



**“The influence of self-image and social acceptance on
consumer behavior towards meat and meat
substitutes.”**

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Abstract

This master thesis aims to explore the causal relationships and effects between individuals' self-image, social acceptance, and their choice of meat products. Previous research, for example by Rozin, Verplanken or Ruby has shown that individuals with different self-images may choose different products based on their desires, while the level of social acceptance also plays a role in determining product selection. This study aims to further investigate these relationships by conducting a survey on this topic in which the survey participants were manipulated into a mindset of a self-image of efficient/indulgent and into a mindset of the need or non-need for social acceptance. The results showed that self-image and social acceptance do not directly impact overall satisfaction, purchase intention, recommendation intention, utilitarian product perception, or hedonic product perception. However, the type of product (meat or meat substitute) does significantly influence health perception and sustainability perception. In both perceptions were also significant interaction effects, which shows that the three independent variables influence consumer behavior in those perceptions together.

This study contributes to the understanding of how self-image, social acceptance, and product type influence the preferences and perceptions of consumers. The findings provide valuable information for food industry marketers to develop effective marketing strategies, innovate products, and promote healthier and more sustainable options.

Keywords: Self-image, Social Acceptance, Meat Consumption, Meat Substitutes, Consumer Behavior

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Abstract

Esta tese de mestrado, tem como objectivo explorar as relações causais e os efeitos entre a auto-imagem dos indivíduos, a aceitação social e a sua escolha de produtos à base de carne. Investigações anteriores, por exemplo, de Rozin, Verplanken ou Ruby, mostraram que indivíduos com diferentes auto-imagens podem escolher produtos diferentes com base nos seus desejos, enquanto o nível de aceitação social também desempenha um papel na determinação da selecção de produtos. O presente estudo pretende aprofundar estas relações através da realização de um inquérito sobre este tema, no qual os participantes no inquérito foram manipulados para uma mentalidade de auto-imagem de eficiência/indulgência e para uma mentalidade de necessidade ou não necessidade de aceitação social. Os resultados mostraram que a auto-imagem e a aceitação social não têm impacto directo na satisfação geral, na intenção de compra, na intenção de recomendação, na percepção utilitária do produto ou na percepção hedónica do produto. No entanto, o tipo de produto (carne ou substituto de carne) influencia significativamente a percepção de saúde e a percepção de sustentabilidade. Em ambas as percepções também houve efeitos de interacção significativos, o que mostra que as três variáveis independentes influenciam o comportamento do consumidor nessas percepções em conjunto.

Este estudo contribui para a compreensão de como a auto-imagem, a aceitação social e o tipo de produto influenciam as preferências e percepções dos consumidores. Os resultados fornecem informações valiosas para os profissionais de marketing da indústria alimentar desenvolverem estratégias de marketing eficazes, inovarem os produtos e promoverem opções mais saudáveis e sustentáveis.

Keywords: Auto-imagem, Aceitação social, Consumo de carne, Substitutos de carne, Comportamento do consumidor

Título: "A influência da auto-imagem e da aceitação social no comportamento do consumidor em relação à carne e seus substitutos"

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Introduction and Relevance

Meat products have been a staple in many diets for centuries. Recently there has been a transition toward plant-based diets and meat substitutes because of concerns about the environmental impact of meat production, the health risks associated with consuming excessive amounts of meat, and the rising opinion of better animal welfare. In general, we can see a notable shift in consumer preferences toward plant-based meat alternatives, which is primarily driven by concerns over animal welfare, environmental sustainability, and health considerations. Especially younger generations, particularly millennials and Generation Z, are leading this demand for meat substitutes. (Markets and Markets, 2020) According to research, attitudes toward meat consumption and meat substitutes are influenced by several factors, including health concerns, ethical and moral considerations, culinary preferences, and environmental concerns (Ruby, 2012). It was also found out that for example, environmentally conscious individuals are more likely to choose plant-based alternatives since it is more sustainable than most forms of animal farming. Vegetarians would also be more likely to look for meat substitutes for protein. (Hoek et al. 2011) Overall, they also found out that the consumer acceptance of substitutes is heavily influenced by the type of meat substitute and consumers' food neophobia attitudes (Szenderák et al., 2022). Meat substitutes are gaining traction in the culinary world and food service industry. Many supermarkets and restaurants are incorporating plant-based options into their assortment to cater to the rising demand for meat alternatives. This trend is likely to continue as more consumers embrace flexitarian or plant-forward diets (Curtain & Grafenauer, 2019). The global meat substitute market has been experiencing significant growth in recent years. The global meat substitutes market is projected to reach a market size of \$4.04 billion by 2027, according to Markets and Markets (2020). Also, plant-based meat substitutes are becoming increasingly realistic and comparable to animal-derived meats. This is because the meat substitute market is witnessing technological advancements and innovations. Companies are investing in research and development to create products that closely mimic the taste, texture, and appearance of conventional meat (Szenderák et al., 2022).

Nevertheless, flavor remains an important factor in determining consumer preferences for meat products or substitutes. According to research (Font-i-Furnols & Guerrero, 2014), the flavor is the most influential factor in consumer decisions in food choices and thus also in the meat

industry. Consequently, the flavor and texture of meat substitutes play a significant role in their acceptability and adoption by consumers. Additionally, social norms and cultural values impact the acceptability of meat alternatives. A study conducted in the United States found that consumers who identified as meat reducers or flexitarians, i.e., those who reduce their meat consumption without eliminating it, were more likely to view meat substitutes as socially acceptable (Rosenfeld, 2018). The norms governing food selection and eating behavior vary considerably between cultures (Sobal et al., 2014). So, consumers who identify as traditional meat eaters may be less likely to embrace meat substitutes because of their social environment and thus their pressure to be socially accepted. (Rosenfeld, 2018). Meat substitutes are a popular topic in the food industry due to the rise of plant-based diets and environmental concerns about meat production. Taste, health, ethics, morality, social norms, and cultural values affect consumer attitudes and preferences toward meat substitutes. Manufacturers' ability to meet consumers' diverse needs will continue to drive meat substitute adoption. In society, it has also been noticed that some consumer behaviors are particularly influenced by social pressure or different self-images, which will be examined in more detail in the following.

1. Literature Review

To understand consumer behavior in the current evolving meat industry characterized by meat substitutes mainly in form of plant-based products it's essential to identify key drivers influencing customer purchases. Research points out that self-image and social acceptability play a important role in decisions concerning consuming specific types of meats (Hoek et al. 2011). This literature review aims to explore how both factors influence consumers' preferences for traditional meats vis a vis meat substitutes and what impact it has on its rapidly evolving industry.

1.1. Self-image

Self-image is a psychological guide encompassing attitudes beliefs tied with how individuals perceive themselves that emerges through experiences shaped by personality traits or cultural norms (Leary, 2011). These elements interact and shape how individuals perceive themselves, which, in turn, can influence their behaviors, choices, and preferences, including their attitudes toward meat products. Prior research has demonstrated that a person's self-image can significantly affect their behavior, including their purchasing decisions (Hosany & Martin, 2012). Recent studies have demonstrated that an individual's self-image plays an essential role in their consumption behavior. (Rozin, et. al., 2003). People with different self-images may have different dietary patterns and food preferences, which should be discussed in the following paragraphs.

The literature has examined the self-image of individuals who enjoy having pleasure as a particular aspect of self-image. People that see themselves as fun-loving or indulgent prioritize enjoyment and satisfaction in their lives and frequently seek out novel and thrilling experiences. Fun-loving individuals are more likely to engage in impulsive purchases and less likely to consider practical or utilitarian factors when making purchasing decisions, according to research (Verplanken et al., 2005).

People who see themselves as practical and efficient, on the other hand, emphasize practicality, functionality, and cost-effectiveness. Efficient individuals prioritize utility and value in their lives over enjoyment and delight, and they are more likely to consider practical or utilitarian factors when making purchasing decisions. Research has shown that those who think of themselves as efficient typically choose functional products that meet their practical needs at an affordable price instead of pleasurable or indulgent ones (O'Cass & Frost 2002).). In contrast fun loving people usually prefer pleasurable or indulgent products over practical ones. Vice versa for efficient people. (Dhar & Wertenbroch 2000; Lowe et al., 2009).

According to studies on personality traits such as self-esteem and openness to experience linked with an individual's self-image (Shavelson et al., 1976) having positive self-image translates into ethical consumption behavior and brand loyalty.

Meanwhile people with a negative self-image may develop impulse buying tendencies (Toth, 2014). The literature indicates that a person's self-image plays an extensive role in shaping their consumer behavior. To be effective in catering to various consumer groups' needs and preferences marketers must consider the correlation between them regarding designing marketing strategies successfully.

Overall, the literature on self-image indicates that a person's self-image can have a substantial effect on their consumer behavior. Understanding the role of self-image in consumer behavior can help marketers and policymakers create effective marketing strategies and policies that satisfy the needs and preferences of various consumer segments. In addition to self-image, social acceptability has also been identified as a major determinant of food consumption behavior. (Brown & Reingen, 1987; Richins, 1995)

1.2. Self-Image and Meat Consumption

Furthermore, researchers have identified social acceptability as another crucial determinant of food consumption behavior which they believe creates new opportunities for research in future studies (Brown & Reingen 1987; Richins, 1995). Recent research has revealed a link between our concerns about our own health and the food choices we make. Additionally, it appears that individuals who view themselves as environmentally conscious are more likely to choose meat alternatives rather than actual meat (Ruby, 2012). Such findings hint at how self-image affects our decisions about food.

Studies indicate that one's self-image plays an important part in influencing decisions pertaining to livestock products. Also, Ruby et al. (2013) noticed that people who considered themselves lovers of meat and had a hedonistic self image were more liable to consume meat products than others who identified as vegetarians and had a moral self image. These insights suggest that

individuals with an indulgent self image lean towards consuming meat whereas those with practical self images prioritize animal welfare, environmental sustainability, and health benefits overindulgence. It is therefore reasonable to assume that those with practical self images may be more inclined towards testing out meat substitutes.

1.3. Social Acceptance

The need for social acceptance is a key area of human behavior which has been deeply scrutinized in the consumer behavior and psychology research fields alike. Literature indicates that consumers tend to follow their reference groups' social norms so they are not excluded; this can have serious implications for their purchasing behaviors (Bearden et al., 1989). Further studies suggest how critical this need for social acceptability is in shaping consumers' attitudes towards products besides influences on their purchasing habits altogether. For example people choose frequently consumed products within their circle for fear of being ostracized socially while steering well clear of stigmatized or undesirable items due to fear of social disapproval (Bearden & Etzel 1982; Rook & Fisher 1995). Consumers often seek out alternative consumption choices or smaller niche markets in order to preserve individuality while avoiding conformism (Belk, 1988). On the other hand, some consumers may not sense the need for social acceptance and may make consumption decisions based primarily on personal preferences or functional requirements. These consumers may have a strong sense of self-identity and may not feel compelled to conform to their social group's norms (Markus & Kitayama, 1991).

Those who place high importance on social acceptance may be more likely to conform to social norms and consume foods that are perceived as socially acceptable, whereas those who place less importance on social acceptance may be less influenced by social norms and more likely to make food choices based on personal preferences and values (Pliner & Hobden, 1992).

Overall, the relationship between social acceptance, self-image, and consumer behavior is intricate and multidimensional, and additional research is required to better comprehend the underlying mechanisms and individual differences that drive this behavior.

1.4. Social Acceptance and Meat Consumption

Individuals may modify their meat consumption to fit in with their social group or conform to social norms, according to research (Rozin et al., 2012). Those who perceive meat consumption as a symbol of masculinity or social status, on the other hand, are more likely to increase their meat consumption (Rothgerber, 2014). This indicates that social acceptability may play a significant role in determining meat consumption habits. One study found that health-conscious individuals were more likely to choose vegetarian options in social contexts, but more likely to choose meat options when they perceived them to be socially desirable (Mullee et al., 2017).

Individuals with high conformity and low self-esteem were more likely to consume meat products, particularly if they perceived meat consumption as socially desirable, according to a separate study (Ruby, 2012). These results suggest that the relationship between self-image, social acceptability, and meat consumption is complex and warrants additional study.

1.5. Hypotheses

As the literature review suggests, the present study seeks to test the complex effect of self-image (efficient vs. indulgent) and social acceptability (need vs. non-need) on judgments towards product selection, particularly in the context of meat vs. meat substitutes. For testing this the study implements a 2x2x2 design with three independent variables. Self-image and Social Acceptability are going to be tested between the subjects while product selection is going to be tested within the subjects. As dependent variables the level of satisfaction, purchase intention, recommendation intention, health perception, sustainability perception, utilitarian product perception, hedonic product perception, and the differentiation between a utilitarian and hedonic product are going to be tested. In addition, a hypothesized interaction effect between self-image and social acceptance on consumer behavior in the context of meat vs. meat substitutes is going to be tested. Here is an overview of the hypotheses going to be tested:

H1 (Main effect of self-image on dependent variables)

H1.1.1: A self-image of indulgent will lead to a higher level of satisfaction/purchase intention/recommendation intention/health perception/sustainability perception/hedonic product perception than an efficient self-image when buying a meat product.

