She further explains that social norms might also play a role in the separation behavior of food waste, especially when the recycling behavior is visible to other members of the social group. Through the implementation of equipment in the households, the food-separation process has become a normalized behavior for everyone living in the household and, as a result, brings in increase in the recycling behavior (Bernstad, 2014, p. 1321). It can be observed, that in this case the change in material infrastructure as an external factor did enable a change in behavior.

Another example by Gaiani et al. (2018) realized a similar approach within the country of Italy. A cluster analysis in Neapel with a focus on consumer behavior regarding food waste, resulted in being able to categorize the participants through their awareness and behavior in food-shopping, food storing and food wasting (Gaiani et al., 2018).

Graham-Rove et al. (2015) applied the theory of planned behavior on the prediction of household food consumption. The researchers wanted to measure the participants intentions, norms, and further parts of the spectrum of human cognitive behavior. The study concluded that the probability of participants, who have reduced their household food waste, could be predicted by intentions. Nevertheless, in the grand scheme, a variation in behavior could only be detected within 5 % of all participating households (Graham-Rove et al., 2015, p. 194).

Another study from the year of 2015 by Secondi et al. (2015) examined the food waste behavior within all 27 countries of the European Union with a focus on policy management and household behavior on a European level (Secondi et al., 2015).

A repeated pattern can be examined within these different research projects, since they all tend to focus on behavior change connected with the prevention of food waste. Even though, the applied methods slightly change, the basic level of these studies tends to be similar. In most of the existing work, behavior change is being explored within different countries, which as a result, mirrors the certain societal standards in regards of food waste. The research aims to identify an approach on how to reduce the food waste within the private households, whereas in the meantime, the symbolic meaning and experience of food consumption- and wastage, stays undiscovered.

Since this study focuses on this exact hidden meaning behind the elements of a certain task through the usage of practice theory, a clear distinction can be seen towards the already existing work.

Nevertheless, also social practice theory has been applied to certain studies within the area of consumption and sustainability.

The scholars Revilla et al. (2018) were also interested in finding solutions for household food waste and applied practice theory to find the social meaning and the function of food rituals amongst consumers in the Netherlands. Furthermore, the goal of this study was the exploration of the social meaning of food and how that meaning connects to the action of wasting food. Semi-structured interviews were applied within this study. In 10 out of 21 participants, certain rituals, such as religious rituals and household food rituals do seem to shape the individual meaning, which is attached to food consumption and food waste.

In the context of sustainable behavior, social practice theory has been used within a study, titled *Green Consumption Practices Amongst Young Environmentalists: A Practice Theory Perspective* by Perera et al. (2016). The scholars aimed to identify the process of how a "green" identity can be embodied in ones' self by exploring the subjective experiences of 21 young environmentalist through in-depth interviews. The foundation for this study was based on Alan Warde's practice theory (Perera at al., 2016, p. 843).

Within the project's title, the term *environmentalist* is being used to describe the participants. It can be assumed, that the interviewed people therefore, already had

prevalent knowledge within the field of sustainable consumption. The scholars detected 3 key aspects, which are; learning, acquiring, and interacting. Several symbolic meanings, such as happiness or empowerment are uncovered, which are connected by the participants with sustainable consumption. As well, as in other mentioned studies, the scholar's ague that social meaning is the actuator for the creation of a sustainable identity. Furthermore, the mere act of learning about sustainable behavior patterns and searching for information, actively shapes and embodies this identity in the individual (Perera, 2016, p. 856). In other words, a green identity itself is not a reachable goal but moreover, the process of learning about sustainable practices, which than are embodied through routines into the identity. Especially this study shows, how Wardes (2005) approach on social practice theory works in a real-life environment. Through routinized behavior, which is, in this case, resembled by the collection of information about sustainable habits, a green identity gets shaped. Trough the appliance of social practice theory, this study might show similarities in regards of the reasons, why people started using the application To Good To Go. As mentioned before, practice theory is a highly sophisticated method, when it comes to the exploration of practices within society and is used by different scholars within different societal areas. Nevertheless, since the study by Perera et al. (2016) focused on the development of a green mentality, it can be distinguished from this research project. Sustainable food consumption does play a part within this study but under the aspect of the app To Good To Go.

It can be concluded that most academic work uses practice theory in researching the prevention of food waste in households or to identify the meaning behind food consumption patterns. Since social practice theory is highly used within the realm of social sciences, the approaches can appear similar within the context of different subjects of study. Nevertheless, behavior change through smartphone applications has not yet been explored within this literature review. Therefore, the following paragraph targets the existing studies on the application To Good To Go.

2.4 Behavior Change and Smartphone Applications

When it comes to the conducted research on the influence of smartphone applications on the human behavior, many studies targeted the aspect of general well-being.

The paper by Zhao et al. (2016) focused on health-related apps and questioned, whether they really can change human behavior to a healthier lifestyle. Through the empirical analysis of 23 articles on smartphone health applications and health, the researchers have found, that 17 studies suggested an increase in living a healthier lifestyle in terms of lifestyle improvement, mental health, reduced alcohol addiction and increased physical activity. Self-monitoring was mentioned as the most examined action, which lead to a change in behavior but also the user friendliness and aspect of time consumption of the application might have an influence (Zhao et al., 2016, pp.,4,5). But does the same apply to food waste and changing in behavior through smartphone applications?

To narrow the review closer to the research question, not much literature could be found on the connection of mobile applications and food waste, moreover the application To Good To Go. It can be assumed that this is due to the recent appearance of food waste smartphone applications and the novelty of such in the academic realm. Nevertheless, one study needs to be mentioned in this literature review, since it directly focuses on the application To Good To Go and it's impacts on household food waste behavior. Van der Haar et al. (2019) conducted a focus group with a follow-up questionnaire. The participants were divided between new users and long-term users. The new users were asked to pick up at least one magic bag per week and could not have used the app before the study, while the long-term user have to pick up at least 3 bags before the study started. The focus group revealed that the reasons for using the app has in fact been to fight food waste but also to save money (van der Haar et al., 2019, p. 21). A long-lasting change in behavior towards food waste or new knowledge on exploring the usage through a cultural lens, could not be detected.

Even though the framework of the research conducted by van der Haar et al. (2019) might seem similar to this study, practice theory and the social realm of behavior change, as is plays a key role in this paper, were absent. It appears, that the scholars explored To Good To Go in a pragmatical way, without taking the cultural meaning and impacts on the user

behaviors into consideration. This labels the biggest difference between the study in question and this research project.

Overall, it can be concluded, that a gap in the existing literature can be found not only through the academic exploration of To Good To Go in general but also through a missing social and cultural lens on the topic of behavior change and smartphone applications. Even though social practice theory is relevant in the field of behavioral change, it has not yet been applied on the application To Good To Go, wherefore this research project distinguishes itself from the existing scholarly work.

In order to fill this gap within the existing realm of science, the next paragraph provides an insight on the theory.

3. Theory

The two main theories, which are used within this study have been constructed by Alan Warde (2005) and Tom Hargreaves (2011). Since this study explores the practice of using To Good To Go from a consumption-based point of view, the main theoretical framework is being built upon Warde's (2005) approach on consumption and social. Through his work, the different elements of the practice, which determine, whether it comes to a successful or unsuccessful performance, can be identified. When it comes to the exploration of a possible sustainable change in behavior, Hargreaves's (2011) theory on pro-environmental behavior change helps to identity, whether or not the usage of the app has an influence on the individual food consumption behavior.

3.2 Warde's Theory of Practice and Consumption

Before this section starts, it is important to notice that even though a huge compilation of scholarly work on consumption itself has been conducted, very little unified work on the connection between consumption and practice can be found (Warde, 2005, p. 132).

Most studies direct the well-established theories towards "*… highly autonomous individuals…*" (Warde, 2005, p. 132). Therefore, the consumer was left with no other than "*… no choice but to choose…*" (Warde, 2005, p. 132) with a following judgement upon that choice and it's symbolic adequacy by the researchers (Warde, 2005, p. 132). This concludes, that in older research the level of symbolic appropriation was based through the selection of the researcher and would exclude any individual circumstances from the process. Another issue is the definition of consumption. Since older definitions rather depicted consumption through a certain ambiguity between the two contrasting functions of *purchasing* and *using-up* goods and services, Warde (2005) argues that consumption cannot only be defined by market exchange. He depicts it as process of *"… appropriation and appreciation"* (Warde, 2005, p. 137) between agents for the purpose of self-expression, utility or contemplation (Warde, 2005, pp. 136, 137). The act of purchase and money exchange play only a secondary role. This can also be found in a statement made by Harvey et al. (2001), as they explained that shifts in consumption patterns occur not only through a change in demand, production and retail, but also through sociological macro-changes, such as demographic alterations and by modifications of shape and form of social practices (Harvey et al., 2001, p. 6).

Wardes' (2005) definition of consumption itself, as well as his argumentation that the basic market exchange from an economical point of view does not fulfill the purpose of exploring consumption and practice through scientific research, makes his approach optimal for this project. Especially the formation of practices is of great interest, since this study focuses on sustainable food consumption through the usage of the application To Good To Go. In this research project, consumption it not defined and analyzed from an economic standpoint.

This gets underlined through Wardes' (2005) argumentation that a more fruitful approach on consumption and practices would emphasize the symbolic meaning in terms of what people do and tell as what they really mean and not the exchange of money for goods and services. The author highlights that a practice itself combines both doings and saying. This results in a linkage between how people talk and physically carry out a practice of

any kind, which are labeled as *understanding, procedures,* and *engagement* (Warde, 2005, p. 132).

To strengthen his argument, that it is important to not only examine how individuals talk about a practice but also the physical execution, Warde (2005) states *"A performance presupposes the practice"* (Warde, 2005, p. 134). This means that in order to maintain practices within the social world, it is important to keep them performed through the social actors.

When it comes to the connection between consumption and a praxis, Warde (2005) implies that consumption and practices are deeply intertwined with each other, since consumption is created through the engagement in a social practice, rather than through a rational decision to consume a good or a service. This results in consumption rather being a moment within every social practice, than a practice itself. (Warde, 2005, pp. 137, 138).

In case of this study, this highlights the importance of not only exploring how people talk about the practice of using To Good To Go but also how they perform it, since the aspect of consumption comes to play through the action of ordering a magic bag through the app. One could critically argue, that Warde (2005) leaves out the decision, which is being made by the individual person to use To Good To Go in the first place. In his explanation, the act of consumption can only be defined through the engagement in the practice. But which factors drive people to the decision of whether or not to engage in the practice of using To Good To Go? Moreover, can this choice to pick up a practice really be labeled as something outside of the consumption process, when it is in fact the driver that stimulates the engagement in using the app.

Warde (2005) argues, that practices are not unified actions but differentiate through certain personal attributes and character traits of the executor. He uses the example of driving a car, whereas the practice gets shaped not only through past experiences but also technical knowledge, opportunities, learning and available resources. All these different distinctions are necessary, when it comes to the analyzation of either the *"… the structure of participants within the practice…"* (Warde, 2005, p. 138) or the role of the

participant itself. This internal differentiation of practices is one reason, why the linkages *understanding, procedures* and *engagement* vary between different performers.

Another reason for these variations is the cultural and societal differences. Individuals from various cultures, who participate in the same practice, might perform this practice in different ways. Warde (2005) states that cultural assets can be explained through the lens of consumption and practice (Warde, 2005, p. 144). Through the diversity of culture and cultural contexts, individual people attach different attributes to an element and a practice, due to their societal upbringing. The usage of To Good To Go as a social practice is linear. It requires a smartphone and the application, whereas the user then orders leftover food from cafes and restaurant, which can be later picked up and consumed. An interesting aspect is added to this project, when it comes to finding out how people from different cultures perform the practice.

A main point, that encourages people to engage in social practices is fulfillment of wants and needs, as well as a sense of satisfaction, once the practice is being performed in th most adequate way (Warde, 2005, p. 142). The author Sheller (2001) discovered that feelings, attached to the practice of driving a car, were describes as freedom, liberation, empowerment, and social inclusion. In contrast, people, who could not engage in the practice would feel quite the opposite (Sheller, 2001, p. 230). This example shows that emotions and to be more specific, especially positive emotions play an important role in performing a practice. In most cases consumption does not only takes place "*… for its own sake…*" (Warde, 2005, p. 142) but relates to a range of different rewards for the consumer. This can be seen within the example of brand consumption.

The purchase and consumption of brands, clothes, food, and other items serves as a medium of self-expression for the individual consumer. This means that people construct their identity and self-concepts through the consumption of certain brands and products (Lee, 2008, p. 169). Practices, therefore, act as a passage for gratification that arises from the performance of consumption (Warde, 2005, p. 142).

Since Warde (2005) stated that moment of consumption are embedded within mostly any form of social practice, it can be concluded that practices itself have evolved simply out of self-interest for the consumer as a result of the reward, which is connected to the practice.

Every individual picks up different items of different practices, whereas the commitment to the practice can be used to explore patterns of consumption and cultural activities. The change of behavior lies within the development process of each practice itself. Since each practice has a *"… set of established understandings…"* (Warde, 2005, p. 140) it needs to be performed, without having the individual person paying any attention to these certain understandings. This is the result of many repetitious performances, which turn the practice into a routine and create a chance for reproduction (Warde, 2005, p. 140, 144). This means, that through the unconscious performance of a practice as a habit, the behavior gets changed. Especially the commitment to the practice highlights an interesting point. It might offer some great insight on the usage of To Good To Go and the distinctions of commitment shown by the individual users, in connection to their perception of the application and the meaning of such.

Warde (2005) concludes that it is neither only the external nor the internal factors that influence a change in societal practices, as he stated, practices develop through *"…their internal dynamics and external conditions…"* Warde, 2005, p. 149). His approach on consumption and theory offers a wide perspective on the analyzation because he takes both, the internal and external influences in account, whereas Bourdieu (1986), in contrast, only depicts social practices through the external influences such as class and society.

The described approach on consumption and social practice is especially essential to this research project since it explains the interconnection of both entities. Consumption frames a moment within the performance of a social practice, whereas both units go hand in hand. Through applying the consumption approach on the application To Good To Go, I am able to identify, how the participants makes sense of the practice behind the usage of To Good

To Go and how the elements *understanding, procedures* and *engagement* are being experiences by the individual user.

The next paragraph explores the theory by Hargreaves (2011) on pro-environmental behavior change.

3.3 Hargreaves' Approach on Pro-Environmental Behavior Change

In order to identify the impact of using To Good To Go on the food consumption behavior of the participants, it is necessary to explore, if and how the usage of the application could become an integrated part of everyday life and change predetermined behavioral patterns. Especially when it comes to the aspect of food shopping, it is questionable, if the application could ever serve as a substitute to the physical act of purchasing food in the local supermarket.