H1.1.2: A self-image of indulgent will lead to a lower level of satisfaction/purchase intention/recommendation intention/health perception/sustainability perception/hedonic product perception than an efficient self-image when buying a meat substitute.

H1.2.1: A self-image of indulgent will lead to a lower level of utilitarian product perception than an efficient self-image when buying a meat product.

H1.2.2: A self-image of indulgent will lead to a higher level of utilitarian product perception than an efficient self-image when buying a meat substitute.

H2 (Main effect of social acceptability on dependent variables)

H2.1.1: A need for social acceptance will lead to a lower level of satisfaction/purchase intention/recommendation intention/health perception/sustainability perception/hedonic product perception than a non-need for social acceptance when buying a meat product.

H2.1.2: A need for social acceptance will lead to a higher level of satisfaction/purchase intention/recommendation intention/health perception/sustainability perception/hedonic product perception than a non-need for social acceptance when buying a meat substitute.

H3 (interaction effect)

H.3.1: A self-image of indulgent should lead to buy a meat product while a self-image of efficient will lead to buy a meat substitute.

H.3.2: The need for social acceptance should lead to buy a meat-substitute, while a non-need of social acceptance should lead to buy a meat product.

H.3.3: When having an indulgent self-image and a need for social acceptance a person would rather choose a meat substitute than when having a non-need for social acceptance. When having an efficient self-image, a person would always choose the meat substitute.

2. Methodology

2.1. Design

This study utilized a mixed design with three independent variables with each of two types: self-image (efficient vs. indulgent), social acceptance (need vs. non-need), and product type (meat vs. meat substitute). In this 2x2x2 design self-image and social acceptance are between subjects and the type of product within the subjects. The dependent variables were the ratings of meat and meat substitute products by the participants in terms of satisfaction, the likelihood of purchase, the likelihood of recommending to a friend, the likelihood of future purchase, healthfulness, and sustainability. Another dependent variable was whether the participant perceived the product as hedonic or utilitarian.

2.2. Participants

To reach a wide audience, the survey was distributed via various social media channels, including LinkedIn and Instagram, and via direct distribution to the closer network of the author. More than 120 individuals were randomly assigned to one of four survey versions: indulgent self-image with the need for social acceptance, indulgent self-image without the need for social acceptance, efficient self-image with the need for social acceptance, and efficient self-image without the need for social acceptance. The sample size was calculated to include at least 30 individuals per group to achieve statistical relevance. The exact demographics can be found in the results section.

2.3. Material

2.3.1. Independent Variables

The first block consisted of a manipulation designed to prime participants with the different specifications of the independent variables. An detailed overview of the manipulation can be found in the Appendix.

Self-Image

For priming the participants with the different self-images, one of the following was presented randomly: For the indulgent self-image, the participants were given the following statement: *Imagine yourself on a lazy weekend afternoon. You have no obligations or responsibilities and can do whatever you please. You decide to indulge yourself in a decadent treat, savoring every bite without any guilt or worry. You are completely in the moment, enjoying the pleasure that comes with indulging in something delicious. Throughout the survey please keep in mind that your goal is to have food that gives you pleasure and satisfaction. (...)*

Whilst for the efficient self-image the participants were asked to induce the following mindset: *Imagine yourself starting a new project or task. You feel confident and capable, knowing that you have the necessary skills and knowledge to complete it efficiently. You approach the task with an on-practicability-focused mindset, identifying the needs and finding practical and efficient solutions. You feel a sense of satisfaction and accomplishment as you successfully complete the task, knowing that you used your time and resources effectively. Please keep in mind that throughout the survey your goal is to have food that gives you a sense of being efficient and seeing its practical use. (...)* After inducing this mindset in the participants, they were asked to rate how they would rate their current level of efficiency/indulgence on a 7-point rating scale.

Social Acceptance

The manipulation of the need or non-need for social acceptance was also asked in two different ways. To induce a mindset of a non-need of social acceptance the participants were presented with the following: *Efficiency and pragmatism/ Pleasure and satisfaction in life events are often needed in social gatherings, moments where we are with other people. Imagine yourself in a situation where you have the opportunity to express your true opinions and beliefs without fear of judgment or rejection from others. You feel confident and secure in yourself, and don't feel the need to seek approval or validation from anyone else. (...)*

Vice versa, to induce a mindset of needing social acceptance the participants were given the following statement: *Efficiency and pragmatism/ Pleasure and satisfaction in life events are often associated with social gatherings, moments where we are with other people. Imagine that you are at a party with people you don't know very well. You want to make a good impression and fit in*

with the group. You pay close attention to what others are saying and try to find common interests so that you can contribute to the conversation. You feel a sense of relief and satisfaction when you sense that others accept you and enjoy your company. (...)

Then the participants were asked to imagine a situation as follows: *Please imagine now that you are going to host a dinner party with your friends tomorrow. For that purpose, you are shopping at your local grocery store to buy some groceries for dinner. You are now in the meat aisle and you see two options: a meat product and a meat substitute product.* Also, the participants were shown two images, one of a meat product and the other of a meat substitute, (Figure 1 and Figure 2) and were instructed to select the option they believed to be the best according to the manipulation. Also, the participants were asked to use the before-induced mindset to find their decision. This was done by using different types of questions. Here is an example with the mindset of an indulgent self-image and the need for social acceptance: *When making your choice between these products, please imagine yourself in a mindset, which is focusing on pleasure and enjoyment. You also want to make sure that you fit in and are accepted by the group. Choose the option that would bring you the most pleasure and would be the most socially acceptable to your peers.*

Vice versa, here is an example with the mindset of an efficient self-image and the non-need for social acceptance: *When making your choice between these products, please imagine yourself in a mindset, which is on-practicability-focused. You are comfortable with who you are and confident in your own choices. Choose the option that would let you feel the most practical and best reflects your personal taste without considering how it may be perceived by others.*

In reality, different groups of participants were asked two more expressions of this example sentence, but they are self-exploratory here. One would be with a mindset of an indulgent self-image with the non-need for social acceptance and the other one with a mindset of an efficient self-image with the need for social acceptance.

Product Type

For presenting the participants with the third independent variable, product type, two images were created to illustrate the example, which you can see above. The participants should not only be shown a word but they should be able to imagine and see something before they make their choice. The two images with their specific boundaries were specially designed to remove as

many biases as possible from the participants. When buying meat, many consumers nowadays make sure that it is sourced locally and not from factory farms. With its counter product, the substitutes, they make sure that only certain plants are used and that the taste of the product tastes good and is reminiscent of meat. In Figure 1, we see the meat substitute product. The name of the product is pure plant and indicates the composition of the meat substitute: plants. In addition, on the product packaging was marked that the meat is one hundred percent vegetable, but it should still have a real meat taste. In addition, no additives such as soy, gluten, or genetically modified organism have been added. All these substances may trigger an anti-opinion among some consumers, as they are associated with either health or environmental risks. In addition, more labels have been added. For example, a sustainable movement sticker and some other symbols, which induce environmental and health compatibility.

In the second figure, we see the meat product. Again, we see meat packaging, as it is now available in many supermarkets. The brand name here is premium pork and has as a logo a small pig. The meat is promised to be 100% real meat, which comes from regional farms and is supposed to have happy animals. This means that the survey participants should not worry about factory farming and its negative effects. In this example, too, various labels and symbols were used, such as a sticker with the words “support local”, a happy pig, a house that expresses the local nature of the meat, and a green heart with “bio” in the middle, which refers to organic in many languages.



Figure 1



Figure 2

2.3.2. Dependent Variables

Subsequently, the participants were instructed to rate a set of dependent variables, which were carefully selected to measure specific constructs of interest in the study. The participants were again randomly shown one of the packages just discussed and then asked questions about different dependent variables. The first dependent variable asked for was **product satisfaction**: *How satisfied do you think will you be with this product?* Participants were asked to answer this question on a 7-point rating scale with one being *Not satisfied at all* and seven being *Extremely satisfied*. Subsequently, the **purchase intention** was asked with the following question: *How likely are you to purchase this product?* Again a 7-point rating scale was used with one being *Not likely* and seven being *Very Likely*. Following the **recommendation intention** was tested with the question: *Would you recommend this product to a friend?* Here the scale again ranged from one to seven with one being *Not recommend at all* and seven being *Highly recommend*. Subsequently, the participants were asked for the level of health associated with the product (**health perception**) and should choose a number between one to seven. One was referred here to *Not good at all* while seven were referred to *Extremely healthy*. This is the question asked for this dependent variable: *How well do you think is this product for your health?* Following this, the level of sustainability associated with the product (**sustainability perception**) as a dependent variable was tested. The related question to this is: *How well do you think is this product in terms of sustainability?* Participants were asked to answer this question on a 7-point rating scale with one being *Not good at all* and seven being *Extremely sustainable*. The subsequent dependent variable assessed was the level of utilitarian experience associated with the product (**utilitarian product perception**): *How much do you agree with the following statement: "I would choose this product because it meets my practical needs."* Again, the participants were asked to answer on a 7-point rating scale with one being *Not agree at all* and seven *Totally agree*. Following the same pattern and scale the level of hedonic experience associated with the product (**hedonic product perception**) was assessed afterward: *How much do you agree with the following statement: "I would choose this product because it provides me with enjoyment or pleasure."*

After all the dependent questions regarding one form of the independent variable were asked, the participants were shown the packaging that had not been previously displayed. Accordingly, if Pure Plant was shown initially, it was followed by Premium Pork, or vice versa. Upon viewing

the image, the same procedure as for all dependent variables was employed to conduct the testing.

2.3.3. Control variables

Furthermore, to maintain internal validity and control for potential confounding factors, participants were also required to complete a series of questions related to control variables and manipulation checks. Concerning the control variables, participants were questioned about their **eating habits, social acceptability, sustainability, health**, etc., to account for potential confounding factors or influences and control their effects on the dependent variable. An overview of the questions presented to the participants regarding the control variables can be found in the [Appendix](#).

2.3.4. Manipulation checks

In addition, the participant's comprehension of the manipulation was assessed with two queries concerning the manipulation. One for the manipulation of self-image and the other for the manipulation of social acceptance. The question for the control of the self-image was like the following: *In this survey, you were asked to think of yourself as: A person who is practical, A person who is concerned with the morality of others' behavior, A person who is connected to nature, A person who is fun and pleasure-loving.* In this case, two responses are merely decoys, one representing the intended manipulation and another response option representing a manifestation of the manipulation from a different survey variation, which is unintended. Subsequently, for the control of the social acceptance manipulation, the participants were asked the following question: *In this survey, you were asked to think of yourself as: A person that helps their friend, A person that is independent of other approval, A person that is competitive, A person that is aware of the need of approval from others.* Also, here only one answer is right, two are decoys and the last is the right answer to the variation of another survey.

2.3.5. Demographics

One final block of questions consisted of a series of different questions regarding the demographics of the participants. The questions asked about the approximate annual income, gender, age group and place of residence in the last 3 months.

2.4. Procedures

After receiving the participant's click on the provided survey link, they were redirected to a page that sent them another link. This link contained one of the four manifestations of the survey and guided the participants to proceed further.

Initially, upon arrival, the participant was greeted by a welcome page. This page provided information about the formalities, purpose, and data privacy of the survey. Additionally, contact details were provided for participants to reach out in case of any questions. Following this section, the aforementioned manipulation was introduced. All three independent variables and their manifestations were presented to the participants, along with a request to maintain the induced mindset throughout the survey. Moreover, during the product manipulation, participants were able to see the two packaging variations, which were further discussed above. Subsequently, the two blocks of dependent variables were randomized and presented. Thus, it varied for each participant whether the dependent variables related to meat or meat substitutes were tested first. Following these blocks, the control variables were assessed to consider potential confounding factors or influences and control for their effects on the dependent variable. Finally, a test was conducted to assess the effectiveness of the manipulation, as explained in more detail earlier. Lastly, to conclude the survey, participants were asked to provide their demographic information, including age, gender, educational background, current profession, current household income, and the country they lived in in the past three months. This demographic data facilitates a comprehensive analysis of the study's findings, allowing for potential subgroup analyses or comparisons across different participant characteristics. Finally, the participants were extended their gratitude for their participation and contribution to the research endeavor. Also, there was space to leave some feedback and comments. It is essential to note that the sequencing of tasks and data collection procedures outlined above adhered to established research protocols and

ethical guidelines to ensure participant confidentiality, informed consent, and the overall integrity of the study.

3. Results

3.1. Basic demographics

While analyzing the data we faced a problem which we will later discuss in the limitations: The survey probably was too long because we have many unfinished surveys. Due to that we can only analyze N=81.

The analysis of the data revealed that most participants fell within the **age groups** of 18-24 (25.9%) and 25-34 (44.4%), accounting for a cumulative percentage of 71.3% and 96.3%, respectively. Participants aged 35-44 accounted for 4.9% of the sample, while those aged 45-54 represented 6.2%. The age group of 55-64 consisted of 14.8% of the participants, and individuals aged 65 or older made up 2.5% of the sample. Also, the analysis of the data revealed regarding **gender** that 42 (51.9%) of the participants were male and 39 (48.1%) were females. No one out of the sample chose another binary form. **Educational** wise the analysis reveals that 3.7% of the participants in the sample had less than a high school diploma, while 9.9% had a high school diploma or its equivalent. Participants with a college or associate degree constituted 7.4% of the sample, and those with a bachelor's degree represented 28.4%. The majority of participants, 46.9%, held a graduate or professional degree, and this category also included those classified as "other" since all other types of educational backgrounds named by the participants were part of a higher professional degree. When considering cumulative percentages, up to 49.4% of the participants held a bachelor's degree or higher, and 96.3% had attained a college education level or higher. This shows that the survey reached primarily people with a higher educational background. Out of 81 participants, 79 provided valid responses while 2 responses were missing. **The income levels** were categorized into six groups, where most participants (30.4%) reported an income of less than \$25,000. The next largest group of participants (16.5%) reported an income between \$25,001 and \$49,999, followed by 17.7% of participants reporting an income between \$50,000 and \$74,999. Another 16.5% of participants reported an income between \$75,000 and \$99,999, while 11.4% reported an income between \$100,000 and \$149,999. The smallest income group was participants reporting an income greater than \$150,000 at 7.6%. Most of the sample

(65.4%) lived the last three months in Germany, followed by Portugal (8.6%), France (3.7%), and the Netherlands (4.9%). There are also respondents from Denmark, Austria, Peru, Sweden, and the USA. Regarding **employment** the study revealed that 46.9% of the participants in the study consist of individuals who are employed full-time. Furthermore, a significant portion of the participants (30.9%) are students. Additionally, 14.8% of the participants are employed part-time. A smaller proportion, 2.5%, are currently unemployed and actively seeking work, while only a few participants, 1.2%, are unemployed and not actively looking for employment. A small percentage of 3.7% of participants are retired.

3.2. Manipulation Checks

Two questions were asked to assess the effectiveness of as part of the Manipulation Check of Self-Image (SI) (indulgent vs. Efficient) and Social Acceptance (SA) (need vs. non-need). Participants had four response options for each, and only one response was correct. If we analyze the manipulation checks, we can see that our checks did not work as they should have happened. This is going to be discussed later in the Limitations section. An overview over the questions asked, can be found in the Appendix 9.

For the manipulation of self-image, in the condition indulgent, 42% of participants selected the correct option, and 72.5% for the efficient condition.

For the manipulation of need for social acceptance, in the condition need, 61.25% of the participants choose the correct option, while 62.25% choose the right option in the non-need condition.

While analyzing the results of the manipulation checks, it is evident that the manipulations did not work as intended. The participants did not respond consistently with the desired manipulations, also when most of the participants always choose the right answer. Overall, the manipulation check results suggest that the manipulations did not produce the desired effects consistently across all conditions. These findings raise concerns about the effectiveness of the manipulations and indicate the need for further examination and refinement of the manipulations for future research.

3.3. Control Variables

For the sake of clarity and assessment, all control variables of the different survey types have been summarized below. An overview of each different group can be found in the Appendix 9. On examination, all groups have almost similar mean values, despite different group sizes. It can therefore be assumed that the groups are homogeneous. The control variables were evaluated to obtain more information about the participants of the survey. The following results were obtained regarding the dietary habits of the participants: The distribution of diets showed that 4.9% of participants were vegan, 12.3% were vegetarian, 3.7% were pescetarian (vegetarian with seafood), 25.9% were flexitarian (mostly vegetarian with occasional meat consumption), 49.4% were omnivorous (regularly ate both meat and plant foods), and 3.7% reported other diets. Information from the remaining 4.9% of participants was incomplete or missing.

Regarding the frequency of meat consumption, the following results emerged: 14.8% of participants reported never consuming meat, 13.6% rarely (once a month or less), 12.3% occasionally (2-3 times a month), 28.4% sometimes (1-2 times a week), 17.3% often (3-4 times a week), and 13.6% very often (5 or more times a week).

Regarding the consumption of meat substitutes, the following results emerged:

16.0% of participants reported never consuming meat substitutes, 13.6% rarely (less than once a month), 28.4% occasionally (1-2 times a month), 37.0% sometimes (1-2 times a week), and 4.9% often (3-4 times a week).

As already mentioned in the material part under methodology, the other control variables were recorded using a rating scale from 1 to 7. The mean values and standard deviations show how the participants rate the importance of certain factors. The importance of a healthy diet was rated an average of 5.12, with a standard deviation of 1.354. This indicates that participants generally ascribed moderate to high importance to a healthy diet.

The importance of environmental impact received a mean score of 4.96 with a standard deviation of 1.259, indicating that participants generally have a moderate appreciation of environmental impact.

The importance of the ethical treatment of animals received a mean score of 5.40 with a standard

deviation of 1.394, indicating that participants generally consider the ethical treatment of animals to be relatively important. The need for social acceptance received a mean score of 4.11 with a standard deviation of 1.636, suggesting that participants place a moderate to low importance on feeling socially accepted. Feeling socially included received a mean score of 5.80 with a standard deviation of 1.030, suggesting that participants generally feel socially included. Feeling social pressure received a mean score of 3.20 with a standard deviation of 1.600, suggesting that participants tend to feel little social pressure overall. The expressions of practical self-image received an average score of 5.22, with a standard deviation of 1.000. This suggests that the participants have a moderate expression of a practical self-image. The expressions of the compliant self-image received an average score of 5.48 with a standard deviation of 1.074, indicating that the participants tended to have a moderate expression of a compliant self-image. The following table summarizes the data:

Control Variable	Mean (Std. Deviation)
Importance of a healthy diet	5.12 (1.354)
Importance of environmental impact	4.96 (1.259)
Importance of ethical animal treatment	5.40 (1.394)
Importance of feeling socially accepted	4.11 (1.636)
Feeling socially included	5.80 (1.030)
Feeling socially pressured	3.20 (1.600)
Extend of a practical self-image	5.22 (1.000)
Extend of an indulgent self-image	5.48 (1.074)

3.4. Main dependent variables

3.4.1. Satisfaction

The main effect of self-image: We found no effect of self-image on satisfaction ($F(1) = .77$, $p = .383$, $M_{\text{indulgent}} = 4.27$, $SD_{\text{indulgent}} = 1.98$, $M_{\text{efficient}} = 4.52$, $SD_{\text{efficient}} = 1.68$).

The main effect of social acceptance: Moreover, there is no effect of social acceptance on satisfaction ($F(1) = 2.44, p = .122, M_{\text{need}} = 4.67, SD_{\text{need}} = 1.72, M_{\text{non-need}} = 4.21, SD_{\text{non-need}} = 1.79$).

The main effect of product type: There is no effect of the type of product on satisfaction ($F(1) = .13, p = .722, M_{\text{substitute}} = 4.47, SD_{\text{substitute}} = 1.80, M_{\text{meat}} = 4.38, SD_{\text{meat}} = 1.74$).

Interaction effects:

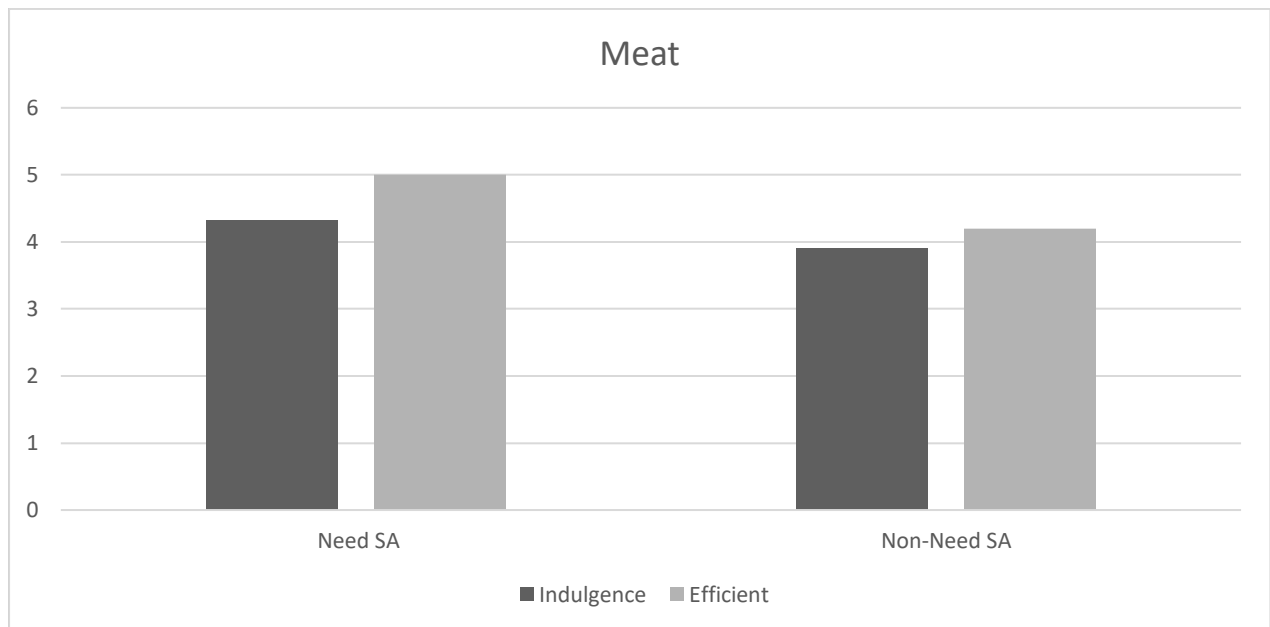
There is no significant interaction between self-image and social acceptance ($F = .29, p = .592$).

There is no interaction between self-image and product type ($F = .67, p = .414$).

There is no interaction between social acceptance and product type ($F = .43, p = .516$).

The third-order interaction between self-image, social acceptance, and product type was also not significant ($F = .02, p = .883$).

	Self-Image	Social Acceptance	Mean	Std. Deviation	N
Meat Substitute	Indulgent	Need	4.53	1.598	15
		Non-Need	4.41	2.175	22
		Total	4.46	1.938	37
	Efficient	Need	4.63	1.765	24
		Non-Need	4.30	1.625	20
		Total	4.48	1.691	44
	Total	Need	4.59	1.681	39
		Non-Need	4.36	1.910	42
		Total	4.47	1.796	81
Meat	Indulgent	Need	4.33	2.093	15
		Non-Need	3.91	1.974	22
		Total	4.08	2.005	37
	Efficient	Need	5.00	1.504	24
		Non-Need	4.20	1.281	20
		Total	4.64	1.448	44
	Total	Need	4.74	1.758	39
		Non-Need	4.05	1.667	42
		Total	4.38	1.736	81



3.4.2. Purchase intention

The main effect of self-image: We found no effect of self-image on purchase intention ($F(1) = 2.44$, $p = .123$, $M_{\text{indulgent}} = 3.96$, $SD_{\text{indulgent}} = 2.15$, $M_{\text{efficient}} = 4.39$, $SD_{\text{efficient}} = 1.90$).

The main effect of social acceptance: Moreover, there is no effect of social acceptance on purchase intention ($F(1) = .92, p = .340, M_{\text{need}} = 4.37, SD_{\text{need}} = 2.12, M_{\text{non-need}} = 4.02, SD_{\text{non-need}} = 1.99$).

The main effect of product type: There is no effect of the type of product on purchase intention ($F(1) = .23, p = .635, M_{\text{substitute}} = 4.23, SD_{\text{substitute}} = 2.05, M_{\text{meat}} = 4.15, SD_{\text{meat}} = 2.06$).