To tie on the internal and external influences, which were explored by Warde (2005) throughout this chapter, Hargreaves (2011) argues that the internal factor is defined by the resistance of habits and conventions by the individual person. This leads to new situations, in which the performer is forced to improvise within their sayings and doings of social practices.

The external factors are fulfilled, when the individual users communicate about their individual sense of a practice, which results in different practices coming in contact with each user, since they are being share through the social world (Hargreaves, 2011, p. 84). Moreover, the author explains that, in order to develop more sustainable practices, the focus shifts from the individual behavior, attitude and choice onto the formation and stabilization of new, more sustainable practices. Through routinized behavior, the unsustainable practices are killed-off (Hargreaves, 2011, p. 84). Hargreaves (2011) argues that, in order to archive new sustainable practices, the linkage between the already existing unsustainable practices needs to be *"(…) challenged and broken (…)"* (Hargreaves, 2011, p. 83) before a recreation and a replacement with more sustainable practices can take place (Hargreaves, 2011, p. 83). According to Hargreave (2011), practices can be changed from the inside, *"(…) as practitioners contest and resists*

routines and conventions (…)" (Hargreaves, 2011, p. 84) in order to shape new situations. It is important to mention, the scholar uses the word routines. When putting this into context of sustainable and unsustainable practices, it means that the performer needs to *consciously* make the choice to break the routine, which refers to a habit, in order to create more sustainable practice. As Warde (2005) explained, practices need time and frequent performance cycles, in order to become routines and habits which than embeds them within society (Warde, 2005, p. 134). As Bourdieu (1984) argues, habits are being performed *unconsciously* (Bourdieu, 1986, p. 48,49), since the linkage between the elements of the practices are no longer made consciously by the performer (Warde, 2005, p. 140). Due to the unconscious nature of performing the unsustainable practices I am critically questioning Hargreaves (2011) statement and the possibility, that the unsustainable behavior can even be actively questioned by the practitioner. If everything happens *unconsciously*, how can the practice than be recognized and resisted in order to make place for more sustainable ones?

Even though this approach is questionable in theory, it offers a great utility for this research project. Through the embedment of Hargreaves (2011) approach on sustainable behavior change, the theory will be tested within the real-life example on the application To Good To Go. In that context it might deliver some interesting information on if and how the food consumption habits of the participants have changed during and after the usage of the application. Furthermore, it might reveal an insight in if the conscious resistance of unsustainable habits can lead to the development of more sustainable practices on a long-term basis. The next paragraph provides a short summary of the used theories.

3.3 Synopsis of the theory

In order to keep this research project as assorted and easy to read as possible, this section will summarize the most important parts of the theory in connection to the usage of the application To Good To Go.

Wardes' (2005) approach on consumption and social theory delivers great insights on the differences between sayings and doings (Warde, 2005, p. 132) in order to find out, how

people talk about the process of using the application, in contrast to how they perceive the actual performance of using To Good To Go. Through the internal and external factors, which either encourage or limit a practice, the approach on consumption might also deliver interesting insights on how people use the app in terms of user behavior and reward. Hargreaves' (2010) approach on sustainable behavior change helps to explore, if the practice of using To Good To Go on a routinized level, can break the link of usual routines, and replace with the mere usage of the app. A particular focus lays here on the substitution of the practice of going to a store with purchasing food through To Good To Go.

The next chapter of this thesis will provide an insight on the methodology, used to answer the research question.

4. Methodology

The methodology of this research project will firstly examine the ontological and epistemological framework, which is used in this project. Afterwards, the qualitative research design is being introduced in form of semi-structured online interviews, followed by an explanation of the interview guide. And the end of this chapter, the transcription and coding process are being highlighted.

4.1 The Ontological and Epistemological Position within the Realm of Science

The following paragraph will provide an insight on the epistemological and ontological reflections of this research project through the framework of social constructivism.

The book with the title *The Social Construction of Reality* by Thomas Luckman and Peter Berger has mentioned the term *social constructivism* for the first time in the year of 1966 (Collin, 2013, p. 2). The ontological point of view focuses on the nature of social entities. More specifically, ontology is concerned with the question, whether these social entities arise through the actions of the social actors, and therefore are social constructions, or if they have an external reality (Bryman, 2016, p. 28). In the ontological aspect, social constructivism refers to the creation of the material and the social word by *"… collective*

human thoughts and practices" (Collin, 2013, p. 2). This means, that social constructivism inhabits the philosophy that the social world does not have an external existing, which is independent to the social actors themselves, since the social world is constructed through interaction between the social actors. This construction of the social world does not refer to the construction of the physical composition of an object but the ideas, meanings, and social compositions, which define that object within the social context. Meaning about the social world and therefore reality itself, changes through interactions and communication between humans (Keaton, 2011, p. 192). As a result, the social world is in a state of constant change and fluidity, since not only discourse between the social actors change but as a result, also the social phenomena itself. Even though at first glance, some things in this world might be perceived as creations of nature and therefore, as unchangeable by the human being. But at a closer look these entities also appear as social constructions, created by communication and discourse between human beings (Detel, 2015, p. 228). The way humans perceive reality and all social phenomena have therefore, been brought to existence by communication, society, and culture (McCulloch & Crook, 2008, p. 547) and enter the social realm through a *"(…) collective mental state and of actions describable under collective intentions (…)"* (Detel, 2015, p. 232). This means, that the definition of reality does not only become reality through the perception of individuals or groups of people but rather gets inhabited within society as the result of exchange and discourse between the social actors (Keaton, 2011, p. 192). Through engagement with the world, the individual takes part in the creation of social phenomena.

The term *epistemology* refers to the question of what can be considered as acceptable knowledge and furthermore, if the social world should and can be studied with the same procedures and methods as the natural world (Bryman, 2016, p. 24). Within the realm of social constructivism, the epistemological framework considers all knowledge, including knowledge about the material world but also the social world as created through collective human interactions (Collin, 2013, pp. 2,3). The sense of reality and knowledge gets extracted from the communication between human beings through discourse analysis *"(…) which hold the semantic system in which knowledge is articulated (…)"* (Collin, 2013, p. 4). Discourse and the exchange of individual perceptions of reality represent the social

interests and through the analysis of discourse and communication, this knowledge gets shaped to mutual understanding between all social actors (Collin, 2013, p. 4).

This research project explores the social practices and elements behind the usage of the application To Good To Go in connection to food waste and sustainable behavior change. Since social constructivism refers to the creation of all social phenomena through human interaction with the world and social actors, also every social practice in the context of time has been created through human discourse and communication. Each social practice, which exists until this day since the beginning of humankind, has been shaped through collective interactions and communication between human beings as social actors. The invention of smartphones and even the mere possibility to create an application like To Good To Go, are the result of many complex human interactions, that appeared out of the given societal context. Social Constructivism will contribute as the main ontological and epistemological framework, since the specific concept, since it allows to explore how different human beings make sense of the practice behind the usage To Good To Go, according to their personal sense of reality.

The next chapter of this research project provides an insight of the research design.

4.2 The Qualitative Research Design

This section provides information on the qualitative research design, which is embodied in the form of semi-structured interviews within this research project. Firstly, the sampling process is being introduced, in order to highlight how the participants for this study have been selected. Thereafter, the interview guide is being explained, followed by a detailed explanation on the chosen method of data-collection. At the end of this chapter, information on the transcription and coding process are being provided, with a following paragraph on the challenges and limitations of this study.

Since the philosophical framework is imbodied within this project through a social constructivist's view, the methodology is based upon a qualitative research design.

In comparison to quantitative and empirical research, the qualitative design evolves not around data that can be measured or counted but furthermore, contemplates every form of human communication within the written, audible, or visual context, as well as cultural artefacts and symbols. Qualitative data collection can stem from emails, letter, film, or diaries. In most cases transcripts, which originate from text of focus groups or interviews lay down the foundation for the data analyzation (Gibbs, 2018, p. 3,4). Since a qualitative research is based on the participants opinion and experiences, it is more open ended, which offers a greater leeway in regards of the analysis. In most cases, the gathered data allows the research to move past the originally set aim (Gibbs, 2018, p.11).

The next paragraph provides the method of choice, which is used to collect the necessary data.

4.2.1 The Semi-Structured Interviews

The chosen research design for this project is based on a qualitative framework. The study focuses on the experiences and opinions of people, who use To Good To Go and, therefore, the method for data collection will be the semi-structured online interview. The interview in general offers a great way to focus on the perspective of the participants. In comparison to the unstructured interview, where the interviewer mostly ask one question in order to cover a certain range of topics with the interviewee, the semi-structured interview follows an interview-guide, which provide a list of question in regards of one specific research topic. Due to the flexibility in the qualitative interview, the interviewee has a great leeway in how to answer the asked questions (Bryman, pp. 466-468). The semi-structured interview provides the best option for the data collection, since it allows the participants to share their experiences and opinion about their user behavior with the application, along a pre-constructed interview-guide. The flexibility of the method can lead the research project in a whole different direction, as originally planned, which can uncover more topics and adds a certain depth to the field of research.

Each of the interviews will be audio recorded, to not only make the transcription process as easy as possible but also to be able to efficiently compare the answers and statements of the interviewees with each other (Gibbs, 2018, pp. 18 – 20).

Another qualitative method, usable within this research project could be the focus group. The focus group involves the typical interviewer, but the questions are not being asked in a face-to-face conversation but to a group of mainly four participants. As a result, the research topic is being explored within a group setting, which provides a space to discussing the topic amongst the participants. The participants rather engaging with each other, than with the interviewer, which leads to a more open conversation about the topic in question (Bryman, 2016, pp. 500 – 501). The disadvantage of the focus is however, that due to the group setting, a shift in power-dimension can easily occur. Due to the different natural characteristics of people, some group members tend to be more outspoken about their opinion, while other participants might keep their voices in the background of the discussion. This can lead to a shift, whereas the opinion of those who speak the loudest overshadow the ones who are naturally quieter. Within this project, the different elements of the user behavior regarding a smartphone application are being explored. Due to the different perceptions of the world, it seems necessary to give the participants enough time to think about their personal connection to the elements and the usage of the application. A focus group can lead to different results, since through distractions by other group members this time could be limited and people could feel overwhelmed to really reveal, how they connect the different elements of the task. To give the participants the time and environment to connect the element and practice with their personal values and cultural identity, the focus group will be ruled out as the method of choice for this research project. As a result, the data collection will be realized through semi-structured interviews.

4.2.2 Sampling

This paragraph provides an overview on the specific attributes of the participants. To ensure that the interviews have the greatest relevance as possible to this qualitative research project, all participants have been selected through purposive sampling. (Bryman, 2016, p. 408).

4.2.2.1 Age

This study focuses on young adults, wherefore the age group for the participants has been set from 20 to 32 years and has been chosen for two reasons. The main center is the behavior regarding the smartphone application To Good To Go, wherefore it is important to consider a demographical group, that is also familiar with the app. A study from 2017 suggests, that the average 20 – 24-year-old spends more than three hours using mobile apps a day, whereas elderly people over 55 years old only use apps on the smartphone for two hours or less (comScore, 2017). Younger adults are therefore more invested in smartphone apps, which leads to the assumption that the elderly generation might not have heard of the application To Good To Go, let alone have used it for their personal food consumption purposes.

The other reason for choosing this age group is the development of a green identity amongst young adult. Most explorative studies focus on younger adults, than elderly people, when analyzing the emergence of a green identity (Lee, 2016, Perera et al., 2016). Here, also the identity building through consumption comes into play. As already mentioned in chapter 3.2, consumption of certain goods or services is being used to build ones' self-concepts (Lee et al., 2008, p. 169). Since more studies on green identity and sustainability tend to focus on younger people, it can be assumed that young participants rather use the sustainable engagement, in order to construct their own identity, then it might be the case with older people. Therefore, the age of the participants will range from 20 to 32 years.

4.2.2.2 Gender

When it comes to the gender of the interviewees, the nature of the research question does not specify the necessity of having only male participants, female participants, or any other gender-identification. Consequently, the interview process will not make any exclusion towards a certain gender.

4.2.2.3 Ethical Background

In terms of the nationality and ethnical background of the participants, no specific nationality is been preferred in order to answer the research question. However, it is important to mention that this study takes place within the country of Denmark. This could result in having mostly Danish citizens as participants for this interview, whereas the given answers would lack in the reflection of a cultural diversity. In order to add a deeper intercultural dimension to this study, I am going to interview people from different national groups within the Danish culture itself. Two factors have influenced this choice. Firstly, the issues of food waste regarding unsustainable consumption patterns are not limited by borders but effect the planet on a global scale. Secondly, as Warde (2005) explained, the cultural and societal factors can have an important effect on how the participants make sense of the elements *understanding, procedures* and *engagement,* as well as how they use the application (Warde, 2005, p. 144) In combination, these aspects can offer some great insights on the similarities and differences behind the issue of food waste and the general usage of To Good To Go.

4.2.2.4 Occupation

The occupation does not label an important priority when it comes to the data collection. However, it is relevant to mention that, since the focus lays on young adults, some of the participants might be students with a lower degree of income than the average full-time employed citizen. When looking at the collected data, the income and available capital of the research participants could reveal information how people use the application. For that reason, information on the occupation will be requested from the participants.

4.2.2.5 Level of Commitment and User Activity

In order to identify similarities and differences within the practice behind the usage of To Good To Go, the commitment to the practice plays an important role. As Warde (2005) stated, when exploring social practices, it is important to focus not only on how people

speak about a practice but also on how they perform them (Warde, 2005, p. 132). To include people into the stud, who have not used the app ever, would create difficulties in researching their behavior, when performing the practice. The interviewees could than only talk about what they have read or heard through secondhand sources but could not share any personal experience.

Therefore, it is a requirement, that the participants are already familiar with the app and have purchased at least one magic bag, through To Good To Go. This one purchase so to speak, fulfills the general entrance-requirements for people to become a part of this study.

When it comes to the sampling of the research unit, the commitment to the application in form of how often it is being actively used through purchasing a magic-bag still plays a key role within this study and will be highly considered in the analysis. But since I could not find any number that indicated how often the app is being used per week or per month on an average level, I am going to conduct the interviews first. Within the analysis I will then assert certain codes to the level of commitment and usage, which will be further used to identify similarities and differences within the general usage and the meaning behind the application. The groups will be further addressed and defined within the coding section and analysis of this study, after the data has been collected.

However, the user activity is going to be embedded within the sampling of the research unit in finding participants, who use the application occasionally and committedly and These two groups will mark the pre-given sampling definition in user activity, while the further patterns between occasional and committed usage will explored through the coding process within the analysis.

4.2.2.6 Quantity of the Interviews

In order to reach a presentable size of participants, which can offer diverse and rich data, I am going to conduct ten semi-structured interviews. This number has been chosen, in prospect to the user activity and level of commitment to the performance of the practice.

Ten interviews offer a greater chance of finding not only occasional users, who might perform the practice of using To Good To Go only a few times a month but also user, who are more committed to the practice.

The next chapter will introduce the interview guide as a guideline for the semi-structured interviews.

4.2.3 The Interview Guide

Within this segment, the interview guide is being explained. Furthermore, since the interviews are being conducted over Skype, the advantages and disadvantages of online interviews are highlighted, as well as a commentary, as well a few words on the follow-up question are being undertaken.

This segment of the study explains the interview guide in detail, in order to create a further understanding for the methods and theories, used in this research project.

Throughout the interviews, the questions will be asked in a similar wording as written down in the guide, in order to ensure that all the required topics are covered, and the participants answers are comparable. If a question needs further elaboration, the semi-structured interview guide offers a great deal of leeway to do so. To keep the participants as unbiased as possible, when it comes to answering the interview questions, no leading questions will be asked, since they already suggest a particular answer. As mentioned in chapter 4.2.3, within the sampling of the participants the elements of gender and ethnical background are not being handled with any specific restriction in order to answer the research question. However, it might be possible that during the analysis certain codes and patterns in regards of gender or ethnical background are being revealed. For this reason, I created an information sheet, which contains all relevant information of the participants for further contextualizing the interviewees answers in the analysis (Bryman, 2016, pp. 468, 471). The information sheet has been adapted from an example by Flick (Flick, 2009, p. 299) and will be filled out by the participants after they signed the consent form and before the

beginning of the official interview. It can be found in appendix 3. No conclusion to the identity and persona of the participants can be made through the information in the sheet.

4.2.3.1 The Interview Questions

As explained in the theory section of this study, the main theoretical framework, which is used to answer the research question, is being offered by Warde (2005) and Hargreaves (2011). In order to ensure, that all themes, which are provided through the theory, are covered in the interview guide, the questions are being arranged in a specific order. This order, firstly covers the user activity, followed by meaning and association with the practice, over the actual performance in connection with the aspect of consumption to the impact on the own food waste behavior and embodiment as a habit in the everyday routines. I will keep the asked questions as open as possible, to give the interviewee as much freedom to answer and further narrow the answers down, when some things are in the need of elaboration. In order to do design the questions, I looked upon the general research area, in which this project takes place in and tailored them towards the specific research question.

Examples of interview questions are:

- How often do you use the application in an average month?
- What is your motivation behind the usage?
- Have you ever stopped using To Good To Go? If yes, please elaborate why.
- Has the usage of To Good To Go influences your own relationship towards food and do you think it actually can help with food waste?
- Have you ever wasted any food, that you purchased any through the app?

The interview guide can be found in appendix 1.

All the questions will provide the necessary data to further analyze the participants opinion and sustainable consumption patterns, regarding the social practice of using the application To Good To Go, which is related to the research question.

The next passage provides an insight on the chosen method of conducting the interviews, as well as the advantages and disadvantages of the process.

4.2.4. The Qualitative Data Collection through Skype Interviews

Bryman (2016) states that in a traditional way qualitative research is being conducted through face-to-face interviews but, for a number of reasons, such as time, money or convenience, could also be conducted online (Bryman, 2016, p. 475). Even though the participants for this study mainly came from the city of Aalborg, some interviewees are currently located in Copenhagen or other cities. But the location of the participants is not the only reasons, why the data conduction has been shifted from the common face-to-face interview to online personal interviews. A great factor, that added an increased level of difficulties to the more personal face-to-face interviews, is the current global Corona-pandemic and the connected regulations of social-distancing. Due to the current global situation, also the country of Denmark has been established necessary actions, which prevent the virus COVID-19 from spreading. Physical contact is to limit as much as possible and a safety distance should be kept towards other people (Sundhedsstyrelsen, 2019). Not only made these regulations a physical meeting for the interviews difficult but the country of Denmark has closed all public facilities, such as universities, libraries, and schools for a certain amount of time. Finding a place to conduct the personal face-to-face interviews has been aggravated, due to these necessary governmental regulations. This leaves the home of the participants as the only possible place, to conduct the interviews. But since the regulations stipulate a safety distance, the entire interview process has been shifted to online interviews, which were conducted through Skype. The free software OBS Studio has been used to record the interviews for the purpose of the following transcription process.

4.2.4.1. The Advantages of Skype Interviews

The software Skype has been chosen as the main tool for the interviews, since Bryman (2016) highlighted the similarities of the Skype-interview to the personal face-to-face interview. Even though interviewees are not physically present in the same room, a "… *visual element, that is akin to a face-to-face interview…*" (Bryman, 2016, p. 492) has been created through the usage of the webcam. A certain familiarity and sense of comfort was added through this visual element, since it allowed me to connect with the participants not only through words but also through facial expression and gestures. Other advantages of the Skype interviews are, that, since no room needs to be booked in advantage, changes in time can easily be arranged, without effecting any third-party schedules. The participants also do not need to travel anywhere, in order for the interview to take place, but can answer the asked questions in the comfort of their own home, which might increase the chance of participants aggreging to the interview (Bryman, 2016, p. 492).

4.2.4.2. The Disadvantages of Skype Interviews

But the data conduction through Skype interviews also brings certain disadvantages. The recording can not only be conducted through a smartphone, which would automatically ensure a great audio quality, but a specific software needs to be installed on the computer to record the audio. Within this study, the software OBS Studio has been used for the audio recording but even with a good audio recording software, errors still can occur in the recorded file due to technical issues with the microphone output or the recording software itself. For that reason, I also recorded the skype conversation with the smartphone, in case the file through the computer was corrupted.
Other issues can occur through interferences in the internet connection, which leads to a loss in sound quality and makes the recorded file less understandable (Bryman, 2016, p. 492). Those parts of the interview, which could not be transcribed due to poor audio quality have been marked with [inaudible] in the transcripts.

The next segment will highlight the interview process in terms of the follow-up questions.

4.2.5 Follow-Up Questions

A follow-up question generally provides a richer understanding and in-depth perspective on the theme or topic in question (Rubin, J. et al., 2005, p. 2). During the interview process, follow-up questions occurred, when I wanted to gain a deeper insight on the opinion or statement, said by the participant. Some of the interview questions just came to mind after the first participants shared the experience with the application and were for that reason, afterwards included to the interview guide. One particular question about the aspect of saving money as a reward for engaging in the social practice, appeared as important, when all interviews have already been finished. For that reason, I conducted a short follow-up interview with all participants, in order to ask these particular questions (Rubin, J. et al., 2005, pp. 2,6). The second short interview can be found within the transcript of each participant after the regular interview under the category *follow-up question*.

The next paragraph of this chapter is going to explain in detail the transcription process of the interviews, in order to convert the spoken word into written text.

4.3 The Transcriptions

This passage explains the transcription process. The first paragraph within this chapter explains the consent form in regards of any occurring ethical issues during or after the interview process, as well as the anonymization of the participants in the transcripts, while the second paragraph highlights the method of transcription.

4.3.1 Ethical Issues

In order to make the process of transcribe the audio recording of the spoken word into text easier, each interview will be recorded.
To ensure that no ethical issues occur during or after the interviews, regarding the participants' anonymity, a consent form must be signed by each interviewee beforehand. Through the signature, the participants will give fully informed consent to the interviews.

(Gibbs, 2016, pp. 13, 20, 21). An option to withdraw from this study, without naming any reason, exists at any time. Only after each participant read and signed the consent form and therefore, agreed to the interviews and the recordings, the interview process begins. An example of the consent-form can be found in appendix 2, while the transcripts of the interviews can be found in appendix 4 – 13.

The following paragraph will explain the method of transcription in more detail and is also going to highlight the importance of anonymity towards the research participants and how it is ensured within this project.

4.3.2 Method of Transcription

This study and therefore, all the transcripts of the interviews will be publicly accessible for further researchers to review once it is finished. For that reason, it is of great importance, that I always ensure confidentiality in regards of the collected data, as well as private information of the participants. The transcripts, therefore, do not contain the names of the interviewees (Gibbs, 2018, p. 20) but instead, each participant is being addressed as PARTICIPANT A, … B, … C in alphabetical order. Therefore, confidentiality is ensured, since no connections to the identity of the participants can be made through their names.

In the appendix 4, it can be seen that the interviews A and B are written down within the same transcript. Usually, I only interviewed one participant in during one interview session, whereas one transcript also represents the answers and data, which were collected from one individual person. But since participant A and B not only share a household but also the application To Good To Go, which results in them using the application only together at the same time, I conducted a small group interview with these two participants. Therefore, the answers in the transcript represent the opinions and feelings of both interviewees. All other interviews were only exercised with one participant at the time.

When it comes to the strategies for transcribing the interviews, Gibbs (2018) suggests, the quickest one is to only transcribe parts of the interviews. Unimportant parts are not

being implemented in the transcripts, whereas only the important wordings and phrases are taking into consideration. This means, that all the times where the interviewees went off topic with an answer, it is not included in the transcripts, in order to keep the focus on the important themes and key points (Gibbs, 2018, p. 20). This method has been partially implemented within this study. Even though, if the participants went of topic, when answering a question, the transcript still contains the full conversation, meaning no conversational parts have been cut out. This has been done, since the context of why some participants might go off topic, when answering some questions, still can reveal some interesting information. Therefore, only the speech disfluencies have been cleared in the transcripts, to make them easier to read.

The next chapter explains the method of analysis.

4.4 Thematic Analysis

This paragraph focuses on the analytical approach, which is being used to analyze the data. Furthermore, the coding process is being explained in detail, in order to provide an understanding about the relation between the theory and the data, as well how important points were extracted from the transcripts.

Since this study is using a qualitative research approach, the thematic analysis is being used as the methodological tool to analyze the collected data. Through the thematic analysis, certain categories, themes, and codes are developed, which reflect specific key points and patterns in the data. I have chosen the thematic analysis as the main tool for analyzing the interviews, because it offers flexibility within the process, while still making sense of large sets of data in a logical way by finding these specific themes and patterns (Saunders, et al., 2016, p. 579).

4.4.1 Thematic Coding and Descriptive Coding

In terms of qualitative research, a code represents an idea, theme, theory, or characteristic within the data. Through the coding process, answers, which are made by different participants can be linked together by the same codes, which highlight similar connotations between these passages (Gibbs, 2018, p. 190).

Gibbs (2018) suggests that the coding progress gets alleviated, if the coding is carried out rather from the transcripts than directly through decrypting the recorded audio files (Gibbs, 2018, p. 55). As a result, the themes, and similarities within the answers of the participants can easily be extracted from the written text of the transcript. To fully understand the ideas behind the words, in order to build a certain hierarchy in regards of the different questions itself, the thematic coding is being used, to categories the key points into themes.

4.4.2 Concept-Driven Coding

The theory of this project lays down the foundation for the interview guide and the analysis, whereas the data is being coded, organized, and analyzed through a concept-driven approach. This means, that the codes, which are extracted of the gathered date, are aligned along with the theory and literature of this study, as well as certain topics within the interview guide. Before I started the coding process of the interviews, I have used the framework analysis to identify certain key themes, which are highlighted through the literature and theories. After these themes are build, I searched through the interviews in detail, to find similar patterns and schemes in the data (Gibbs, 2018, p. 61).

4.4.3 Categories and Codes

The research question of this project aims at identifying if and in which ways the smartphone application To Good To Go stimulates sustainable food consumption behavior in young adults. The theoretical foundation is being laid by Wardes' (2005) approach on consumption and practices and Hargreaves' (2011) theory on pro-environmental behavior change. Within the analysis, Wardes' (2005) work is being used

to identify the elements of *understanding, procedures* and *engagement* in order to explore, how the individual participants make sense of using To Good To Go. In addition, Hargreaves' (2011) theory offers a framework to identify a possible behavior change, which stems from using the application To Good To Go on a routinized level. Since the application is being constructed to purchase food for a cheaper price from restaurants and stores, which otherwise would have been wasted, the aspect of sustainable behavior change aims towards the user's food waste behavior.

In order to analyze the findings in an organized way, three categories have been created, which are further defined through sub-categories. These categories have been labeled as **characteristics of the practice, performance of the practice** and **behavior change**.

The first category *characteristics of the practice* explains the main factors, that are necessary to further build a framework around the actual behavior within the application. Therefore, the category is being depicted as followed:

Characteristics of the Practice

- *User Activity / Commitment*
- *Sustainable Consciousness*
- *Image / Meaning*

In order to build further focus on the usage of To Good To Go, the next category introduces the drivers of the practice. These are factors, that encourage the further usage to a point, where the performance of practice might become a routine. In contrast, this category also speaks about the limitations of the practice, which could be found within the participants' answers.

Therefore, the category *Performance of the Practice* is depicted as followed:

Performance of the Practice

- *Drivers of the Practice*
    - *Rewards / Feelings and Emotions*
- *Limitations of the Practice*
- *Favorite Restaurants / Food*
- *Cultural and Societal Influences*
- *Choices within the Performance*
- *Habit Development through Repeated Performances*

The last category focuses on food waste behavior within the performance of the practice, the development of habits through routinized behavior and the possible behavior change through nudging and the development of habit.

Behavior Change

- *Food Waste Behavior within the Application*
- *To Good To Go vs. Grocery Store*
- *Sustainable Behavior Change through Nudging*
- *Sustainable Behavior Change through Habit Development / Breakage of Unsustainable Habits*

It is necessary to mention that all these aspects are influenced by different factors, that can submerge from another category or sub-category. This means, that all these factors, that frame and shape the practice behind the usage of To Good To Go, influence each other and show a certain codependency. This codependency will be further explained in the specific points throughout the analysis.

4.5. Limitations and Challenges

This paragraph presents the limitations and challenges of this research project, in order to offer an understanding about certain choices, that have been made throughout the study.

First, it is necessary to mention, that due to the complexity of social practice theory and the different philosophical approaches, the topic is too vast to be further evaluated, than it has already been done within this project. Furthermore, with the connected topic of behavior change, many academical approaches on social practice theory focus on the psychological aspect of human behavior. Especially, when conducting research on habit change and the feeling of being rewarded for performing a certain act of consumption, the border between social sciences and the psychological realm can be hard to distinguish. Since this study aims to explore the practice of using the application To Good To Go from a standpoint of sustainable food consumption through a cultural lens, the psychological aspects of habit development, social practices and the human reward system play a lesser role.

When it comes to the research method, limitations arise, since only one method, the semi-structured interviews, has been conducted to collect the data. Other methodological approaches, such as the focus-group could have been an alternative and might have created different results. But since this study focuses on the performance of a social practice, it is important to consider the factors, which shape the practice for each user individually. This would have been distorted through the focus group, where it is most likely to happen, that personal opinions and experiences get changed or overheard due to the shift in power-dimension that can occur during group interviews.