Interaction effects:

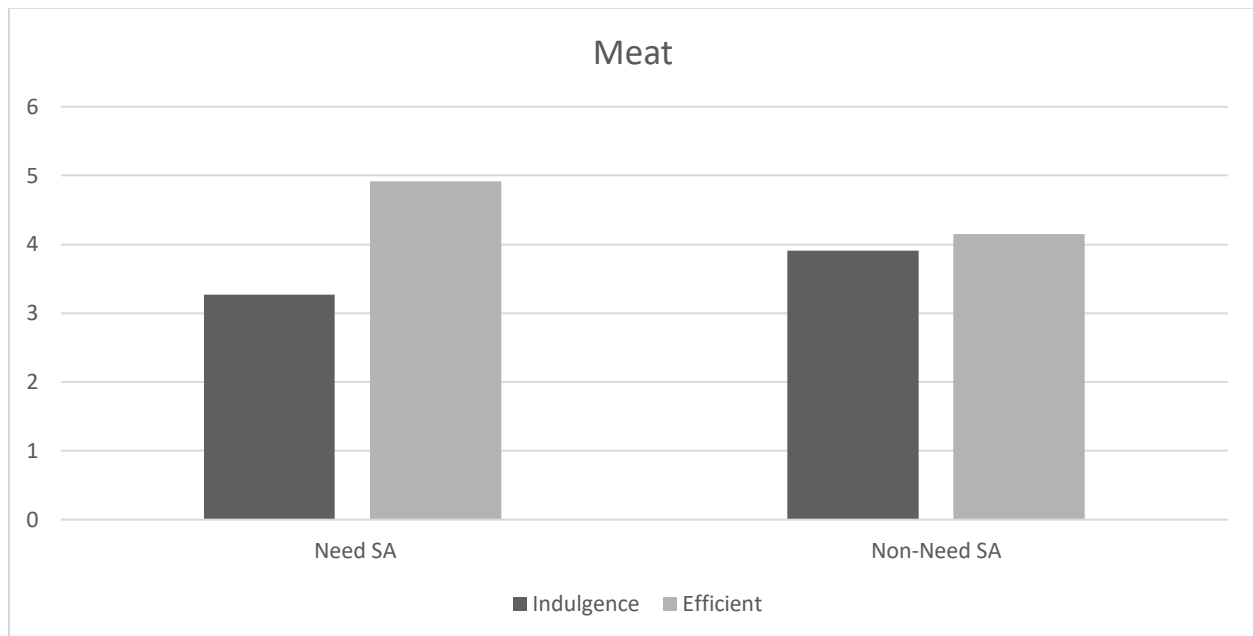
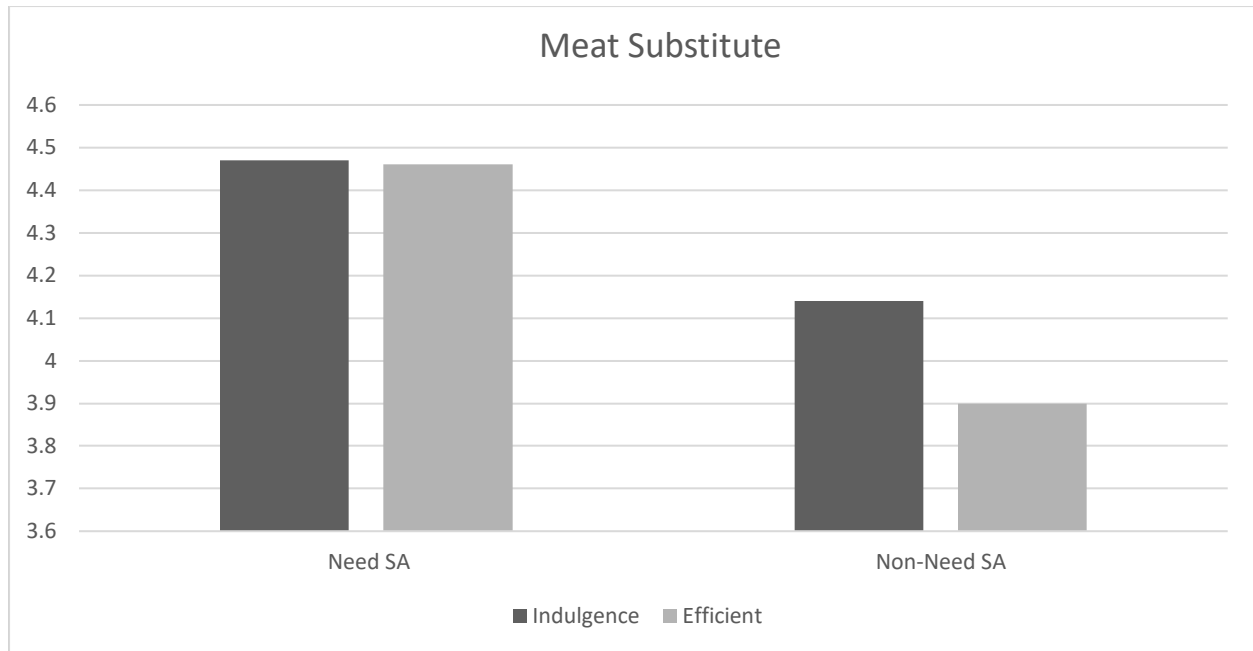
There is no significant interaction between self-image and social acceptance ($F = 2.41, p = .125$).

There is no interaction between self-image and product type ($F = 1.99, p = .161$).

There is no interaction between social acceptance and product type ($F = .26, p = .614$).

The third-order interaction between self-image, social acceptance, and product type was also not significant ($F = .61, p = .437$).

	Self-Image	Social Acceptance	Mean	Std. Deviation	N
Meat Substitute	Indulgent	Need	4.47	1.885	15
		Non-Need	4.14	2.336	22
		Total	4.27	2.143	37
	Efficient	Need	4.46	2.064	24
		Non-Need	3.90	1.889	20
		Total	4.20	1.983	44
	Total	Need	4.46	1.971	39
		Non-Need	4.02	2.113	42
		Total	4.23	2.045	81
Meat	Indulgent	Need	3.27	2.251	15
		Non-Need	3.91	2.114	22
		Total	3.65	2.163	37
	Efficient	Need	4.92	2.062	24
		Non-Need	4.15	1.599	20
		Total	4.57	1.885	44
	Total	Need	4.28	2.259	39
		Non-Need	4.02	1.867	42
		Total	4.15	2.056	81



3.4.3. Recommendation intention

The main effect of self-image: We found no effect of self-image on recommendation intention ($F(1) = 2.32, p = .131, M_{\text{indulgent}} = 3.73, SD_{\text{indulgent}} = 2.16, M_{\text{efficient}} = 4.16, SD_{\text{efficient}} = 1.83$).

The main effect of social acceptance: Moreover, there is no effect of social acceptance on recommendation intention ($F(1) = .00, p = .956, M_{\text{need}} = 4.03, SD_{\text{need}} = 2.04, M_{\text{non-need}} = 3.91, SD_{\text{non-need}} = 1.96$).

The main effect of product type: There is no effect of the type of product on recommendation intention ($F(1) = .08, p = .774, M_{\text{substitute}} = 3.88, SD_{\text{substitute}} = 2.01, M_{\text{meat}} = 4.05, SD_{\text{meat}} = 1.98$).

Interaction effects:

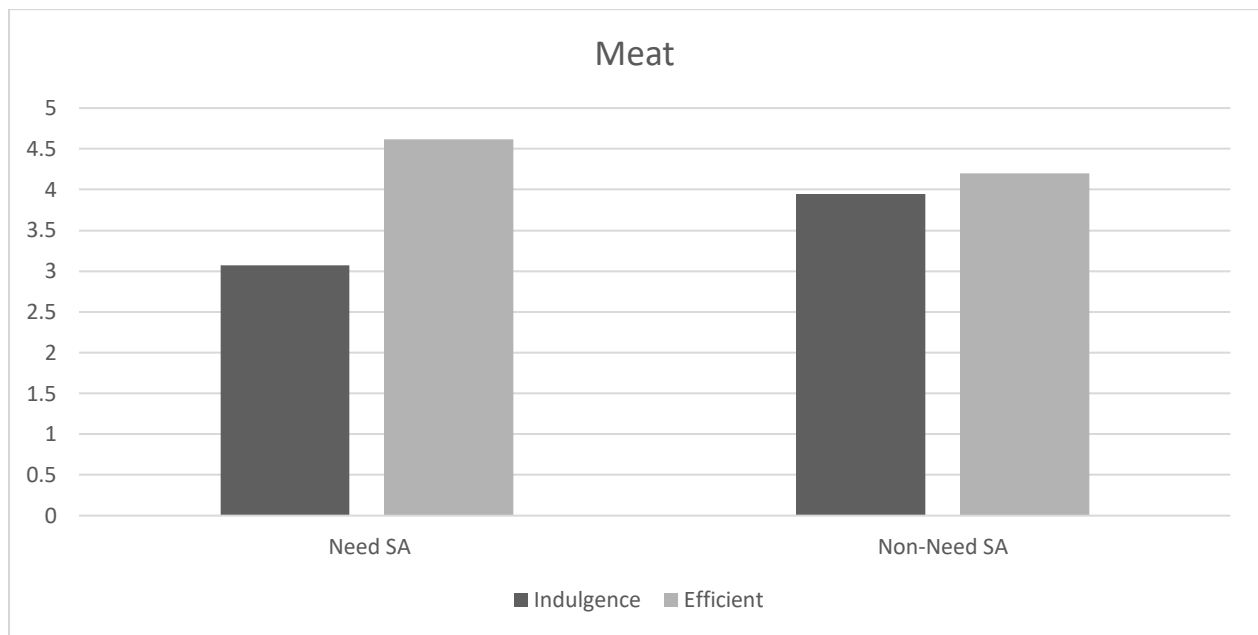
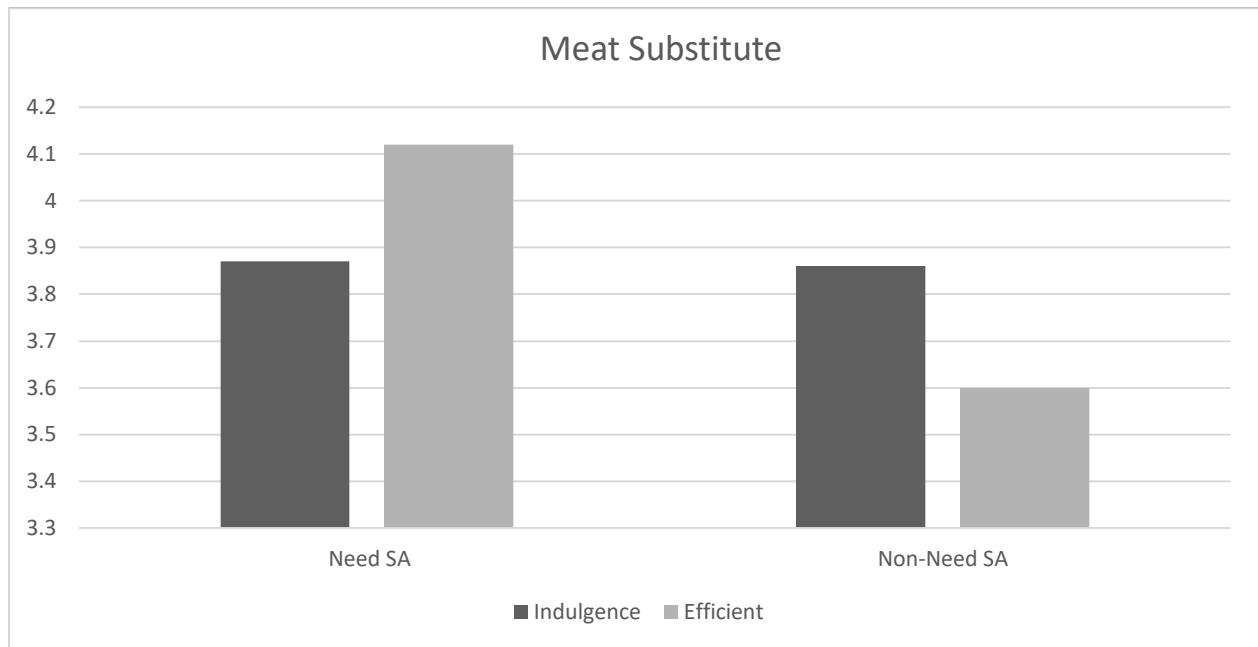
There is no significant interaction between self-image and social acceptance ($F = 2.42, p = .131$).

There is no interaction between self-image and product type ($F = 1.78, p = .186$).

There is no interaction between social acceptance and product type ($F = .53, p = .467$).

The third-order interaction between self-image, social acceptance, and product type was also not significant ($F = .34, p = .561$).

	Self-Image	Social Acceptance	Mean	Std. Deviation	N
Meat Substitute	Indulgent	Need	3.87	2.066	15
		Non-Need	3.86	2.210	22
		Total	3.86	2.123	37
	Efficient	Need	4.12	1.963	24
		Non-Need	3.60	1.903	20
		Total	3.89	1.932	44
	Total	Need	4.03	1.980	39
		Non-Need	3.74	2.049	42
		Total	3.88	2.009	81
Meat	Indulgent	Need	3.07	2.219	15
		Non-Need	3.95	2.149	22
		Total	3.59	2.192	37
	Efficient	Need	4.62	1.837	24
		Non-Need	4.20	1.576	20
		Total	4.43	1.717	44
	Total	Need	4.03	2.109	39
		Non-Need	4.07	1.879	42
		Total	4.05	1.981	81



3.4.4. Health Perception

The main effect of self-image: We found no effect of self-image on health perception ($F(1) = 1.97$, $p = .164$, $M_{\text{indulgent}} = 3.69$, $SD_{\text{indulgent}} = 1.70$, $M_{\text{efficient}} = 4.06$, $SD_{\text{efficient}} = 1.47$).