Ethnography could have been another option, where the performer of the practice is being observed, while using the application To Good To Go. This would ensure, that the individual influence on practice could be witnessed firsthand during the performance and not through the recall of memories, as it happened with the semi-structured interviews. Even though the participants have been asked to share the experience of using To Good

To Go as explicit and truthful, it cannot be proven, that this is the case, as they only answered the questions through memories. With applying ethnography as the approach to this study, this would change, since the data could have been gathered through the mere performance of the practice. This could have offered some information, that might have been gone missing in the interviews.

In regard of the limitation of the availability of the target group, it is necessary to say that most of the participants were students or recently graduated university. Even though the participants were chosen randomly, since it focuses on the performance behavior of young people between the age of 20 and 32, it is predictable that most participants might currently pursue a university degree. Nevertheless, a diversity can be found in the study programs, which means that a certain bias due to pre-given knowledge towards the subject of the study, as well as the interview questions was eliminated as much as possible.

Even though the participants were chosen by purposive sampling, a limitation occurs, when it comes to the user activity and commitment to the application To Good To Go. As mentioned in chapter 4.2.3.5, the participants been chosen by the fact, that they have used the application once, in order to ensure, that they are familiar with the usage. This means that the user activity has not been taking into consideration, when the particular participants have been picked to be interviewer. The reason is, that the commitment to the practice would have been known beforehand, in order to decide, whether a participant is suitable or not. In order to establish a certain suitability, I would have needed to talk to the interviewees about their user behavior before the interview has taken place. To prevent a bias from happening, which could have manipulated the genuineness of the answers or the user behavior, the participants have not been selected by a pre-defined level of user activity. Ten interviews have been conducted and a number of eleven participants have been asked. A slight imbalance can be seen in the user behavior, since it presents more occasional user, than participants with a committed activity. If more committed participants would be included in this study, the gathered data would have shown even different aspects on the performance of the practice.

4.5.1 Challenges due to COVID-19

Challenges also occurred in relation to the COVID-19 lockdown. Originally, I planned to conduct the interviews in person, since that would build a closer relationship between me, as the interviewer and the participants. Also, the usage of the application To Good To Go as the performance of the practice in question could have been directly incorporated into the interview process. I had planned for the participants to walk me through their individual usage and explain in detail, how they perform the practice. They would then actively use the app within this study and not only recall their user behavior through memories. Since close contact to people has been prohibited by social distancing, online-interviews have been the only option for collecting data. Therefore, all other methods like face-to-face interviews, focus groups or ethnography are, hypothetically speaking, possibilities but could not have been incorporated into this research project, due to the current external circumstances.

The next chapter analysis the interviews according to the previously introduced categories.

6. Analysis

This chapter analyzes the findings from the interviews according to the category's characteristics of the practice, performance of the practice and sustainable behavior change.

6.1 Characteristics of the Practice

Firstly, the user activity and commitment are being explored, followed by the sustainable consciousness and the associations and meanings behind the practice.

6.1.1 User Activity / Commitment

This sub-category is concerned with the user behavior in general, in order to figure out, how often the application is being used by the individual participants. The level of commitment and user activity plays a crucial role in exploring To Good To Go as a practice, since Warde (2005) states, that through the commitment to a practice, certain consumption patterns can be explored (Warde, 2005, p. 140).

Within the interviews, all participants have been asked to recall their user behavior from the last few months and define their own usage as either occasional or committed by their own definition.

Occasional Usage:
During the interview process it became visible, that more people described themselves as occasional users, than committed ones. The following sentences from the interviews highlight, that even though the application has been installed on the phone, it is being used very irregularly:

I have it installed but I have not used it for several months. I think all in all I have had it since August or September last year and I have used it three times. So, I have it, but I don't actively use it.

Figure 1: Participant B, Appendix 4, p. 2

I would say, yeah occasional. I mean there are not so many restaurants in Aalborg, so there are not so many options, so I have maybe only two, three favorites and I am just buying from them maybe once a week, once in two weeks or sometimes once a month.

Figure 2: Participant E, Appendix 7, p. 2

Through the answers it becomes clear, that the occasional usage happens very infrequently only once in a while. A user pattern as a form of routine cannot be detected,

since most participants stated, to have the application installed on their phones for a certain time but not having used it in total for more than a handful of occasions.

Committed Usage:

To capture the times of usages of more committed activities, a statement by participant J explains the following:

> I think I can actually check and tell you for a fact, here in the orders. So, the first order was on the 19th of march and until today the 21st of April I have used it within a month [counts] like 11 times [laughs]. So, I have been very active.

Figure 3: Participant J, Appendix 12, p. 3

Furthermore, this interviewee continues to explain *"Well, now I am definitely committed, and I check it every day …"* (Participant J). Within this participant's user pattern, a frequent behavior can be detected, since To Good To Go has been used for eleven times in the span of nearly a month. Also, within the usage of interviewee K, a frequency in the usage became visible:

> But I would say I use it …. It really depends on the moments and sometimes when I am really busy, I don't think about it existing, but I would say maybe once every two weeks or something like that.

Figure 4: Participant K, Appendix 13, p. 2

Even though the usage did not happen as often as within the previous example, a pattern in the behavior can still be detected. This participant speaks about an important point, since she explains, that her user behavior depends on how much time she has available, as well as if she remembers to use the app. This makes it difficult, in the context of this

study, to really grasp the direct differences between the occasional and the committed activity. The usage of the app To Good To Go seems to fluctuate, which created a certain obstacle in defining the quantity for occasional and committed usages, since can change instantly. The change in user activity and the apparent dependence of the performance of the practice on time can also be seen through the following statement, which is made by participant C:

> Well, I think it is also dependents on what time you use it. When we moved to Denmark, in the beginning I would have described myself almost as committed user but as I said, recently have become an infrequent user, so we used it from time to time. Now I would describe myself as an occasional user since it declined so much.

Figure 5: Participant C, Appendix 5, p. 2

In case of this interviewee, the usage started with a committed pattern but declined over time. Warde (2005) states that the key to changing behavior through social practices, lies within the development of a progress through repetitive performance. (Warde, 2005, p. 140). But in case of the application To Good To Go, it seems that there are certain factors, that influence the commitment to the practice and the usage of the application itself.

6.1.2 Sustainable Consciousness

Throughout the interviews, a pattern became clear, which evolved around how people talk about the usage of To Good To Go and how people would perform the practice. This pattern embodied itself in a certain pre-given sustainable consciousness, that could be found in the answers. Some of the participants were more outspoken about sustainable issues, the environment, and the saving of food than other. This especially shined through when the interviewees were asked about their motivation behind the usage. The following example contain the answer of participant F to the question, if she still uses the application:

> Yes, I do, and I am curious, every time I go to a new city I want to see if the app is working. So, for example, when I was in Denmark, I discovered it, I checked also for Italy and that time Italy was not there yet. But I recall that during that time they were starting to have it, so I just texted my friends and my cousins and told them, hey you have to use it in the big cities, like Turin and Milan, in the area where I live.

Figure 6: Participant F, Appendix 8, p. 2

This interviewee discovered the application in Denmark and automatically wondered, if it would also be available in Italy, her country of origin. A high sustainable consciousness can be detected within the answer, since she would automatically not only use the application in Denmark, but furthermore invest her time in finding out if she could also use it in her home country. Moreover, when she found out, that the application was launched in Italy, participant F would inform her cousins and encourage them to also participate in the practice. Through the sharing of information about sustainable practices, it can be seen, that this participant is highly interested in sustainable practices and the issue of food waste. Also, the viewpoint of social constructivism, which shapes the ontological and epistemological framework of this study, gets underlined through the actions of this participant. It is the discourse and communication of practices and phenomena between the social actors, which shape the reality and change, how the world is being perceived. In this case, the participant picked up the practice of using To Good To Go and communicates the experience of the practice to her family, with the result, that the practice therefore, entered their individual sense of reality.

A similar sustainable consciousness can be found in other participants, as proven by the following statement:

Yeah I also think the food is not being wasted, in that sense because it's the reality that like nowadays there is so much food waste all over the world and you can use that for so many different uses besides throwing it out and I think that mark of doing something good and minimizing this impact, so I think it is a super good concept for preventing more food waste because I still think, that people not only the supermarkets but also people in general waste a lot of foods in their households. But here in Denmark it has always been really progressive in these sustainable things, so it's nice, that they do this on different platforms and with food they have a lot of programs, where in the stores it is more like a private [thinks] In terms of the stores wanting to do this but they also have the collection of bio trash, so basically you can there also recycle your own food waste. So, I think it's a very nice strategy and they have this cooperation, where the consumers, companies and the government and public institutions can find a common way to deal with food waste. So, I think it is a really interesting phenomenon and of course it is much needed.

Figure 7: Participant J, Appendix 12, p. 4

A high level of investment in sustainable causes and general knowledge and passion for sustainable topics can also be found in participant J. This green consciousness is not only being detected in the positive wording, with which she describes the food waste movement in Denmark and the app as "(…) *much needed* (…)" (Participant J), but since she speaks about bio trash stations in the stores as another sustainable practice. In comparison, other participants, however, depicted the app in a more pragmatical way, since the spoke about using it mostly for the purpose of saving money. In that case, the wordings of the participants lead to the believe, that the personal interested in sustainable causes is lower. Of course, this can only be argued in retrospect to the participants answers. When, for example, the interviewees were asked about the associations with the application, participant C answered *"Cheap food [laughs] and good food. I would say restaurant food,*

that is cheap." (Participant E – Appendix 7). The interviewee generally seemed less enthusiastic about using the application for the greater good.

But when it comes to the differences in user activity, a higher sense of sustainable consciousness could be found in both, the occasional and the committed users. This means, that there are other factors, than only an understanding, awareness and knowledge about sustainable practices, which have an impact on the user behavior.

It is necessary to mention, that this specific sustainable awareness has a great influence on how the participants spoke about the practice, which represents the *saying*, but also on the *doing*, which refers to the actual performance of using To Good To Go.

For that reason, the sustainable consciousness marks an important point in this study and can be found as one of the main pillars, when it comes to the comparison of the participant's individual performances. Especially within the question about the impact on the own food waste behavior through the usage of the application, the sustainable consciousness plays a crucial role, which is being discussed in a later section of the analysis.

6.1.3 Understanding / Meaning

The app is being used to save leftover food from restaurants, cafes and grocery stores and allows the user to purchase the food in form of magic bags for a cheaper price. The mere purpose of the application, therefore, is the elimination of food waste and the encouragement of more sustainable food consumption habits.

The symbolic meaning and image, which falls under, how they speak about the practice, also have a great influence on how they use the application. One could argue, that if the way the participants' make sense of the application does not include using any sustainable reason, a change of behavior towards a more sustainable food consumption might be impossible.

When the participants were asked about their personal associations towards the application, almost every single interviewee mentioned that they do associate the usage

with sustainability and saving food. Terms like "*(…) saving food (…)*" (Participant C), *"(…) green (…)"* (Participant F), *"(…) saving leftovers (…)*" (Participant H) and *"(…) sustainable purpose (…)"* (Participant J) were used. It becomes clear, that through the mere purpose of the application, the associations with the practice are therefore, linked to the sustainable action of saving food. Whether the participants used the application only a few times per month or various times a week, did not play a role.

Another mentionable association were the connection of To Good To Go with cheap food. Every participant of this study connected the usage to the purchase of cheaper food, which shines through within the following statement

(…) what attracted me initially to the application, was kind of the a win-win situation, like you as a consumer get the food a little cheaper as you would otherwise and the restaurant or whoever is selling you the product make a little money instead of wasting it.

Figure 8: Participant G, Appendix 9, p. 1

or participant I, who said "*Well, I kind of have an interest in eliminating food waste and trying to help and mixed that with saving money, so I think that is really nice.*" (Participant I – Appendix 11).

Even though these are only a few examples of the participants, the aspect of cheap food has been mentioned throughout every single interview. This means, that the cheaper price of the magic-bags seems to play an important role, when it comes to the performance of the practice.

In terms of the symbolic meaning, something that has rarely been mentioned throughout the interviews, is the creation of ones' identity through the engagement in the application as a sustainable practice. An example is giving by this statement of participant F:

I think most of it is the moral reason, so the fact that I … I can say I am also a feminist, I am not sure if that is relevant but I am for a system change and the system does not only needs to be changed in a way we perceive and think about gender roles and everything but also how we deal with the environment. I mean we are seeing it so much and I think people need new tools, that are also fun in a way, so maybe it is the thing that it is cheaper and this attracts in a way, in my opinion but at the same time you have the effect of having an impact on the environment and how much food is going to be thrown away and if you really think that you can use an application… I know it's something that you maybe never eat and it's also a win-win combination, you know.

Figure 9: Participant F, Appendix 8, p. 4

It can be seen that this participant shows a high degree of environmental consciousness in the way she describes her thought process, when being asked about her user motivation. Furthermore, she connects the usage of the application to her self-identification as a feminist, as she begins to speak about a needed system change in terms of gender roles and sustainable behavior. In fact, this participant also associated the usage of the application To Good To Go with the color green and her move to Denmark, which she describes as a "*… very important period in my life, where I met very important people and one of that is one of my best friends and she was the one that actually suggested to me to use the app.* (Participant). Through the strong positive and emotional connections to the usage, as well as describing the practice as part of her being a feminist, it becomes clear, that the performance of the practice is contributing to her self-definition. This interviewee has been the only one, that connected the usage of the app towards her identity and self-definition. However, this does not mean, that this is not the case within other participants. But in case of analyzing the answers within the interviews, the engagement in the practice as a component of self-definition did not shine through anywhere else.

6.2 Performance of the Practice

This part of the analysis will explore the actual user behavior within the performance of the practice. In order to do so, it is important, what motivated the consumer to engage in using To Good To Go, and which factors are hindering to the development of a routinized user activity. Therefore, this paragraph is concerned with the drivers, the limitations of the practice. Furthermore, it explores favorite foods and restaurants and the attached meanings to these foods, cultural and societal influences on the practice and how the usage is being perceived in connection to shopping food at the grocery store.

6.2.1 Drivers

According to Warde (2005) it is essential for a social practice to be performed in a repetitious pattern, which then will manifest itself as a habit within the individuals' reality. (Warde, 2005, pp. 140, 144). In order to identify certain patterns and similarities in the user behavior, it is essential to this study, to find out, why people use To Good To Go. The term *drivers* reflects all factors and feelings within the performance of the practice, that encourage the usage and are therefore, necessary to habituative the usage through repetitive behavior, which ultimately could lead to a change in behavior.