The main effect of social acceptance: Moreover, there is no effect of social acceptance on health perception ($F(1) = .14$, $p = .710$, $M_{\text{need}} = 3.98$, $SD_{\text{need}} = 1.86$, $M_{\text{non-need}} = 3.81$, $SD_{\text{non-need}} = 1.40$).

The main effect of product type: There is an effect of the type of product on health perception ($F(1) = 4.72$, $p = .033$, $M_{\text{substitute}} = 3.53$, $SD_{\text{substitute}} = 1.65$, $M_{\text{meat}} = 4.25$, $SD_{\text{meat}} = 1.64$).

Interaction effects:

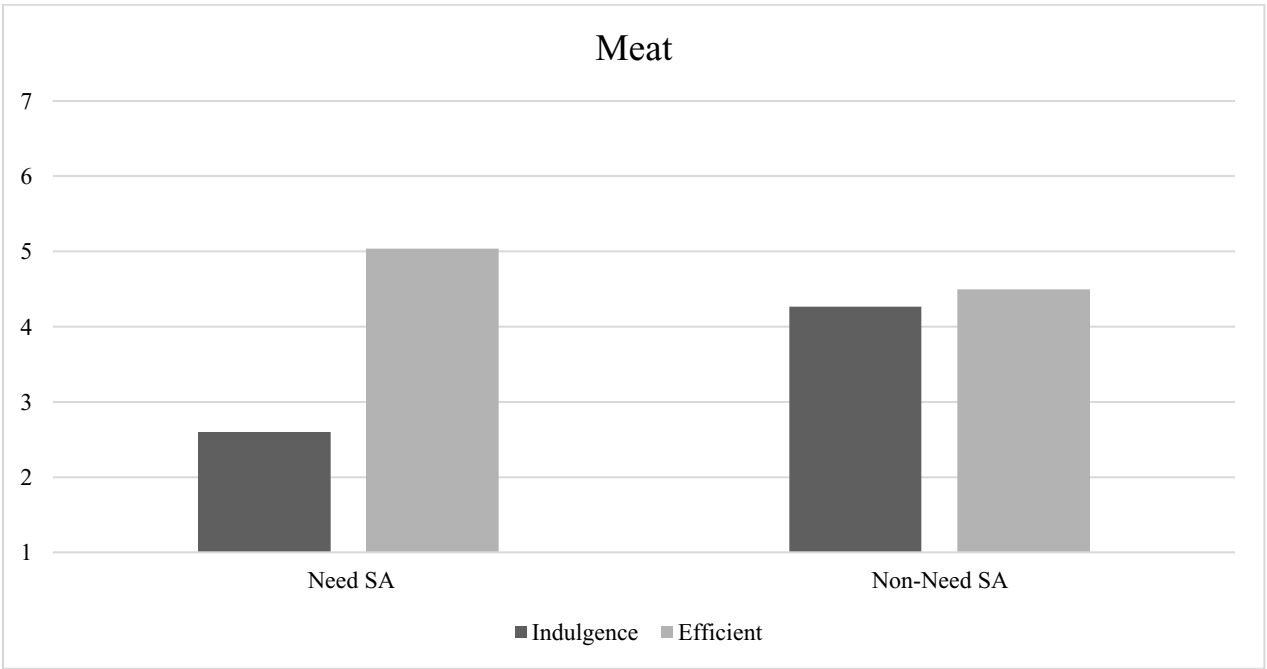
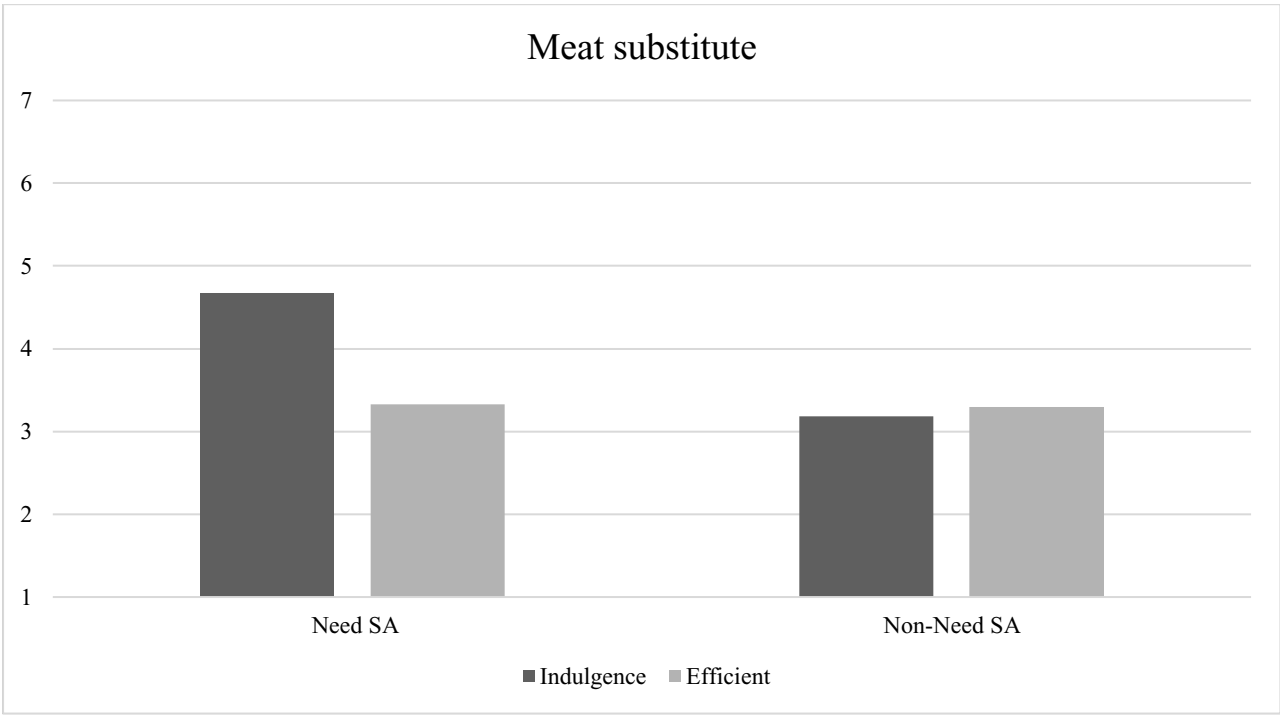
There is no significant interaction between self-image and social acceptance ($F = .54$, $p = .464$).

There is an interaction between self-image and product type ($F = 19.07$, $p = <.001$).

There is an interaction between social acceptance and product type ($F = 8.87$, $p = .004$).

The third-order interaction between self-image, social acceptance, and product type was also significant ($F = 16.99$, $p = <.001$).

	Self-Image	Social Acceptance	Mean	Std. Deviation	N
Meat Substitute	Indulgent	Need	4.67	1.543	15
		Non-Need	3.18	1.332	22
		Total	3.78	1.584	37
	Efficient	Need	3.33	1.810	24
		Non-Need	3.30	1.593	20
		Total	3.32	1.695	44
	Total	Need	3.85	1.814	39
		Non-Need	3.24	1.445	42
		Total	3.53	1.651	81
Meat	Indulgent	Need	2.60	1.724	15
		Non-Need	4.27	1.579	22
		Total	3.59	1.817	37
	Efficient	Need	5.04	1.334	24
		Non-Need	4.50	1.100	20
		Total	4.80	1.250	44
	Total	Need	4.10	1.903	39
		Non-Need	4.38	1.361	42
		Total	4.25	1.640	81



3.4.5. Sustainability Perception

The main effect of self-image: We found no effect of self-image on sustainability perception ($F(1) = .06, p = .805, M_{\text{indulgent}} = 3.88, SD_{\text{indulgent}} = 1.88, M_{\text{efficient}} = 3.97, SD_{\text{efficient}} = 1.41$).

The main effect of social acceptance: Moreover, there is no effect of social acceptance on sustainability perception ($F(1) = .57, p = .451, M_{\text{need}} = 4.03, SD_{\text{need}} = 1.94, M_{\text{non-need}} = 3.84, SD_{\text{non-need}} = 1.41$).

The main effect of product type: There is an effect of the type of product on sustainability perception ($F(1) = 27.27, p = <.001, M_{\text{substitute}} = 3.16, SD_{\text{substitute}} = 1.72, M_{\text{meat}} = 5.18, SD_{\text{meat}} = 1.70$).

Interaction effects:

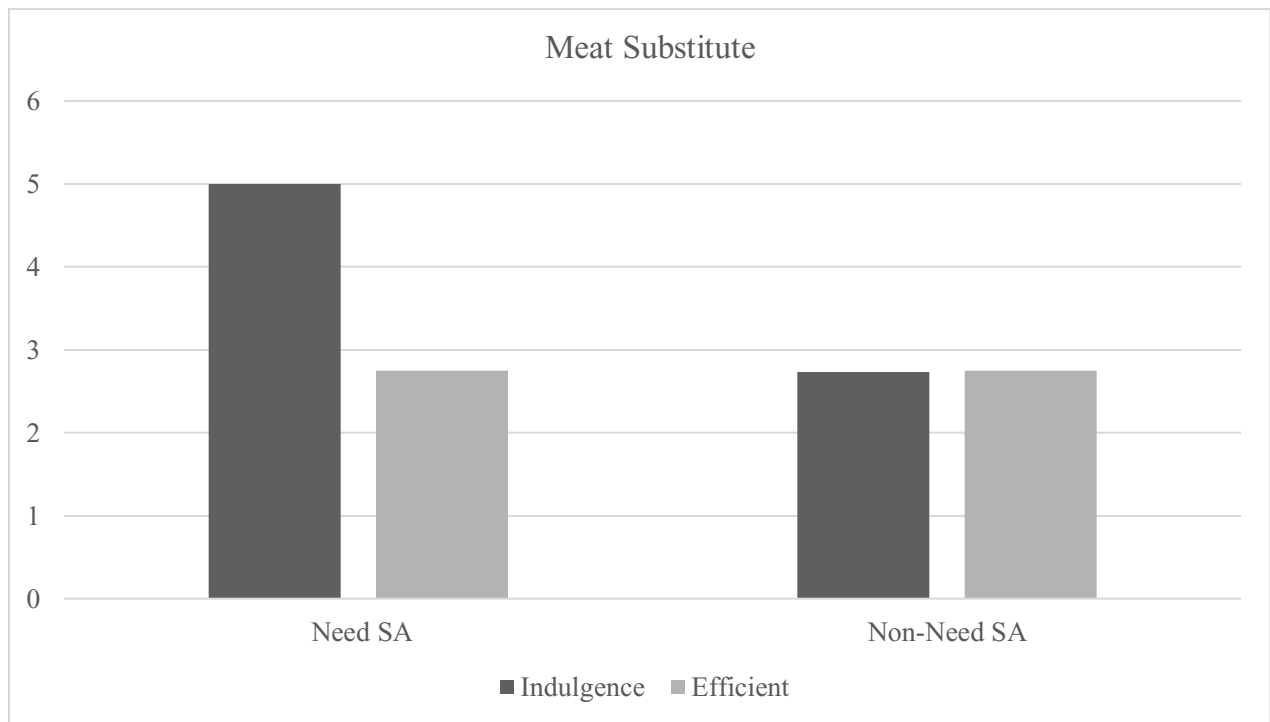
There is no significant interaction between self-image and social acceptance ($F = .00, p = .939$).

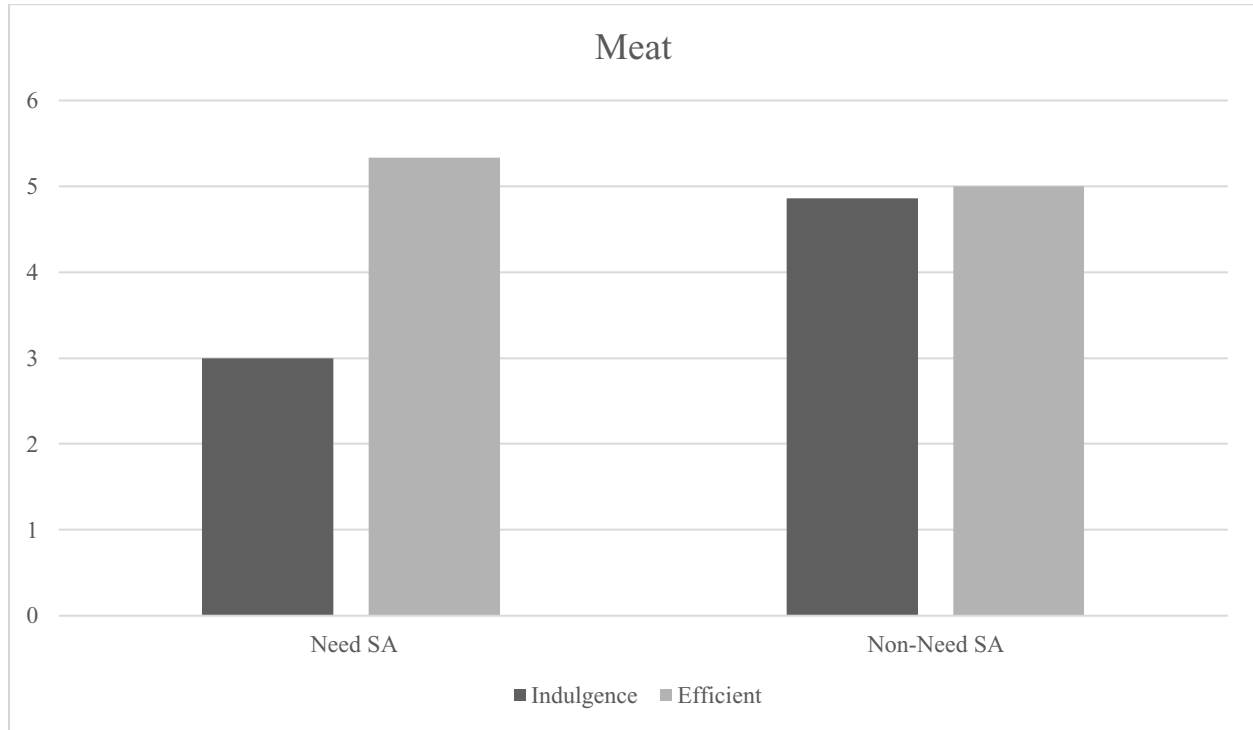
There is an interaction between self-image and product type ($F = 24.36, p = <.001$).

There is an interaction between social acceptance and product type ($F = 15.97, p = <.001$).

The third-order interaction between self-image, social acceptance, and product type was also significant ($F = 22.06, p = <.001$).

	Self-Image	Social Acceptance	Mean	Std. Deviation	N
Meat Substitute	Indulgent	Need	5.00	1.414	15
		Non-Need	2.73	1.316	22
		Total	3.65	1.751	37
	Efficient	Need	2.75	1.775	24
		Non-Need	2.75	1.410	20
		Total	2.75	1.601	44
	Total	Need	3.62	1.968	39
		Non-Need	2.74	1.345	42
		Total	3.16	1.721	81
Meat	Indulgent	Need	3.00	1.964	15
		Non-Need	4.86	1.699	22
		Total	4.11	2.011	37
	Efficient	Need	5.33	1.239	24
		Non-Need	5.00	1.214	20
		Total	5.18	1.225	44
	Total	Need	4.44	1.917	39
		Non-Need	4.93	1.472	42
		Total	4.69	1.708	81





3.4.6. Utilitarian Product Perception

The main effect of self-image: We found no effect of self-image on utilitarian product perception ($F(1) = 2.40, p = .125, M_{\text{indulgent}} = 3.67, SD_{\text{indulgent}} = 2.06, M_{\text{efficient}} = 4.17, SD_{\text{efficient}} = 1.86$).

The main effect of social acceptance: Moreover, there is no effect of social acceptance on utilitarian product perception ($F(1) = .45, p = .503, M_{\text{need}} = 4.09, SD_{\text{need}} = 1.86, M_{\text{non-need}} = 3.82, SD_{\text{non-need}} = 2.03$).

The main effect of product type: There is no effect of the type of product on utilitarian product perception $F(1) = .69, p = .408, M_{\text{substitute}} = 4.04, SD_{\text{substitute}} = 1.96, M_{\text{meat}} = 3.86, SD_{\text{meat}} = 1.95$).

Interaction effects:

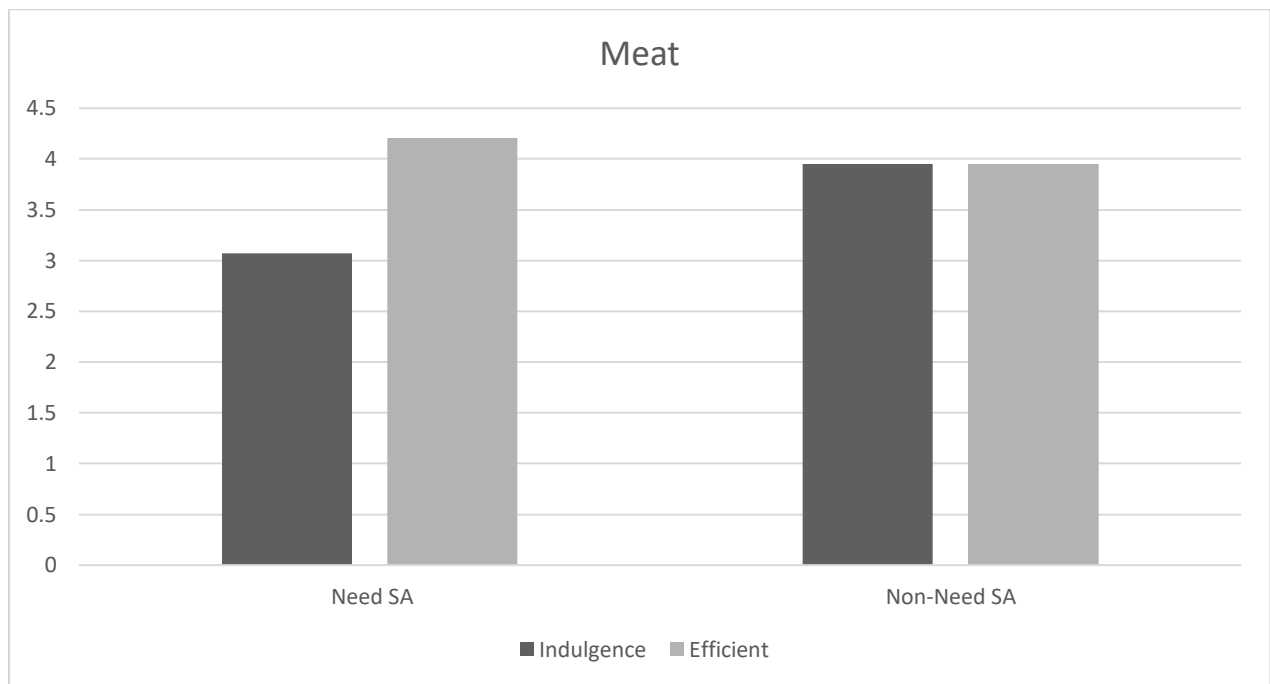
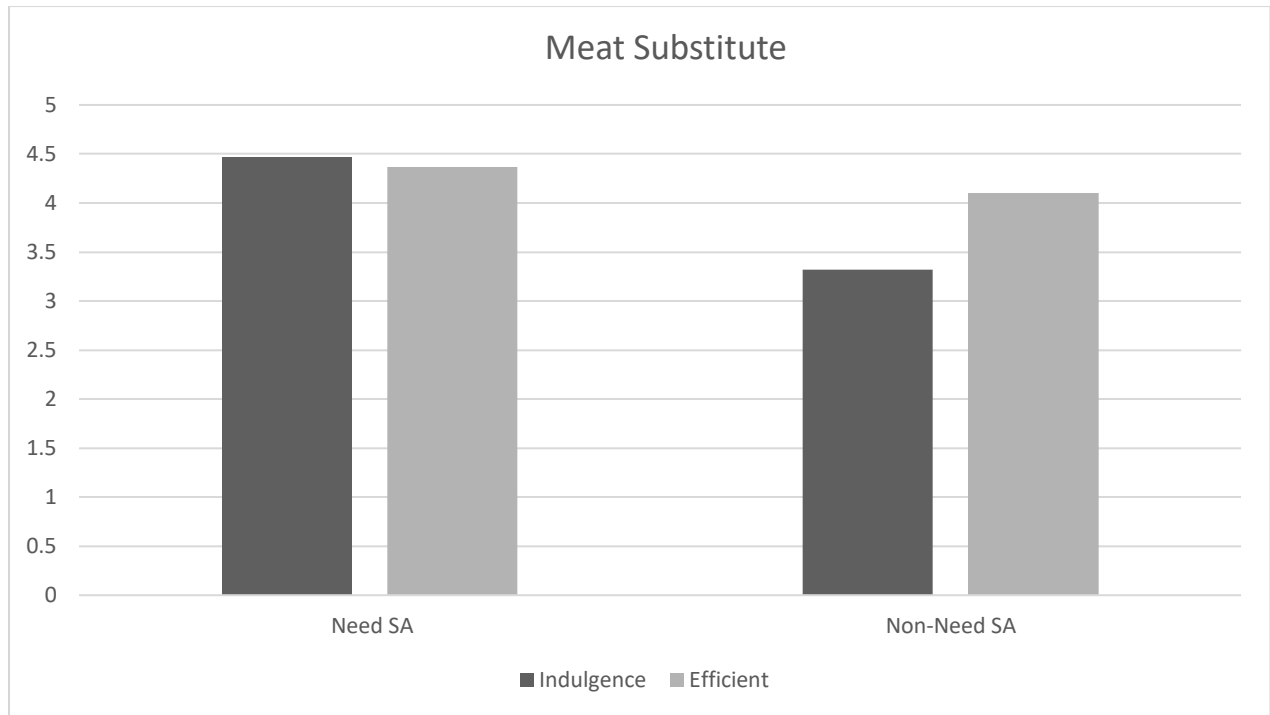
There is no significant interaction between self-image and social acceptance ($F = .05, p = .818$).

There is no interaction between self-image and product type ($F = .12, p = .732$).

There is no interaction between social acceptance and product type ($F = 2.50, p = .118$).

The third-order interaction between self-image, social acceptance, and product type was also not significant ($F = 2.42, p = .124$).

	Self-Image	Social Acceptance	Mean	Std. Deviation	N
Meat Substitute	Indulgent	Need	4.47	1.767	15
		Non-Need	3.32	2.169	22
		Total	3.78	2.070	37
	Efficient	Need	4.37	1.861	24
		Non-Need	4.10	1.889	20
		Total	4.25	1.857	44
	Total	Need	4.41	1.802	39
		Non-Need	3.69	2.054	42
		Total	4.04	1.959	81
Meat	Indulgent	Need	3.07	1.831	15
		Non-Need	3.95	2.149	22
		Total	3.59	2.047	37
	Efficient	Need	4.21	1.865	24
		Non-Need	3.95	1.877	20
		Total	4.09	1.853	44
	Total	Need	3.77	1.912	39
		Non-Need	3.95	1.999	42
		Total	3.86	1.948	81



3.4.7. Hedonic Product Perception

The main effect of self-image: We found no effect of self-image on hedonic product perception ($F(1) = .00$, $p = .960$, $M_{\text{indulgent}} = 3.77$, $SD_{\text{indulgent}} = 2.14$, $M_{\text{efficient}} = 3.75$, $SD_{\text{efficient}} = 1.87$).

The main effect of social acceptance: Moreover, there is no effect of social acceptance on hedonic product perception ($F(1) = .00, p = .923, M_{\text{need}} = 3.79, SD_{\text{need}} = 1.97, M_{\text{non-need}} = 3.82, SD_{\text{non-need}} = 2.00$).

The main effect of product type: There is no effect of the type of product on hedonic product perception ($F(1) = .14, p = .710, M_{\text{substitute}} = 3.83, SD_{\text{substitute}} = 2.04, M_{\text{meat}} = 3.69, SD_{\text{meat}} = 1.93$).