6.2.1.1 Saving Money

As already mentioned in the paragraph, which explored the image and meaning behind the usage, one factor that came up in every conducted interview, has been the purchase of cheap food. The fact, that the aspect of being able to save money, when using To Good To Go has been pointed out by people who use the application two times a month or various times a week, as well as interviewees with a high degree in sustainable consciousness and no sustainable consciousness at all, labels this driver as highly important. One could argue that a certain sustainable identity must exist within every participant, since the user automatically participates in a sustainable practice, when using To Good To Go. However, through the answers of some individuals, it becomes clear,

that for them, the usage merely serves the purpose of saving money on food. The aspect of sustainability in the practice comes second.

When asked about the purpose of the usage, participant E states:

> Well, the motivation is, that the food is cheap, so its cheap food and the restaurant food. So for example, with some restaurants you cannot effort to buy food from them, but with this offer it is very convenient [inaudible] you can also try the food through the app and if you like it, you can go on and eat.

Figure 10: Participant E , Appendix 7, p. 3

Here it becomes visible that the mindset of this is firstly placed towards the purchase of cheap food. Also, within the answers of participant I, it can be seen, that saving money is a great driver in using the application, as she states in regard to the question, which food she likes, as she said *"I think the sushi place, from the running sushi, because you got a lot of good sushi and it was really cheap"* (Participant I).

The aspect of saving food seems to be an immense driver of the practice. This gets underlined by the fact, that the participants mostly connect the usage back to a time in their live, where they had no proper income, which is the time at university. Participant I, who used the app on an occasional basis, answered, in regard, whether or not the motivation behind the usage stems from a sustainable viewpoint *"Partially, but I think what drew me the most was you save all that money and you get good quality food and big amounts of food, so that was more the student in me"* (Participant I).

Also, participant K, which showed signs of a higher sustainable consciousness, answered, when asked about her motivation:

The first thing I think about and I often describe this to friends, who don't use it, it's a win-win. And I really like this concept and then I would think about to reduce food waste and it is also kind of a good deal for me as a student, because it's cheaper. Or as a non-student I mean. Now I am studying in a master's but before that I was working as an engineer for four years and I was still using it, so it's not only about the cheap deal.

Figure 11: Participant K, Appendix 13, p. 1

It can be detected, that even though the participants have a different degree in user commitment and sustainable consciousness, the connection to student life is being made. The time during university is associated with having to live on a budget, wherefore To Good To Go is mostly being used in the context of saving money. When the interviewees were asked in the follow-up question, if they would still engage in the practice, when the food would not be cheaper, most asked participants denied the further usage or stated, that they would at least use the app not as often. The reason for this is the comfort of having a choice, firstly when to eat the food, of which foods to eat and also to consume food with a good quality.

I don't think I would [inaudible] So I think if it would be more expensive. I don't think I would bother to pick up the food at odd times and wait to eat till like 10:00 o'clock at night, so no I would not.

Figure 12: Participant B, Appendix 4, p.9

I think that I would do it but then I would like to choose of what to get based on the leftovers of what they have. I would not go blind but I would like to choose of what I can put in of what is left over, because maybe I come there and I just tell them, okay if this is what you have left, then I would pick this, this and this.

Figure 13: Participant F, Appendix 8, p. 10

Good question [laughs] well, I don't know. Cause it really depends, like, I guess I mostly get bread but also things from the supermarket and so on and you have to accept, that you have to eat that food fast and usually the food it pretty good but sometimes the bread can get dry faster, so to be honest I would definitely have the drive to save food, but on the other hand as a consumer, I would not like to pay the same for something, that is of less quality, you know like second hand clothes, that I buy for the same price as new clothes and I guess I would have a hard time, even though if the clothes have only been worn twice and it actually as good but it's kind of a mental thing. So, I want to say, that I would be willing to pay, because I would be so engaged in saving food but I am not sure to be honest and I don't think a lot of people would. But even myself, when I think I have a strong motivation of the concept and not only the price, I am not sure I would. Maybe I would then do it not as often.

Figure 14: Participant K, Appendix 13, p. 11

Since all most participants stated, they would not use the application furthermore, if the food would not be cheaper, concludes, that the aspect actually saving money on food through the engagement is a highly motivational factor. As a result, this means, that To Good To Go as a sustainable practice is not only being used for the sake of saving food, but at the same time, represents a reflection of the current life-circumstances of the user. One could argue that therefore the user activity within the practice might change, as soon as also the external circumstances change, and the student status changes to a full-time job. This possibility gets further explored in chapter 6.2.2.1 Pick-Up Times / Time Management. The next category is going to explore the surprise effect of the application.

6.2.1.2 The Surprise Effect

Another driver, that keeps the engagement in the practice alive, is the fact, that the content of the magic bag is mostly unknown. This means that the consumer has a slight idea of what is in the bags, due to the nature of the store or restaurant, but can only be fully sure once the bag is being purchased and opened.

For some users, this surprise element acts as a driver, since participant H explained *"I think it always like a kind of surprise bag, so you don't know what you going to get, so there are some kind of expectations attached to that (…) I think it's a good thing, it's like gambling [laughs]."* (Participant H). The aspect of not knowing what exactly is in the bag, is being perceived as exciting, due to the comparison to gambling.

Participant J, who uses the application committedly a few times a week with has a high level of sustainable consciousness, explains:

> Yeah, I think it's about this surprise factor, because I would still go and do groceries of course, now I would have to do it more often, then when I am at work, but I think it is the surprise factor and also kind of adding to my routine in a way, that I don't know what to cook anymore, so I go there, I get this bag and it's like you get whatever and then you have to figure out what to do with it, so it also get me into experiencing more with my food [laughs].

Figure 15: Participant J, Appendix 12, p. 2

Throughout this answer, the participant shows a highly positive attitude towards the element of surprise, since it forces her to think outside the box, when it comes to her usual cooking routine. She depicts the usage as a challenge, since she has to figure a receipt to cook with whatever food she purchases through the application. In both cases, the element of surprise is connected with the emotion of excitement, which adds as a driver, since through the positive emotional connection to the usage itself, the behavior gets repeated. But not all participants described the surprise effect of not knowing what is in the bag as a positive thing. Since the vague description of the bag's content is one reason,

why some participants decided to limit their usage of To Good To Go and rather continue shopping at the store, this point will further be analyzed in paragraph 6.2.5 To Good To Go vs. the Supermarket.

6.2.1.3 Reward / Feelings and Emotions

In order to explore the rewards and attached emotions to the practice, this category is divided into the feeling of uniqueness / exclusivity and emotion of feeling good about oneself, when performing the practice.

A) The Feeling of Uniqueness / Exclusivity

A certain feeling of exclusivity and uniqueness could be seen a lot of times, when the participants were asked, if there were any specific situations, which would lead to an increase in the usage. Many participants connected the performance of the practice with spending times with friends, family and loved ones. They mainly used To Good To Go, in order to purchase larger amounts of food for a larger group of people. Participant F for example states:

> I mean, as I said before, I sometimes have to plan, when I want to use it because of the hours, when you have to go to pick it up and also to understand, where I even will be at that time. But for example, when we were using it in Denmark we were planning, for example to have brunches or a special dinner, so I think it depends if it is shared, in the sense that I am using it and I involve other people, then it is maybe an occasion.

Figure 16: Participant F, Appendix 8, p. 6

She connects the usage to the involvement of other people, which results in the experience of sharing food. Through the usage of the word *"(…) special dinner (…)"*

(Participant K) it becomes clear, that sharing the purchased food with other people is nothing usual and creates a sense of exclusivity.

When participant F explained that experience, the further acknowledged *"I would say more than friends but the people I live with … like food is so important in my country, I would say and we always share it, in a way and it's a good reason to share the food"* (Participant F). Here the reward comes from a strong sense of belonging, which is transported through the experience of using To Good To Go mainly, when the food was shared with loved ones. It becomes visible, that, according to Bourdieus' (1986) theory, certain habits do get shaped unconsciously through the cultural and societal context. This participant refers back to her Italian origin and how it is an important factor of her culture to share food with friends, which can be seen has an influence on how she uses and experiences the application To Good To Go.

Also, other participants referred to mostly using To Good To Go, when they shared food with loved ones, as seen in the example of participant K and E:

I would say in a month, where I used it the most, was five till six times the most but in average, it is more like two or three times. I used it more, when my parents came to visit, because then we were more people and it was also nicer to have different food instead of maybe the more routined cooking and it is still quite expensive in Denmark to go out and eat for people and we have a big living room so instead we could have sushi for everyone (…) It made it a bit more special without having the total expenses of going out and eat.

Figure 17: Participant K, Appendix 13, p. 3

> Yeah, for example, when there is a gathering with my friends for example, I suggest, if there are no other food options and nobody wants a specific food option, than we go for the TO GOOD TO GO food, because it always good food so yes.

Figure 18: Participant E, Appendix 7, p. 4

These statement hint to a certain feeling of exclusivity and uniqueness, that comes with the application. This emotion does not only seem to origin from the fact, that To Good To Go is mostly being used, when the food is shared with loved ones but is also being connected to the specific food item itself. Both participants explain that the usage offers a chance to break free from the normal cooking routine. As a result, a higher status is being applied to the purchase of the food through the app, in comparison to the food being prepared by the participants. This exquisite experience stems also from the type of food, which is being purchased through the application, since participant K says, the she mostly orders sushi, when her parent come to visit.

B) Feeling of Self-Fulfillment

The aspect of getting a good feeling about oneself can be explained by Warde's (2005) theory, that every act of consumption is being performed out of mere self-interest (Warde, 2005, p. 142). In regard to the question, how the usage of the app made her feel, participant G answered:

> Definitely good feelings, it makes me feel good about myself, since it makes me feel that I am doing something good for the world, as not to waste so much food and also I feel good about contributing to whatever restaurant is doing this, because than they also get a little bit out of it. And also, I get a little bit out of it, because I get food cheaper than I would have, so it gives me positive feelings all around.

Figure 29: Participant G, Appendix 9, p. 3

Within this example, it shines through that, since the mere purpose of the application is saving food waste, using in on an occasional basis gives this participant the sense of having contributed to the sustainable wellbeing of the planet. These feelings of doing something good for the environment are also being delivered, even though she uses the application only occasionally, since the has used the app *"Only like a couple of times, and I used it with some of my friends, who introduced me to the application and the concept, so I primarily used it when I was with her (…)"* (Participant G). The sense of self-fulfillment through engaging in the application as a social practice is surprisingly mostly being seen in participants with a lower user activity and a lower sustainable consciousness.

When talking about the rewards in the interviews, often the occasional users with a lower sustainable identity mentioned feelings of gratitude and self-fulfillment in terms of sustainable actions, whereas the interviewees with a higher sustainable identity felt mostly a low reward from engaging in the practice at all. This can be observed within this statement of participant J:

Yeah, I think there is definitely a sense of reward but it also depends on how conscious you are about being sustainable and if that is your primary driver, because to be honest, I don't know if that is my primary driver is, to say sustainability, because as I said, I just started using it again, since we have this quarantine. You know when I am in the shop, I also check out products, that are about to expire soon. I do this anyway. So it's a normal behavior to a certain extent, so its normalized and you know, when I get those sort of things, it's not like I am starting something new, so I am excited about the rewards, it's a big difference, if you get my point. Once a behavior is normalized you do not react the same to the reward. I do it anyway for the long term, so the reward is not that big, it is in my behavior.

Figure 20: Participant J, Appendix 12, p. 5

This interviewee explains that her sense of being rewarded through the engagement in sustainable practices has decreased, if not to say vanished completely, due to the normalized behavior of these practices. The emotional connection to the practice, that could be detected within many of the occasional users, seems to disappear as soon as a practice becomes normal within the everyday routines.

Another aspect, that differentiates the user with a higher sustainable consciousness from the users with a lower sustainable consciousness is the fact, that for the participates, who used the application merely for the aspect of saving money, the positive emotions were provoked through external aspect. Participant I states *"…sometimes, especially when you get like one of the To Good To Go's that is more rare, you think like, yes, score [laughs]"* (Participant I). This means, that the emotions origins in the food that she purchased. In contrast, the more sustainable conscious participants would feel rewarded, when they could share the practice with people, who have not used To Good To Go, as participant F states *"I don't think I have a feeling of being rewarded, when I use it but I have it, when I make other people download it [laughs]."* (Participant F). The received reward, therefore, is connected to the knowledge and engagement about sustainability in general.

6.2.2 Limitations

As much as there are factors, that encourage the usage, which ultimately can lead to a behavior change towards more sustainable food wasting habits, there are also aspects, which limit the usage. These could mainly be seen within the occasional users, which mainly used To Good To Go only a few times per month. Within the limitations, all factors are mentioned, that brought difficulties of any kind to the usage, whether they were of logistical or technical nature.

6.2.2.1 Pick-Up Times / Time Management

One of the mostly used reasons for people to not participate in the practice more often, were the general time management and the pick-up times of the food. They were

mentioned within every single interview. An example is given by Participant A, as he answered the question, when he mostly used the application:

> I mean, if my sleep schedule messed up (laughs) that it is very easy to think, I can just have dinner at 10:00. And especially when we don't have much to do. When for dinner it does not matter what time it is, it could be at 10:00 but we started using it in summer, because after the summer we started having internships and then To Good To Go is impossible to do.

Figure 21: Participant A, Appendix 4, p. 6

while Participant B mentioned:

> I would use the app, since then the food would be ready but again the time is the issue. I mean, if I am hungry at 6:00 or 7:00, then I can't wait until 11:00. So, then I would use another platform.

Figure 22: Participant B - Appendix 4, p. 7

Here, not only the late pick up times define a limitation, which keeps the participants from further engagement in the practice, but also the general time plays an important role. Also, participant E mentions, that *"… sometimes, I would use it twice a week, especially in the weekend."* (Participant E). It can be seen that time management and planning are of great importance, when the application To Good To Go is being used.

At the end of chapter 6.2.1.1, which explored the driver of saving money, the hypothesis has been created, whether or not the usage of the application only reflects the users current situation in life, since it has been heavily connected with the aspect of being a student. Through the answer of participant A, it can be seen, that the user behavior changes, as soon as also the living-situation changes, since he said, that the application would be impossible to use, when working a full-time job. This also gets underlined by

participant E, who mostly uses it on the weekend. One could argue, that a requirement for using the application on a committed level is a great amount of recreational time, since due to the explicit pick-up times a lot of planning is involved, when it comes to picking up the magic bags.

Other occasional participants have explained that the factor of time management and planning makes them use it in more spontaneous ways. Since they use the application more spontaneously, it can be seen, that the aspect of having to plan around the usage is being perceived as a discomfort to the daily routines. This gets described through a clash of the pick-up times with the general eating routines. Most interviewees explained that they do not use the application more often, because they did not want to have dinner at 11:00 in the evening, as it can be seen in the previous statement by participant A. When asked, if he used the app planned or more spontaneously, interviewer C stated:

I think both, in the beginning more planned so there was instances, when we planned like, okay lets go and pick up some food on that day and decided on how long the food lasted and then we picked up another one but by the end it was a bit more spontaneous. And then when it became spontaneous it was also less frequent and then it stopped.

Figure 23: Participant C, Appendix 5, p. 6

When participant C was asked for the reason of the decline, he directed his answer towards the pick-up hours of the restaurants:

(…) it was really convenient, because, you know it was cheap and you could just pick it up, go home and eat it, so that was quite nice. But also in connection with time, the timeslots, in which you have to pick up the food, is always almost in the afternoon or evening, so for instance, the buffet restaurants was at 10 in the evening, so in the end, we did not use that too much, because it became a bit late so when we tried to wake up early, it was also like a change of lifestyles. I don't know, we just decided, that it was a bit too much.

Figure 24: Participant C, Appendix 5, p. 6

Here, the feeling of discomfort, that is attached to the planning aspect of the usage, can be observed firsthand. The late pick-up times and the planning, that are necessary to use the app on a committed level, interfered with other habits, such as eating habits and sleep schedules. The usual eating times for dinner did not align with the pick-up times of the application, since most participants do not seem to be used to eating late. Especially the lifestyle change, that has been mentioned by participant C, hints to a clash between the pick-up times of the application and the usual eating routines. Pre-existing routines, which have been embodied throughout life are hindering the application to become an established part within the food consumption routines of the occasional participants. The discomfort of planning and changing the eating times are getting suppressed by the comfort of these existing routines. One could argue that the habits around eating times, as well as the concepts of breakfast, lunch and dinner are influences of culture and society. Even though there is another chapter on cultural influences on the usage, the pick-up times are defining a major limitation, wherefore they were presented within this category.

6.2.2.2 Skepticism towards the Businesses

A factor, that has been mentioned by several participants over the course of the interviews, has been a decrease in the user behavior due to a certain skepticism towards the business, who sell the leftover food. For example, participant G stated:

> I do however wonder, if after this application was made, whether or not some restaurant might deliberately made more to sell more, which is kind of not the point. It is counterproductive. I don't know if that is true but I do have my suspicions, that maybe some restaurants are taking advantage of it and then deliberately are making more food to sell more, because half the price is better than no price.

Figure 25: Participant G, Appendix 9, p. 8

When she was asked, if that would be a reason to not use To Good To Go anymore, she affirmed that question. This suspicion has also been expressed by participant K, as she stated:

> (…) I was thinking, it is weird that they have a fixed amount of what they sell every day and I understand, that they cannot say that every day, like oh today we have saved three breads or one but then it is a little suspicious.

Image 26: Participant K, Appendix 13, p. 10

The interviewees argue that the restaurants and grocery stores must know from experience, how much food they sell in an average day. As a result, they could only produce as much as needed, whereas food waste would not occur in the first place. This inhabits a certain skepticism against the businesses, who use the app to sell their food leftovers, with the suspicion of deliberately producing more food, than needed, just to get some extra money. Other reasons for the suspicion could stem from a sense that the restaurants and store are app only for marketing purposes, in order to attract more

customers through social responsibility. Nevertheless, one could argue that most restaurants, such as bakeries and grocery stores have an open display of their food items, which means the customer comes in there and picks the desired food item themselves. To keep the displayed food times appealing looking at any time of the day, food might still be produced, even though the store closes soon. It is interesting, that this skepticism can be detected in quite a few interviewees. Arguably, these interviewees might have a certain preconception toward the capitalization of sustainable practices out of pure self-interest from the restaurants. But as Warde (2005) stated, every aspect of consumption is mostly being performed for the mere personal interest (Warde, 2005, p. 142). It might go the same way for the restaurants.

6.2.2.3 The Interference with other Sustainable Practices

The interference of To Good To Go with other sustainable practices could only be witnessed within one interview. Participant K stated *"(…) I am trying to be as low waste as possible, when I do groceries and so on an in general I really challenge that in my life."* (Participant K). Furthermore, when she elaborated, what drew her back from using the application more often, she explained *"(…) I have kind of an issue to say, so I do save food waste but on the other hand I have these piece of plastic or worse in some places. They use polyester, which is really bad."* (Participant K). She explained, that in the future she wanted to ask the restaurants and stores, *"(…) to bring my own Tupperware, like doing To Good To Go once, seeing the size of the Tupperware they use and then bring my own."* (Participant K). Even though this participant only describes herself as an occasional user, a strong sustainable consciousness can be found, which manifests itself in her every doing. It challenges the practice of using the app, because she wants to life her life as plastic-free, as possible. Later in the interview, she explained *"If they really are trying to make an impact, than they either go the full way, so if we all go To Good To Go but in the end we have a ton of polyester and plastic I would rather have the people to waste the food in their own bin."* (Participant K). The sustainable action of wanting to limit her engagement with plastic and polyester, that stems from the packaging, overrules the actual practice of saving food. For participant K, the action of limiting her plastic

consumption, which is attached to the act of saving food, is stronger than wanting to use the app and actually safe food, since it ranks higher in her moral sense of the world. This example shows the difficulties in defining a certain user behavior, regarding the level of sustainable consciousness. This participant shows a great sense of responsibility in her sustainable practice, but still used the app occasionally, due to more important sustainable actions than saving food through To Good To Go.

6.2.3 Favorite Restaurants / Food

When the participants were asked if they had a favorite food option, a pattern became clear. Through statements such as *"… my top choice is sushi; you can never find sushi that cheap [laughs]. And I mostly buy that"* (Participant E) or *"When it's not bakeries or non-baked food it is usually sushi, that is a thing, that is the most favorite."* (Participant H), it becomes visible that the favorite food choices are sushi and bakery foods. Sushi has been mentioned in almost any interview as the top food priority, whereas food items from the bakery follow. It can be detected that sushi is being marked as the most favorite food for two reasons. The first reason is about the exclusive feeling, that is attached to the dish, since it is something, that is not being eaten every day.

> I used it more, when my parents came to visit, because then we were more people and it was also nicer to have different food instead of maybe the more routined cooking and it is still quite expensive in Denmark to go out and eat for people and we have a big living room so instead we could have sushi for everyone.

Figure 27: Participant K, Appendix 13, p. 3

For this interviewee sushi is being connected to the emotional bond with her friends and family, since it is mostly consumed in a shared way. But the furthermore, it is also perceived as an unusual experience, since it is labeled as expensive and not something ordinary.

The second reason for sushi being one of the most purchased food items is the following:

> Once we got like 5 bags of sausages, which we grilled in the park and it was super nice. But you also have different options, like more healthy options, as sushi.

Figure 28: Participant C, Appendix 5, p. 3

The purchase of the food inhabits also an attribute of health, since it describes as more healthy food by participant C. Especially the health factor behind the purchase can also be seen in this statement:

> (...) we mostly got food from the bakeries because they are the actual ones and we notices that they were giving away like real good quality food like good amounts and huge portions but after that we got on a diet and wanted to eat a little healthier. So, we stopped.

Figure 39: Participant H, Appendix 10, p. 2

Here, the preferred food was purchased and consumed anymore, since it has become connected with an unhealthy eating habit. It is interested to see, that the own self-interest of living a healthy lifestyle, outranks the desire to save food and be engaged in the practice for the greater good. In contrast, participant J uses the application on a committed level and explained, that she only purchases fruits and vegetables, as she claims:

> (...) my preference is towards vegetables and fruits because I eat a lot of that. Sometimes I give in to the temptations to buy bakery stuff, but I have only done that once (...)

Figure 30: Participant J, Appendix 12, p. 8

The importance of specific food items to the attribute of living a healthy diet becomes gets even more clear within this statement, since interviewee J describes the usage for bakery goods as a temptation, that she seldomly gives in, since food and vegetables are more healthy options. Even though all participants share the same interest in staying healthy, it is shown that a committed usage is still possible, when the application is not being used for unhealthy foods, which lay in the effort and choice of the individual performer.

6.2.4 Cultural and Societal Influences

This section of the analysis explores, in which form the performance of the practice is being influenced by culturally embedded factors. According to Bourdieu, these influences were manifested in the individual's reality in an unconscious way through the culture, in which that person was raised in and have themselves established through habits (Bourdieu, 1986, p. 48, 49). The aim of this paragraph is to find out, if and how these cultural habits have an influence on the performance behind using To Good To Go.
When participant F spoke about certain situations, in which she mostly uses the application, she explained, that she uses it, when she know what to eat but referred to usually using it, when the food is shared (see Participant F). When asked if she would use the application more, when being with friends, she replied:

> Yeah, I would say more than friends but the people I live with, maybe…
> like food is so important in my country, I would say and we always
> share it, in a way and it's a good reason to share the food.

Figure 31: Participant F, Appendix 8, p. 7

Through the wording, it seems like this participant attaches a sense of belonging, that goes further than only a friendship to the usage of the application. The aspect of sharing food seems to incorporate this sense of belonging, which the participant links back to her Italian origin. The cultural habits, therefore, have an influence on the performance of the

practice and in this case, shape the experience for this interviewee in the way she perceives the app, but also uses it.

This has also been the case with participant D, when she was asked, if she rather uses the application or goes to the store to purchase food. Here it is important to say, that the aspect of what impacts the choice of using the app or going to the store is going to be adapted at a later point in the analysis, but since it plays into the cultural influence, it is being brought up within this paragraph. Participant D answered:

> In China, as a Chinese we always say, I actually don't know the wording but when your senses are being joyed and your personal are being joyed, like for example what you put inside your mouth, the taste sense and we pay a lot of money just for food and for me this application just gives me one very good opinion about to not waste food, which is something we also say in China. We try to keep this for the generation and stop wasting food and then this application in China could be a very good idea, but I am not sure how it works, because it is a very different market. It can work here but probably not in China. And when it comes to change my food habits, I am not sure about that. I do like fresh food, I don't like frozen food and I still want to go to the supermarket, where I can buy fresh food. And the application actually told me also, that the food is very fresh, but I don't know that actually [laughs].

Figure 32: Participant D, Appendix 6, p. 6

Through this statement, it becomes clear that her cultural influences of paying a lot of money for good quality food, is being rooted back to her Chinese identity. But these cultural traits still shine through, even though the participant uses the app in context of the Danish culture. She furthermore explains that the app probably would not work in China with the same effect as it does in Europe, simply because the Chinese market is built in a completely different way and inhabits different cultural values.

In terms of changing her food habits, she says, that she is not sure, whether that is possible, since she prefers fresh food over frozen food. As a result, she rather goes to the supermarket, since *"… the application actually told me also, that the food is very fresh, but I don't know that actually [laughs]."* (Participant D). The consumption of good quality food is embedded through the cultural upbringing in China, which not only has an influence on preferring the supermarket over the application for fresh food. Moreover, it overrules the act of using the app as a sustainable practice because she mistrusts the freshness of the food, she would receive through To Good To Go.

Another example of cultural influences can be found in the behavior of participant K and evolves around the pick-up times. In the previous paragraphs of the analysis, it became clear, that most participants disliked the late eating times. In contrast, participant K states, that the late eating hours are preferred, due to her cultural upbringing:

Here in Denmark I don't mind it that much because I have a habit of Southern Europe of eating a bit later so here it does not really that problematic and continued with saying (…) if I have to pick up something at 08:30 I would say, that this is just perfect for dinner and a Dane would than maybe say, oh can I eat it tomorrow [laughs]

Figure 33: Participant K, Appendix 13, pp. 3, 4

She uses the app in Denmark more often in comparison to the city of Madrid in Spain, where she has lived before, since *"(…) they were not a lot of things in my neighborhood and Madrid is so big and in general it is very cheap to eat out."* (Participant K). It is simply culturally more common to eat out in the Spanish culture and since the food is cheaper, there was no need for her to use To Good To Go during her time in Madrid. Even though all participants have used the app at some point in the context of the Danish culture, since they have lived or are currently living in Denmark, it becomes clear, that cultural habits are having an impact on the user behavior. Even though the participant are aware of these cultural pattern, since they all are able to explain why the behave a certain way, it remains unsure, whether these patterns really can be consciously influenced, since they present a part of the individuals' culture and identity. Hypothetically speaking, if the cultural norms,

which are being brought upon a human being, incorporate unsustainable consumption patterns, one could argue, that it would be very difficult to change these patterns to more sustainable ones. The external circumstances of e.g. needing to save money might lead to short term change, but a complete breakage of cultural habits seems very difficult, since it would mean to break a part of the cultural identity.

6.2.5 To Good To Go vs. the Supermarket

This paragraph explores the behavior within the practice in connection to the contrary of shopping in the supermarket. In the interviews, the participants were asked, in which cases they use the app and when they do prefer shopping at the store. Furthermore, they stated their opinion on the hypothesis, whether the application could ever substitute for the physical act of going shopping. Participant K stated:

> (...) because with the application you don't really choose what you want. So, there is always be a moment, where you are like, oh I really want this. I like this part of surprise element for parts of my grocery shopping, but I don't want it to be for all that I buy, because of the decision. I used it, when I first arrived in Aalborg, I used To Good To Go for Superbrugsen, because you get a bag, that is gonna get thrown out and I stopped doing it, because I realized, that there was sometimes food that I didn't really want and that I could actually go to the supermarket and from the things, that were labeled [edit: as close to the expiration date] and choose myself what I wanted.

Figure 34: Participant K, Appendix 13, p. 9

Especially the surprise effect, which has been discussed before and has mostly been described as a positive thing, is in the long-term being perceived as a limitation. As soon as the participants were confronted with the idea of using the application committedly, it became clear that not knowing which food to get, hinders the usage on the long-term

basis. The statement of participant F highlights, that she enjoys the surprise element for some aspects of her food shopping duties, since it takes away decision of what to buy in the store. In contrast, all human beings all have different likes and tastes, when it comes to food consumption. Participant K explained that she stopped using the application within the stores, since sometimes the bag would contain food that she did not enjoy eating. Furthermore, she would then just go to the store and buy the desired food items herself. A great factor seems to evolve around having the choice to pick and consume the foods, that are liked the most.

Choice is also an important aspect in participant C's user experience with the application, as he explains the reason for why his usage has declined over time:

> But you also have different options, like more healthy options, as sushi. But even in the beginning sushi was extremely popular, so in order to get sushi, you had to know, that when the app would show the offer first because within basically minutes the offer would be gone. And as the app became sort of crowded, you knew directly that the sushi was gone and half of the options were gone, then the bakeries [edit. baked goods] and the cafes were gone, so in the end only the less attractive options remained.