Interaction effects:

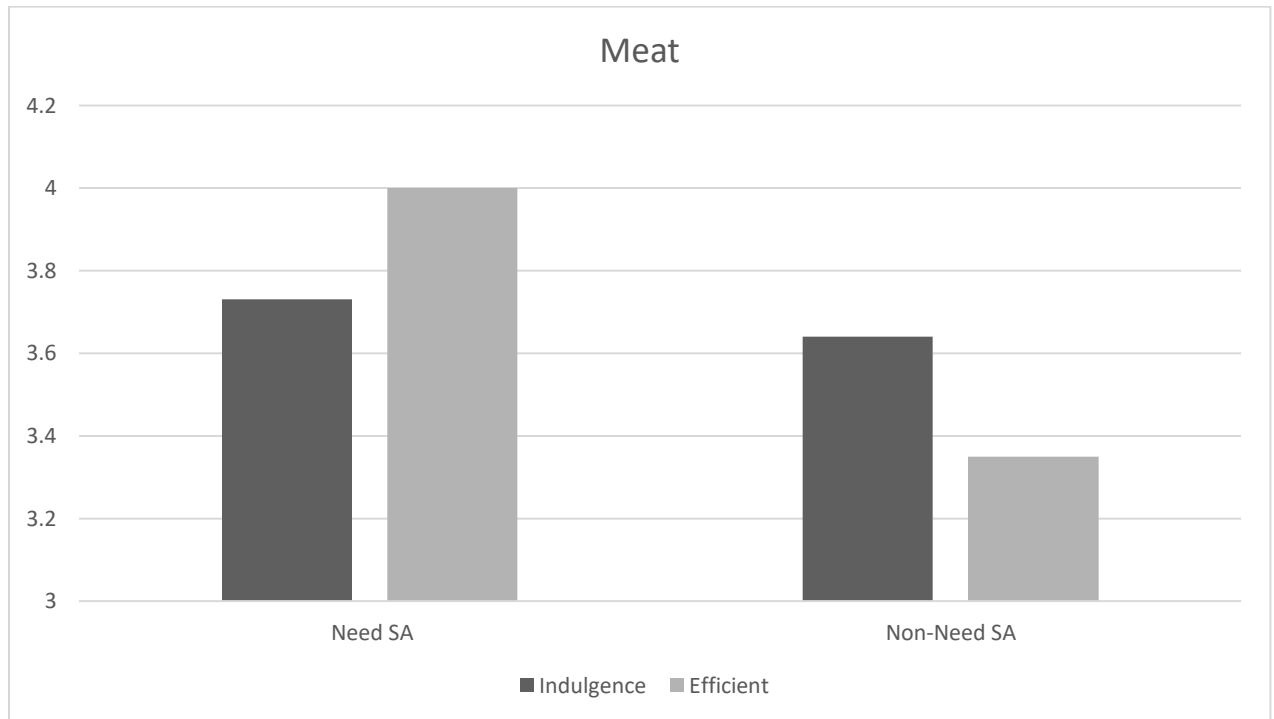
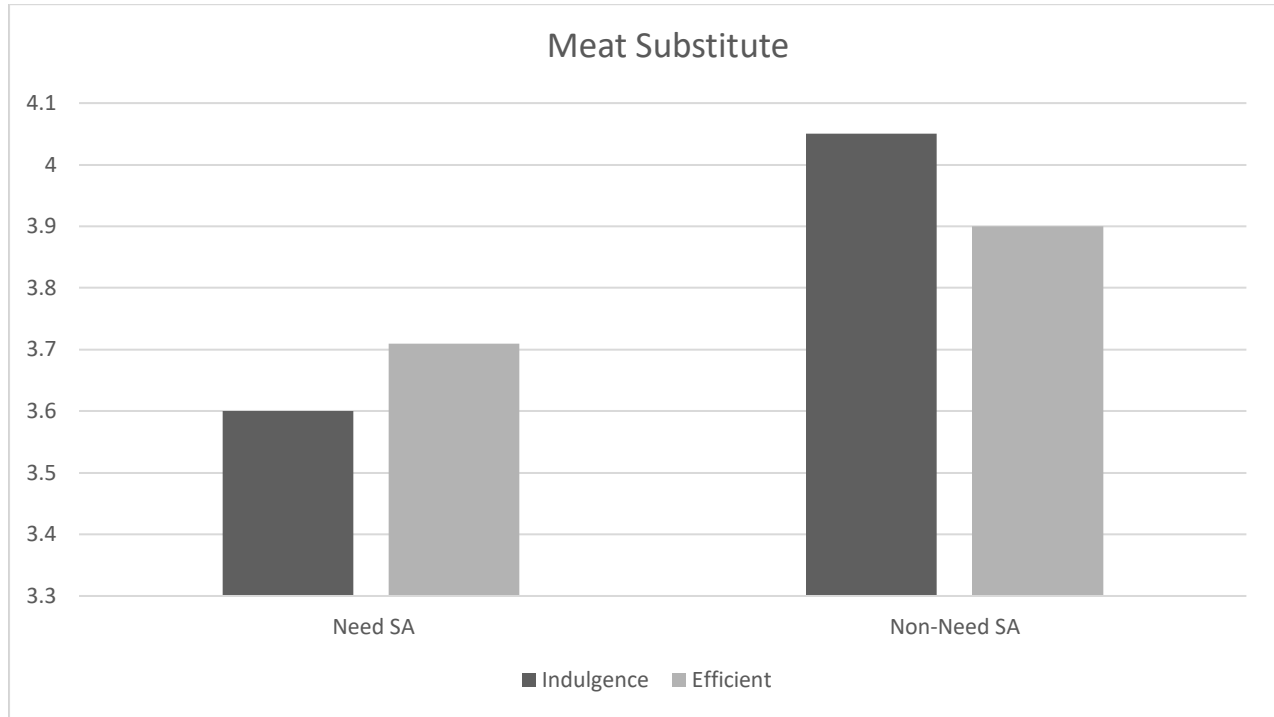
There is no significant interaction between self-image and social acceptance ($F = .51, p = .960$).

There is no interaction between self-image and product type ($F = .00, p = .990$).

There is no interaction between social acceptance and product type ($F = .94, p = .336$).

The third-order interaction between self-image, social acceptance, and product type was also not significant ($F = .04, p = .835$).

	Self-Image	Social Acceptance	Mean	Std. Deviation	N
Meat Substitute	Indulgent	Need	3.60	1.595	15
		Non-Need	4.05	2.380	22
		Total	3.86	2.084	37
	Efficient	Need	3.71	2.053	24
		Non-Need	3.90	2.049	20
		Total	3.80	2.030	44
	Total	Need	3.67	1.868	39
		Non-Need	3.98	2.203	42
		Total	3.83	2.042	81
Meat	Indulgent	Need	3.73	2.374	15
		Non-Need	3.64	2.128	22
		Total	3.68	2.199	37
	Efficient	Need	4.00	1.888	24
		Non-Need	3.35	1.424	20
		Total	3.70	1.706	44
	Total	Need	3.90	2.062	39
		Non-Need	3.50	1.811	42
		Total	3.69	1.934	81



4. Discussion

This research aimed to explore self-image, social acceptance, and product type impact consumer perceptions and behavioral intentions towards meat vs. meat substitutes. The outcomes have essential implications for product development and marketing strategies. However, it is crucial to recognize certain limitations of the study that may impact its interpretation.

Regarding health perceptions, this study revealed that personality traits like "efficient" or "indulgent" significantly affect how different products are perceived by consumers. For instance, efficient individuals preferred regular meat over substitutes as the latter was perceived less nutritious related to their adherence to practicality norms while the indulgent group leaned towards novelty-seeking behavior rating of genuine meat lower comparatively but giving higher ratings to meat- substitutes though it was considered less healthy. However, there were also significant interaction effects between self-image and product type, social acceptance and product type, and a third-order interaction among self-image, social acceptance, and product type. Specifically, individuals with an "efficient" self-image tended to rate meat higher in terms of health perception, while rating meat substitutes lower. Conversely, individuals with an "indulgent" self-image rated meat substitutes higher in health perception when they had a high need for social acceptance, and lower when they had a low need. The opposite pattern was observed for meat.

In terms of sustainability perception, product type also had a significant effect, with meat being rated higher overall than meat substitutes. This fact is interesting since in general substitutes should be perceived as more sustainable as they are. This is going to be discussed later in the discussion. Similar to health perception, there were significant interaction effects between self-image and product type, social acceptance and product type, and a third-order interaction among self-image, social acceptance, and product type. Individuals with an "efficient" self-image tended to rate meat higher in terms of sustainability, while rating meat substitutes lower. Conversely, individuals with an "indulgent" self-image rated meat substitutes higher in sustainability perception when they had a high need for social acceptance, and lower when they had a low need. The opposite pattern was observed for meat.

However, self-image and social acceptance did not have a significant effect on satisfaction, purchase intention, recommendation intention, utilitarian product perception, or hedonic product perception. Likewise, the type of product did not significantly impact these variables. Furthermore, there were no significant interaction effects observed between self-image and social acceptance, self-image and product type, social acceptance and product type, or among self-image, social acceptance, and product type.

Implications

The study also confirmed previous research, which will be explained in more detail in this paragraph. The findings revealed a notable impact of product type on health perception and sustainability perception. This supports previous research that has highlighted the influence of product characteristics, such as health-related attributes and sustainability features, on consumer perceptions (Toth, 2014). Additionally, the literature highlights the impact of social factors, such as social acceptance, on consumer behavior (Mullee et al., 2017). The interaction effects found between social acceptance and product type further emphasize the combined influence of these factors on consumer perceptions. It suggests that when social acceptance aligns with certain product types, it can amplify the impact on health and sustainability perceptions.

The significant interaction effects between self-image, social acceptance, and product type on health perception indicate that the way individuals perceive the healthiness of meat and meat substitutes is influenced by their self-image and social acceptance needs. To leverage these findings, marketers can emphasize health-related attributes and benefits specific to meat and meat substitutes that align with the target consumers' self-image and desire for social acceptance. Highlighting the nutritional value, sustainability aspects, or health-related certifications of these products could influence consumers' health perception and encourage healthier purchasing decisions.

The situation is similar with sustainability perception. The significant interaction effects between self-image, social acceptance, and product type on sustainability perception suggest that consumers' perceptions of sustainability are shaped by these factors. Marketers can capitalize on

these findings by communicating the eco-friendly aspects and sustainable practices associated with both meat and meat substitutes, specifically targeting individuals with indulgent self-images and a higher need for social acceptance. Framing the sustainability benefits of these products in a way that aligns with consumers' self-image and social aspirations may enhance sustainability perception and increase the likelihood of choosing environmentally conscious options.

The study also has some implications on product development and innovation: The lack of significant main effects for product type on overall satisfaction, purchase intention, recommendation intention, utilitarian product perception, or hedonic product perception suggests that consumer perception and preference are not solely driven by the type of product (meat vs. meat substitute). However, the significant interaction effects on health perception and sustainability perception highlight the importance of considering these dimensions when developing and promoting new meat and meat substitute products. Understanding the specific attributes and features that influence health and sustainability perception can guide product innovation and marketing strategies to meet consumer expectations and preferences.

These findings also suggest that when social acceptance aligns with specific product types, it can have a magnifying effect on consumers' perceptions of health and sustainability. This has direct relevance to the concept of "word of mouth" and the power of social influence. Marketers should be mindful of the long-term effects that social acceptance can have on consumer behavior. When certain product types become socially desirable or associated with positive health and sustainability perceptions, they can create a lasting impact in consumers' minds. Over time, this social pressure and influence can shape consumer behaviors and preferences. Understanding the role of social acceptance in consumer decision-making is crucial for marketers aiming to promote healthier and more sustainable choices. By recognizing the influence of social factors on product perception and aligning marketing strategies with social acceptance dynamics, marketers can leverage the power of word of mouth and social influence to drive positive consumer behaviors. Furthermore, this emphasizes the importance of creating an environment where positive social norms and acceptance are fostered around health and sustainability. By creating a social context that values and supports these behaviors, marketers can tap into the collective power of social influence to drive widespread adoption of healthier and more sustainable choices.

5. Limitations & Future Research

The present study adds to the existing body of research by demonstrating that self-image and social acceptance may not have direct effects on consumer satisfaction, purchase intention, recommendation intention, utilitarian product perception, or hedonic product perception. However, product type was found to significantly impact health perception and sustainability perception. Furthermore, significant interaction effects were observed for health perception and sustainability perception, highlighting the interplay between self-image, social acceptance, and product type in shaping these specific consumer perceptions. Future research should further explore the underlying mechanisms and implications of these findings to enhance the understanding of consumer behavior in diverse contexts. It can also build upon the findings to explore the underlying mechanisms and develop targeted interventions and marketing strategies that align with consumers' self-image, social acceptance, and product preferences in promoting healthier and more sustainable choices.

The study has its limitations, in particular the misguided manipulation and the lack of significance. Reasons for this may include the small survey group, experimental design, and so on. These reasons will be discussed in the following and will also give some ideas for future research in this area. For example, the lack of significant main effects for self-image and social acceptance suggests that targeting these factors alone may not directly impact overall satisfaction, purchase intention, recommendation intention, utilitarian product perception, or hedonic product perception.

Those findings underscore the need for integrated approaches in consumer research. Examining individual variables in isolation may not capture the full picture of consumer behavior. By considering the interplay of multiple variables and their interactive effects, researchers can gain a more comprehensive understanding of consumer decision-making processes and develop more robust theoretical frameworks.

This raises the question whether the choice as well as the execution of the design can be improved in future research. They could for example, replicate the study with a larger and more diverse sample to enhance the generalizability of the findings. The sample size and characteristics

of the study affects the statistical relevance and generalizability of the findings. Increasing the sample size and ensuring diverse representation across demographics would enhance the reliability and external validity of the results. One reason for too many dropouts during the survey may have been the size of the survey. Many people simply went through the survey on the go and realized that it was taking too long for them. These factors could be improved in another study: For example, the survey could be prepared in a survey center where the respondents have to answer the questions in a neutral environment.