Figure 35: Participant C, Appendix 5, p. 3

One could argue, that as more people become familiar with the app and start using it, as more food gets saved. This results in a higher sustainable consciousness within a society and could ultimately lead to a possible change in behavior in regard of food consumption and food waste in the households. But according to participant C, the decrease in the usage has been triggered by the fact, that the app became more popular. He explains that the advantage of using the app, stems from having the option to choose different restaurants. As a result, he was still able to choose the food, that he felt like eating at the moment, which comes down to selection and having the choice. As soon as this choice got limited, when the app became more popular and also more used by other people, he started to decrease his user activity, since his desired food options were more difficult to

purchase and often sold out. In the way he describes the unwanted food as *"(…) less attractive (…)" (Participant C)* it can be seen, that even within the sustainable practice of saving food, having the choice is still important. To be able pick more preferred food options over less preferred ones, indicates that the own self-interest and taste stands higher, than the actual will of saving food. In the supermarkets the customer has the choice of purchasing what is wanted and needed. Though the surprise factor of not knowing what to get, makes To Good To Go an experience in itself, it seems that having the choice to pick the desired food, overwrites these experiences in the long-term usage.

Another aspect, which lead to interviewees choosing the supermarket over the application has been, as mentioned before, the aspect of time management around the usage and the late pick-up times, in regard of the restaurants and stores. In general, it became clear, that most users did not believe that the app could ever substitute for going to the supermarket, due to the factor time, selection and the desires for specific food.

6.3 Behavior Change

6.3.1 Food Waste Behavior within the Application

This paragraph explores the food waste behavior of the interviewees within the performance of the practice behind the usage of To Good To Go. One of the questions asked, whether the participants have ever wasted food, which they retrieved through the application. This which would mean, that the food waste issue is only being transported from the stores to the home of the user, since the purchased food would not be consumed but thrown away. All interviewees, with one exception have affirmed that question. Participant D answered:

Actually, just once, I bought one pack of bread. I told you before in the interview, which is a lot. And it is a huge bag. And I not really can at that often bread and I had to throw them away, like half of the bag, because it went bad quite soon. And I just feel very bad about this, I bought it cheap and it is kind of like wasting a lot resources, because when you are making bread, it takes a lot of time and people also have put effort into this, so I stopped buying this, because of the bag.

Figure 36: Participant D, Appendix 6, p. 8

Here, the self-consciousness of buying leftovers and then having to throw them away in the private household lead to participant D not purchasing bread through the app anymore. Also many other interviewees explained, that they had to waste the purchased food due to the big amounts and short shelf-lives, since the food expired quicker, when purchased through the app. Out of all interviews, only participant F answered the question, whether or not, she did waste any food, which she had purchased through the app with *"No, never"* (Participant F). Furthermore, she explained that if there was food in the bag, that she did not enjoy *"(…) I was asking, hey do you like it, in the flat and then we always finished everything."* (Participant F). But also, the food item itself matters in this case, since most participants claim to have wasted bread more than any other food. Participant I answered the food waste question with *"Yeah, the bread because sometimes you just get too much bread and sometimes it is only these white breads and it gets bad super quickly (…)"* (Participant I) and one could argue that even though bread is being ordered a lot through the app, it is being seen as an unhealthy food and therefore being wasted the most within the private home. Overall, it can be seen that even though people do have a high sustainable consciousness though the collection of information and knowledge, within the actual performance of a sustainable practice, the saved food is still being wasted, due to the big portions or mostly one food item. One could bring this wasting behavior back to the issue, that has been discussed before in regard of choice and selection. Bread has been labeled as a regularly purchased item but at the same has also been described as unhealthy, and is therefore thrown away, due to the big portions of bread in the magic bags. The action of indulging into the application as a sustainable

practice seems fine, as long as this action does not overstep the personal comfort zone of limiting the choice to eat whatever is desired.

6.3.2 Behavior Change through Nudging

The nudging strategy has been describes in chapter 2.1 within this study and is also being used within the application To Good To Go (2.1 Sustainable Behavior Change). To recap, the concept of nudging is mostly being used within the process of policy creation. The strategy suggests, that the makers of such policies arrange the context of decision-making situation in such ways, that the outcome results in a certain, predictable behavior, which benefits the individual person but as well the general interest of society (Hansen et al., 2013, p. 4). Since the individual always can decide to choose the nudged expectation as an option, nudging is being described as an "(…) *effective way to influence citizens' behavior, without restricting freedom of choice."* (Hansen et al., 2013, p. 4). Within the application To Good To Go, nudging is being used, in order to archive a positive impact on the user's behavior in terms of food waste and to motivate the user to further engage in the practice. Every time, the user purchases a magic bag through the application a congratulation message gets shown on the screen.

The following example shows the message, which is being received for the first purchase, which is being done through To Good To Go:

A similar message appears after each purchase. The user is being adressed as a waste warrior and the applciation congratulates on every saved meal. Furthermore, it delivers a comparison of each meal to the prevention of CO2 and relates that number of saved CO2, to the energy profusion of a lightbulb. The message ends with the words *"Don't stop here…"* (Figure 1). Through the wording, the comparison and especially the encouragement to further use To Good To Go to save more food, the app clearly acts upon the users conscience, as it connects the usage with the feeling of having done something valuable for the planet. Through that feeling, the reward of self-fulfullment is being triggered, which is supposed to encourage the user to further perform the practise.

In the interviews, the participants were asked how they feel about this message and the responses resulted in mixed feedback.

Particpant A states *"It really forces the ideals upon you … it is slightly annoying, I know I did something good, you don't need to constantly tell me that I did something good."* (Participant A), whereas participant I stated, *"I think it is kind of cute, but I also feel it is a little silly but it's cute"* (Participant I).

Participant J compared the message with *"(…) a pat on the shoulder (…)"* (Participant J), whereas participant K stated:

I think that it is a little bit too much. I think it's good, that they acknowledge it but I feel like a child, whenever they tell me, yay you saved food, and I am like, come on, I don't need you to tell me to know. But it is one of the reasons why I use the app, but I think it is too much to be told all the time, a feel a bit like a child.

Figure 37: Participant K, Appendix 13, p. 4

Even though the participants gave mixed responses to the nudging aspect of the app, it did not seem to have any influence on their user behavior. None of the participants explained, that due to the received message, they have made a change in using the application more often or being more conscious about their personal food waste attitude within the household. As discussed before, the feeling of doing something important through engaging into a sustainable practice is present, which means, the participants know, that through the usage of To Good To Go, food is being saved. But since even the words of the congratulation-message and the nudge to continue had no noticeable impact on the participants behavior, one could argue, that therefore, other factors, such as the current occupation and income, cultural and societal habits, as well as personal wants and needs in case of food consumption are more predominant in having an impact on the user behavior, than the sheer will of wanting to do something good. And as soon as the external factors change, also the user behavior will change.

6.3.3 Habit Development through Repeated Performances

When it comes to the exploration of behavior change through a social practice, Warde (2005) argues, that repeated performances are a key point, since patterns of behavior can only be changed, when the practice is embodied within the performers sense of reality. In order to archive such, the practice must be performed out of habit (Warde, 2005, p. 140, 144). But is the development of a habit through repeated performance even archivable when the sustainable consciousness seems to be overruled by the personal self-interest and cultural habits?

The issue with the application To Good To Go seems to be the following. Participant B states about the application *"…It reminds you that it is there, and that you have the possibility to pick bags up, because sometimes you do forget, that is it is a possibility"* (Participant B) and in connection also participant K explains "… *whenever it comes to food and brunch or sushi and stuff like that, it is kind of more when I remember, that it exists and that it is an option in my life."* (Participant K). The participants have to remember, that the application exists and that they could use it. Both interviewees are using To Good To Go on an occasional level and participant K showed a high sustainable consciousness. However, since both participant state, that they sometimes forget about using the app, an unconscious performance of the practice seems to be impossible. The limitations of rather buying food in the supermarket due to more comfort in selection and time management, seem to prevent a routinized performance.

However, participant K stated as well, that when it comes to especially bakery goods, a habit has indeed developed. She uses To Good To Go whenever she is in the need for bread and bakery goods:

> At the moment I mostly go with the application and what I do is, I try to use the application and depending on what they give me, I also buy stuff there because I really like the bakery, I am fully French [laughs].

Figure 38: Participant K, Appendix 13, p. 8

A habitualized behavior can there be detected after all since this interviewee chains the usage of the app to her everyday shopping routine. She explains, that whenever she needs goods from the bakery, she uses the application To Good To Go.

The same habit development can also be detected in participant J:

(…) I check it every day, so I also started to kind of notice the patterns in which day they post on my selected stores, so what is the timeframe and then I go on the app to see if they have something that day (…) there are different times and in the morning. I check random and some days I just look at this interval of times, where I know that they post it on To Goo To Go (…)

Interviewee J was able to notice the patterns, in which her selected stores would post the offers on magic bags within the application. Furthermore, after she recognized the uploading pattern, she was able to go on the application on a daily basis and see, if they had something posted on that day. This proves, that a habit development through routinized behavior within the app is possible. But at the same time, it is necessary to acknowledge, that the habit development does not happen only through a rational choice but moreover, is dependent, as mentioned before, on the external circumstances. Participant J connects her strong user activity to the recreational time, she has due to the COVID-19 related lockdowns:

And I started using it again, since I am staying at home during the quarantine, so I used to use it when I lived in Aalborg and then I moved to Copenhagen and I didn't use it and since I am home and I have to cook a lot and also get more creative with what I cook (…) it is actually a little bit of a weird timing but it is such a cool concept, because it has the sustainable purpose but also for me personally because I get this little excitement with groceries, which is a big weird [laughs] but it works.

Figure 40: Participant J, Appendix 12, p. 1

In the same sentence, the interviewee says, *"I think my behavior would change once I go back to work."* (Participant J) and continues with the explanation " (…) *a lot of the times, the pick-up times are at 01:00, 02:00 or 04:00 o'clock and then I am at work and can't pick up a bag from To Good To Go"* (Participant J). The development of habit through routinized behavior does not only depend on the level of sustainable consciousness and general interest within the individual user but also on how much time is being available to incorporate the app into the daily routines. It can be said, that even though the user makes the rational choice to engage in the application with the desire to save food, this choice is being unconsciously limited drastically by the factor of recreational time. For occasional users and committed users with a higher or lower sustainable consciousness, the act of having to plan out the usage and finding the time in the average day is the most hindering, when it comes to developing a routine in the user behavior, that could ultimately be turn into a habit. Although, habit development through a high commitment to the practice is possible, to maintain that routine in the long term, which would turn it into a habit seems impossible.

6.3.4 Sustainable Behavior Change through Habit Development

In his approach on pro-environmental behavior change, Hargreaves (2011) suggests, that a change of behavior can be archived, if certain elements, which were defined as

understanding, engagement, of the unsustainable practices are consciously being challenged and broken. Afterwards, the engagement in a more sustainable practice can substitute the unsustainable one. This happens from the inside through the resistance of current routines and conventions but also the outside, as individuals communicate their personal performance of the practice to other social actors (Hargreaves, 2011, p. 83, 84). Hargreaves (2011) emphasizes, that the focus goes from the individual choices and behavior towards the entirety of influences on the practice and on how ultimately unsustainable behavior can be changed through repeated performances and the resistance of old practices. In case of the application this can be seen within the examples of participants J and K. The last paragraph emphasized on the developments of habit within the usage of To Good To Go, whereas it became clear, that habit can be developed, if the external circumstances such as time allows the user to perform the practice on a repeated level. Both participant claim, that through repetitions in the usage, a certain habit has developed in how the engage in the practice. In the last paragraph, the following statement by participant K and J has been used, in order to explain, how habit development was implemented through the usage:

> At the moment I mostly go with the application and what I do is, I try to use the application and depending on what they give me, I also buy stuff there because I really like the bakery, I am fully French [laughs].

Figure 41: Participant K, Appendix 13, p. 8

In this example, the application is not being used for all of the daily shopping trips but covers the purchase of bread. Through the incorporation of the application into the usual shopping routine, a habit has been created, whereas firstly a bag is being bought through To Good To Go. If the desired food items cannot be found in that bag, they are being purchased separately. Participant K follows the same principle, whereas she incorporates the app not only in parts of her shopping but moreover, for all her food purchases:

> (...) when you buy food and vegetables, you usually get a lot of the items for usage anyway so for example, the last time I bought tomatoes, salad and stuff so I buy those things anyway (...) Usually I make a list with the items, that I know, that I will need anyway on my phone and before going, I check the application to see if there are some things, that I could get and sometimes I actually just have a bag to pick up, I just go there and pick it up and get the rest of what I need from the shopping. And then I check what is in the bag, to see if there is anything missing of what I actually need and then get the rest. So, I prefer to do my groceries at the same time when I pick up a bag.

Figure 42: Participant J, Appendix 12, p. 9 - 10

In this example, the usage of To Good To Go is fully embodied in the daily shopping routine, whereas the needed groceries are written down and if they cannot be found in the magic bag, they are being purchased in the supermarket. Both statements underline the fact, that within the right circumstances, it is possible to incorporate the usage of To Good To Go as a sustainable practice itself inside the everyday shopping routine. And through the habitualized usage and incorporation in the daily routines, food that would have been wasted is being saved for the own consumption. The mere avoidance of the application would lead to an increase in food waste by the restaurants, which means that Hargreaves (2011) approach on pro-environmental behavior change works, when applied on the usage of To Good To under the right circumstances.

None of the participants, who did not already have a high sustainable consciousness, said, that the occasional usage had either an influence on their behavior within the application, nor on how they handled food waste inside their households. This means, that the external factors, such as time and occupation but also the internal factors, such as the general interest to help within sustainable causes need to be fulfilled to a specific degree, in order to turn the practice into a habit and furthermore, substitute unsustainable practices.

The next chapter is going to provide a discussion on the analysis in consideration of the research aim.

7. Discussion

This chapter discusses the findings in the interviews and the analyzed data in the broader context of sustainable food consumption and a change in behavior through the engagement in the practice of using To Good To Go as a sustainable practice.

Even though the analysis has been divided into the categories of the characteristics of the practice, the performance of the practice and the sustainable behavior change, due to the interconnection of all three aspects, this chapter will discuss the practice in its entirety. This study aims at identifying possible ways, in which the usage of the application To Good To Go encourages a sustainable behavior change within the aspect of food consumption through the application of social practice theory.

As also stated in the literature review of this project, the ongoing argument on sustainable behavior change emphasizes on, whether behavior can be changed through a rational choice made by each person individually or if, in fact, a permanent change made individually is impossible, since every act of consumption only reflects the individuals current standpoint in society. And when these standpoint changes, also the behavioral patterns change. Through the usage of Warde (2005) as the main framework of theory, this study explored all influential factors on the usage of To Good To Go, whereas the discussion will start with the association and meanings, that individuals had to the practice.

The findings suggest, that when it comes to the associations with the performance of the practice, almost all participants labeled the usage as a sustainable action, since it serves the purpose of fighting food waste. At this point is essential to mention again, that one of the biggest internal influences on the practice is the pre-existing sustainable identity, as well as knowledge and information about sustainable causes. This green identity dictates, how often the application is being used but also in which ways magic bags are being purchased. However, when it comes to the association, also people with a low sustainable consciousness labelled the practice as a sustainable one. The aspect of understanding

the practice, therefore, matches consistently with its purpose. But here it gets interesting, since in the case of To Good To Go, the mere understanding that a practice is sustainable is not a motivational factor for people to engage in that practice. In fact, even though all participant understood, that through using the application they do something good for the planet, most dependent their user behavior on other factors, such as the pure choice of wanting to engage in sustainable actions.

This gets underlined by the fact, that the nudging strategy, which was used within the application to encourage the user to further continue with performing the practice, had no visible effect on the participants user behavior and attitude towards the usage. The screen with the congratulations message has been noticed by the participants, which means that the nudge has been perceived but it had no influence on the behavior within the application. In the literature review of this study, the scholars Kennedy, Krohen and Krogman (2015) have been cited, since they believe, that nudging has only a limited effect on an individual behavior, since consumption patterns are driven by the individuals current position in society, rather than through a rational choice (Kennedy et al., 2015, p. 4; chapter 2.1 Sustainable Behavior Change). This also gets reflected through the actions of users within the application To Good To Go. The main aspects, which influenced the usage were identified as saving money, having choice and selection in picking the desired food, emotions, time, and habit. All these aspects will further be discussed within the next paragraphs.

7.1 Saving Money and Choice

The saving of money has been mentioned throughout all interviews and can be marked as one of the most important aspects, that motivates individuals to participate in the practice. Moreover, the purchase of cheaper food through the app and its connection to the student life, shows that most participants were motivated through the external circumstances of having to live on a budget, due to their current life-circumstances. The mere aspect of saving money can be seen as the main motivator within that specific period of time, which made the participants engage in the practice, since it fulfilled their current

self-interest. In fact, all participants explained, that they would use the app less or stop completely, if the food would not be cheaper (Image 12, 13, 14). One could argue that the cheap food is justified, since it contains mostly leftovers, which might have a different quality, as if the food would have been bought fresh. But since not even participants with a high sustainable consciousness would use the application, if the aspect of saving money was not relevant anymore, which indicates that even though the inner desire and choice to engage in sustainable actions is there, the actual engagement in the usage is mostly controlled by the current external circumstances. The rational choice seems to be abstinent when it comes to the user, since factors, such as the desire to save money seems to overrule the desire to save food. This can also be seen within this statement made by participant G:

> What attracted me the most about the concept is, that food is not wasted. And I think it is just a bonus, that you get the food a little bit cheaper, I think you would also have to get some sort of discount, when the concept if, you don't know what you get. You just can't pick and choose, so I think that is fair enough to say, that you get in a little bit cheaper because you get whatever is left.

Figure 43: Participant G, Appendix 9, p. 3

Here, a contradictory can be detected. Even though the participant claims, that her primary reason to engage in the practice is to save food waste and describing the cheaper food as *"(…) just a bonus (…)"* (Participant G), she justifies the aspect of saving money, since her options of having a choice of which food items to pick, are limited. When it comes to the usage of To Good To Go, where the person cannot choose the desired food item, since they are pre-packed. It almost seems that the aspect of saving money functions as a compensator for having to limit the freedom of choice in being able to freely pick the desired food. At the same time, the participants still feel a sense of gratification of being a good person, since they engagement in a sustainable practice. If To Good To Go would only be used for the sake of the good cause behind the action, once could argue, that the purchase of pre-packed bags and not having the choice of getting the desired food-items

should not matter. Here the conflict arises between the act of wanting to engage in the usage as a sustainable practice and save food versus the own personal wants and needs.

The starting point for international trade of food can be related to the time, when grain has been exported from Poland, the Ukraine and the Baltic States by ship to Western Europe. Since the 1950s, the import and export of food increased rapidly (Wiegert, 1991, p. 78). Within the year of 2018, the agricultural-food trade reached a value of 116 billion of imports and 138 billion of exports. Hereby, the European Union, Brazil, the United States and Canada have been the most countries, concerning food export, whereas Canada, China, Japan, the United States and the European Union also label the countries with the most imported foods (European Commission, 2019, p. 2). From all over the world are available within every time of the year and can easily be purchase only by a walk to the local supermarket. Of course, some goods are more expensive than others but in general, the consumers have the option to choose the desired food item by themselves and purchase them at the register. And the aspect of being able to purchase food, whenever it is needed and desired, has been incorporated into society as a choice and a habit of comfort.

The results of the study show, that as soon people are challenged with the idea of giving up that comfort of being able to choose the desired food, even if it happens through the knowledge, that they simultaneously engage in a sustainable practice to help the environment, people expect a certain service in return. Of course, the sustainable consciousness and the desire to actually help, influence how often the application is being used. But as Warde (2005) explained, the act of consumption within a social practice is being performer merely for the own self-interest (Warde, 2005, p. 140). And even though sustainable practices deliver a sense of gratification in being a good person, the engagement only for the pure greater good seem impossible.

7.2 Feelings and Emotions

Another aspect, that falls under the category of the self-interest is the reward, that is being perceived through the engagement in the application and furthermore discusses the connected feelings and emotions. Many of the occasional users have described the usages as a special and unique experience, since it is connected with the action of sharing

food with friends and loved ones (Figure 17, 18). Here, the user activity and the endurance of that feeling seem to be connected, since the committed user did not have this certain sense of reward (Figure 20). For the participants with a very high user activity, the usage of the application itself has become a habit, which, within the context of social practice theory, is necessary to change a behavior. But in contrast, it is exactly this feeling of uniqueness, that stems from the rare occasion, the application is being used, which acts as a driver to continue the engagement in the practice. This means, that the reward originates in the occasional usage. One could argue that this special emotion might vanish over time, when the practice would be performed more often, which could eventually lead to a decline in the user activity up to a complete stagnation. The occasional user, therefore, might not be able to change a behavior towards more sustainable patterns in the long term. But the emotional aspect behind the rare occasions, To Good To Go is being used, keeps the individual connected to the performance of the practice. The app might never be fully used on a committed level, but the user behavior is being kept alive in the long term, which is more important, that not engaging in the sustainable practice at all.

7.3 Time and Habit

The last aspects, I would like to bring up within this chapter are time and habit. Since they go together in the way they influence the usage, they are both being discussed within the same paragraph. The late pick-up times have been mentioned throughout every interview and could be identified as the main reason, why people would not engage further in the application. All users explained that they would interfere with their usual eating routines, which showed to have a great influence on how the application is being used. These eating habits are so deeply rooted within the individuals identity, that the subsequent life-style change, that it would take, in order to fully perform the practice of using To Good To Go on a committed level, is a physical impossibility (Figure 24). This gets reflected in the planning, which is involved in navigating the usage around the western European eating habits. Even the committed participants stated, that they only use the application more actively at the current moment in time, because due to COVID-19 lockdowns, generally more free time is available, that allows to fully engage in the practice (Figure 40). However,

this could change as soon as the lockdown is over and the usual every day routines dominate the usage of To Good To Go. But also, the influence of cultural habits can be detected within the interview, according to the quality of the food, the pick-up times, and the sharing culture, combined with food consumption. An influence on the practice can be detected in the case of Participant D, since due to her Chinese origins, she rather shops in the supermarket for food with a good quality, since using the application, as she connects the usage with poor food quality. To consciously break these cultural embedded behaviors, would result in trying to change ones' cultural identity, which can be seen as nearly impossible (Figure 32).

This study evolved around the usage of To Good To Go as a sustainable social practice, whereas the research question focused on possible way, in which the usage of the app encourages a change behavior in terms sustainable food consumption through the appliance of social practice theory. It can be stated, that through repetitive performances of using the application, certain habits are being formed. Moreover, under the right circumstances, these developments of behavior can have an influence on the aspect of food consumption. Within this study it shined through, that the application might never fully substitute the act of going shopping in the supermarkets, since the aspect of being able to choose according to personal taste and desire is too dominant. However, through the development of patterns and habits in the user behavior, certain aspects of the everyday shopping routines are replaced by the application (Figure 41,42). This results in a sustainable change, since through the incorporation of the app in the everyday shopping routines, food is being saved, which is the ultimate goal of the practice itself. But again, presupposing for that level of engagement is the sustainable consciousness, whereas the aspect of wanting to do something good must be embedded so deep in one's identity, that habits, such as the daily shopping routines in the supermarket are overthought and consciously changed. Nevertheless, this sustainable identity is not being begotten through the mere engagement in the usage of To Good To Go as a social practice. It is mostly the reason, why some individuals are more likely to change their behavior than others and it stems from a factor, that lays outside of the engagement in the practice itself. Cultural and societal habits and practices, as well as the current social circumstances and the factor of self-interest are more influential on how easily food consumption behavior changes, when

it comes to the usage of To Good Too Go, than the sheer rational choice to change ones' behavior.

The next passage will provide an insight on further research-possibilities, which explore the topic of behavior change within social practices from different angles.

7.1 Further Research

The discussion has provided findings, which show that the application To Good To Go can lead to a change in behavior towards more sustainable food consumption patterns through incorporating the app into the everyday life. But these change in behavior is dependent on factors such as recreational time and current life situation, as well as general knowledge and interest in sustainable issues. Likewise, is the chance in changing a behavior by using the application determined by the cultural and societal influences, which have been embodied through upbringing and education into one's perception of the world. This study explored the practice behind the usage of To Good To Go amongst young people with different cultural upbringings in the country of Denmark, within the age between 20 and 32. It can be established, that the different cultural influences not only determine how the application is being used but also, if and how easily behavior can be changed, since they unconsciously dictate, how sustainable food consumption and the world is being experienced. One aspect for further research could be extending the age of the research participants towards elderly people. This would offer information on, cultural and societal influences only effect younger participants, or, as time progresses, the cultural identities could possibly be overwritten by habit and lead to a permanent change in behavior.

In order to explore, whether behavior through the usage of the application could be changes permanently, another approach could be conduction as a comparative study, which the user behavior over a longer period of time. It would be necessary, that a consistent number of magic bags must be purchased through To Good To Go by each participant on a weekly basis. The equal number of purchases per week would simulate a committed user activity. Interviews about the individual food consumption behavior and perception of food waste are being implemented before the application is being used for the first time and after the last time of usage. The comparison of the interview results could

provide more information on whether or not a consistent usage with a high user activity could influence the participants perception of food waste. Furthermore, it could highlight if their personal food consumption habits have been influenced through the usage. Moreover, after the period of the practices has been officially ended, a follow up study could explore, if the change of behavior towards more sustainable food consumption habits has been maintained over time or if the participants have gone back to their usual consumption routines.

Further research could also be conducted on the sites of the businesses and restaurants, who use the application to sell their leftover food. Many participants have shown a certain level of skepticism towards the businesses and questioned their behavior of using To Good To Go for creating more revenue. However, the gained data would be highly questionable, since no company would openly admit, to only use the app for their own purposes.

The following section of the project will utilize the findings of the discussion to the conclusion of this project.

8. Conclusion

Through the findings, it can be seen, that even if interests in sustainable issues existing within a person's mindset, two main influences could be detected on how the application is being used and if a change in behavior is achievable. On one side, external circumstance, such as recreational time, income, and occupation direct in a great way, how the practice is being performed. If these factors change, also the user activity in engaging in the sustainable practice changes. The other side defines this performance through cultural habits, which have been attached to each individual consumer by the culture and society, in which they have been raised in. The theory of Bourdieu (1986) claims that the perception and performance of social practices only depend on cultural and societal habits (Bourdieu, 1986, p. 49). Bourdieu's (1986) argumentation is therefore only partially true in the context of this study. Agreeable, the cultural and societal habits are deeply internalized within one's nature and identity and define, how the world and

social practices are being perceived. But these cultural ways of doing things are not the only factor, that influence, how a person practices and perceives certain tasks. This study shows, that when it comes to performing the practice behind the usage of To Good To Go as a sustainable practice, also the external influences, such as money, income and occupation but also the available free time and the option of having a choice have an immense impact and how active this sustainable practice is being performed. Warde (2005), explained, that certain internal and external factors in interconnection, have an impact on the individuals' perception of reality and therefore also on how sustainable practices are beings perceived (Warde, 2005, p. 149). These factors are not only being defined by a person's individual cultural origin or their personal likes and tastes, but the also reflect the current moment within society. And this moment changes over time, and so do the external influences. Even though the cultural habits stay the same, as time passes, through the change of jobs and social status, income and the general walk through life, the perception on the world change through the knowledge we gain and the people we communicate with. The circumstances change throughout life and so does the perception of the world. And this change can also be detected, when it comes to the reasons, why people engage in the application To Good To Go as a sustainable practice.

In the literature review an essential question has been addressed by Tom Hargreaves (2011). The author stated, that one of the most ongoing discussions is concerned with the question, whether sustainable behavioral patterns can be changed individually or only be archived through the rearrangement of the entire believe-system within a society (Hargreaves, 2011, p. 80). When it comes to the change in behavior by each person individually, the external life circumstances have to be considered. Not every person in the same societal context has the same amount of free time due to differences in occupations, since a lot of planning is involved in e.g. performing the practice of using To Good To Go committedly. Moreover, each individual life-circumstances are different. The achievement of an individual sustainable behavior change does not only concern the individual interests and life-plans of people within one society but also in which social class people are born into and how easily access to knowledge can be obtained.

When it comes to the collective change of behavior, it is important to note, that most scholars propose the idea of change upon a society. But even though people live in the same societal room, they still might have different cultural morals and values, due to many different cultural backgrounds. This study has been incorporated in the country of Denmark, which could suggest, that mostly consumers with a Danish cultural background participate in this study. But this is not the case, since due to the possibilities of living, studying, and working in other countries, a high cultural diversity gets created within the same societal context of living in Denmark. This means, that each person individually brings their own culturally shaped practices and perception of things into the same societal context. A collective change of societal values could then maybe accommodate, when a society is being defined as one cultural entity. But this change would not consider the cultural perceptions of other individuals, living in that same society. The findings of this study show, that the origin of ones' cultural identity and the connected cultural habits are still predominant in the performance of a sustainable practice.

Every person on this planet is different and everybody performs social practice within their individual perception of the world. The creation of a global and mutual understanding about unsustainable practices, could be great starting point in creating a global exchange about practices and how to change them towards a more sustainable behavior. But it is necessary, that this exchange is being held with a certain sensitivity, which underlines that human beings are not the same. It should be based on an understanding, the human perception of reality is not equal, according to one set standard but differs from person to person and culture to culture. The development of new policies towards more sustainable actions should not come from one place, which pushes it's change upon people, with the expectation that everybody sees things, in the same way. Multicultural communication and exchange about the sustainable issues of today and the sharing of knowledge and information between all social actors could make the sustainable change of tomorrow.

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