Comparing the effects of self-image, social acceptance, and product type across different cultural contexts could shed light on cultural variations in consumer perceptions and preferences. Cultural factors may influence the importance of self-image and social acceptance in shaping consumer behavior, leading to different patterns of interactions with product type. Also, because the implementation and development of meat substitutes differs in different regions of the world. In the present study, the population of participants is very limited, especially in terms of country of origin. Future research should include also participants from different demographic backgrounds and cultural contexts may help identify potential variations in the effects of self-image, social acceptance, and product type on consumer perceptions. The participants in the study do not fully represent the diverse population of consumers. The generalizability of the findings could be limited to the specific characteristics and demographics of the sample used. Future research should aim for more diverse and representative samples to enhance external validity.

The study relied on self-report measures, which are subject to potential biases such as social desirability or recall biases. Future research could consider incorporating behavioral measures or physiological responses to complement self-report data and provide a more comprehensive understanding of consumer perceptions and behaviors. This also suggests that one could adapt the type of experimental design. For example, could a combination of the quantitative research with qualitative research (interviews or focus groups), offer a more in-depth understanding of the underlying motivations and decision-making processes related to self-image, social acceptance, and product type. Qualitative research can provide rich insights into consumers' subjective experiences and uncover nuanced factors that may influence their perceptions. To enhance the external validity of the findings, future research could also be conducted in real-world settings

such as actual retail environments or through longitudinal studies tracking consumer behavior over an extended period. This would provide insights into how self-image, social acceptance, and product type interact and influence consumer perceptions and behaviors in natural and dynamic contexts.

Future research could also investigate potential mediating and moderating variables since they could provide a deeper understanding of the underlying mechanisms and conditions through which self-image, social acceptance, and product type influence consumer decisions. For example, variables such as personal values, environmental attitudes, or product knowledge could play a role in shaping health and sustainability perceptions.

The study focused on the general context of meat and meat substitutes, limiting the approach to other product types. Different products may elicit different psychological and perceptual responses, and thus, the effects of self-image and social acceptance may vary across different contexts and product types. The images presented in the survey may not have been clear enough either. Here future research could also use better pictures, product categorization or similar. Because not every meat is equally the same as not every substitute is.

6. Conclusion

The study highlights the complex relationship between self-image, social acceptance, and product type, suggesting that these factors interact to shape consumer behaviours. To encourage healthier and more sustainable purchasing decisions, marketers can focus on promoting specific health-related attributes and sustainability features of meat and meat substitutes that align with consumers' self-image and social aspirations.

In conclusion, this study investigates how a person's self-image and need for social acceptance affect their preference for meat substitutes compared to regular meat. The results show that self-image and social acceptance do not directly impact overall satisfaction, purchase intention, recommendation intention, utilitarian product perception,

or hedonic product perception. However, the type of product (meat or meat substitute) does significantly influence health perception and sustainability perception.

Furthermore, the study emphasizes the importance of considering multiple variables and contextual factors in consumer research. Understanding the role of social acceptance and creating a supportive social environment for health and sustainability behaviors is crucial. The study has limitations, such as a small and limited sample size, potential biases in self-report measures, and a focus on a specific cultural context. To enhance the validity and applicability of the findings, future research should involve larger and more diverse samples, explore cultural differences, use behavioral and physiological measures, and investigate additional variables that mediate or moderate the relationships.

In summary, this study contributes to understanding how self-image, social acceptance, and product type influence consumer preferences and perceptions. The findings provide valuable insights for marketers to develop effective marketing strategies, innovate products, and promote healthier and more sustainable choices in the food industry.

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Appendix

1. Output Repeated Measures Satisfaction:

Tests of Within-Subjects Effects

	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Producttype	Sphericity Assumed	.443	1	.443	.128	.722
	Greenhouse-Geisser	.443	1.000	.443	.128	.722
	Huynh-Feldt	.443	1.000	.443	.128	.722
	Lower-bound	.443	1.000	.443	.128	.722
Producttype* SI	Sphericity Assumed	2.332	1	2.332	.673	.414
	Greenhouse-Geisser	2.332	1.000	2.332	.673	.414
	Huynh-Feldt	2.332	1.000	2.332	.673	.414
	Lower-bound	2.332	1.000	2.332	.673	.414
Producttype* SA	Sphericity Assumed	1.474	1	1.474	.426	.516
	Greenhouse-Geisser	1.474	1.000	1.474	.426	.516

	Huynh-Feldt	1.474	1.000	1.474	.426	.516
	Lower-bound	1.474	1.000	1.474	.426	.516
Producttype * SI * SA	Sphericity Assumed	.075	1	.075	.022	.883
	Greenhouse-Geisser	.075	1.000	.075	.022	.883
	Huynh-Feldt	.075	1.000	.075	.022	.883
	Lower-bound	.075	1.000	.075	.022	.883
Error(Product type)	Sphericity Assumed	266.663	77	3.463		
	Greenhouse-Geisser	266.663	77.000	3.463		
	Huynh-Feldt	266.663	77.000	3.463		
	Lower-bound	266.663	77.000	3.463		

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	3059.027	1	3059.027	1087.639	<.001
SelfImage	2.169	1	2.169	.771	.383
SocialAcceptance	6.871	1	6.871	2.443	.122
SI * SA	.815	1	.815	.290	.592
Error	216.566	77	2.813		

2. Output Repeated Measures Purchase Intention:

Tests of Within-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Producttype	Sphericity Assumed	1.268	1	1.268	.227
	Greenhouse-Geisser	1.268	1.000	1.268	.227

	Huynh-Feldt	1.268	1.000	1.268	.227	.635
	Lower-bound	1.268	1.000	1.268	.227	.635
Producttype* SI	Sphericity Assumed	11.190	1	11.190	1.999	.161
	Greenhouse-Geisser	11.190	1.000	11.190	1.999	.161
	Huynh-Feldt	11.190	1.000	11.190	1.999	.161
	Lower-bound	11.190	1.000	11.190	1.999	.161
Producttype* SA	Sphericity Assumed	1.434	1	1.434	.256	.614
	Greenhouse-Geisser	1.434	1.000	1.434	.256	.614
	Huynh-Feldt	1.434	1.000	1.434	.256	.614
	Lower-bound	1.434	1.000	1.434	.256	.614
Producttype * SI * SA	Sphericity Assumed	3.422	1	3.422	.611	.437
	Greenhouse-Geisser	3.422	1.000	3.422	.611	.437
	Huynh-Feldt	3.422	1.000	3.422	.611	.437
	Lower-bound	3.422	1.000	3.422	.611	.437
Error(Product type)	Sphericity Assumed	430.986	77	5.597		
	Greenhouse-Geisser	430.986	77.000	5.597		
	Huynh-Feldt	430.986	77.000	5.597		
	Lower-bound	430.986	77.000	5.597		

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	2704.998	1	2704.998	990.741	<.001
SelfImage	6.649	1	6.649	2.435	.123
SocialAcceptance	2.517	1	2.517	.922	.340
SI * SA	6.576	1	6.576	2.408	.125
Error	210.231	77	2.730		

3. Output Repeated Measures Recommendation intention:

Self-Image	Social	Mean	Std.	N
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		Acceptance		Deviation	
Meat Substitute	Indulgent	Need	3.87	2.066	15
		Non-Need	3.86	2.210	22
		Total	3.86	2.123	37
	Efficient	Need	4.12	1.963	24
		Non-Need	3.60	1.903	20
		Total	3.89	1.932	44
	Total	Need	4.03	1.980	39
		Non-Need	3.74	2.049	42
		Total	3.88	2.009	81
Meat	Indulgent	Need	3.07	2.219	15
		Non-Need	3.95	2.149	22
		Total	3.59	2.192	37
	Efficient	Need	4.62	1.837	24
		Non-Need	4.20	1.576	20
		Total	4.43	1.717	44
	Total	Need	4.03	2.109	39
		Non-Need	4.07	1.879	42
		Total	4.05	1.981	81

Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Producttype	Sphericity Assumed	.375	1	.375	.083	.774
	Greenhouse-Geisser	.375	1.000	.375	.083	.774
	Huynh-Feldt	.375	1.000	.375	.083	.774
	Lower-bound	.375	1.000	.375	.083	.774
Producttype* SI	Sphericity Assumed	8.030	1	8.030	1.779	.186
	Greenhouse-Geisser	8.030	1.000	8.030	1.779	.186
	Huynh-Feldt	8.030	1.000	8.030	1.779	.186
	Lower-bound	8.030	1.000	8.030	1.779	.186
Producttype* SA	Sphericity Assumed	2.409	1	2.409	.534	.467
	Greenhouse-Geisser	2.409	1.000	2.409	.534	.467
	Huynh-Feldt	2.409	1.000	2.409	.534	.467
	Lower-bound	2.409	1.000	2.409	.534	.467
Producttype *	Sphericity Assumed	1.535	1	1.535	.340	.561

SI * SA	Greenhouse-Geisser	1.535	1.000	1.535	.340	.561
	Huynh-Feldt	1.535	1.000	1.535	.340	.561
	Lower-bound	1.535	1.000	1.535	.340	.561
	Sphericity Assumed	347.509	77	4.513		
	Greenhouse-Geisser	347.509	77.000	4.513		
	Huynh-Feldt	347.509	77.000	4.513		
	Lower-bound	347.509	77.000	4.513		

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	2403.933	1	2403.933	703.939	<.001
SelfImage	7.936	1	7.936	2.324	.131
SocialAcceptance	.010	1	.010	.003	.956
SI * SA	8.260	1	8.260	2.419	.124
Error	262.953	77	3.415		

4. Output Repeated Measures Health Perception:

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Producttype	Sphericity Assumed	9.164	1	9.164	4.721	.033
	Greenhouse-Geisser	9.164	1.000	9.164	4.721	.033
	Huynh-Feldt	9.164	1.000	9.164	4.721	.033
	Lower-bound	9.164	1.000	9.164	4.721	.033
Producttype* SI	Sphericity Assumed	37.014	1	37.014	19.070	<.001
	Greenhouse-Geisser	37.014	1.000	37.014	19.070	<.001
	Huynh-Feldt	37.014	1.000	37.014	19.070	<.001
	Lower-bound	37.014	1.000	37.014	19.070	<.001
Producttype* SA	Sphericity Assumed	17.220	1	17.220	8.872	.004
	Greenhouse-Geisser	17.220	1.000	17.220	8.872	.004
	Huynh-Feldt	17.220	1.000	17.220	8.872	.004

	Lower-bound	17.220	1.000	17.220	8.872	.004
Producttype * SI * SA	Sphericity Assumed	32.973	1	32.973	16.988	<.001
	Greenhouse-Geisser	32.973	1.000	32.973	16.988	<.001
	Huynh-Feldt	32.973	1.000	32.973	16.988	<.001
	Lower-bound	32.973	1.000	32.973	16.988	<.001
Error(Product type)	Sphericity Assumed	149.455	77	1.941		
	Greenhouse-Geisser	149.455	77.000	1.941		
	Huynh-Feldt	149.455	77.000	1.941		
	Lower-bound	149.455	77.000	1.941		

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	2342.082	1	2342.082	890.102	<.001
SelfImage	5.186	1	5.186	1.971	.164
SocialAcceptance	.368	1	.368	.140	.710
SI * SA	1.428	1	1.428	.543	.464
Error	202.606	77	2.631		

5. Output Repeated Measures Sustainability Perception:

Tests of Within-Subjects Effects

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Producttype	Sphericity Assumed	60.597	1	60.597	27.272	<.001
	Greenhouse-Geisser	60.597	1.000	60.597	27.272	<.001
	Huynh-Feldt	60.597	1.000	60.597	27.272	<.001
	Lower-bound	60.597	1.000	60.597	27.272	<.001
Producttype*	Sphericity Assumed	54.129	1	54.129	24.361	<.001

SI	Greenhouse-Geisser	54.129	1.000	54.129	24.361	<.001
	Huynh-Feldt	54.129	1.000	54.129	24.361	<.001
	Lower-bound	54.129	1.000	54.129	24.361	<.001
Producttype* SA	Sphericity Assumed	35.486	1	35.486	15.971	<.001
	Greenhouse-Geisser	35.486	1.000	35.486	15.971	<.001
	Huynh-Feldt	35.486	1.000	35.486	15.971	<.001
	Lower-bound	35.486	1.000	35.486	15.971	<.001
Producttype * SI * SA	Sphericity Assumed	49.017	1	49.017	22.061	<.001
	Greenhouse-Geisser	49.017	1.000	49.017	22.061	<.001
	Huynh-Feldt	49.017	1.000	49.017	22.061	<.001
	Lower-bound	49.017	1.000	49.017	22.061	<.001
Error(Product type)	Sphericity Assumed	171.087	77	2.222		
	Greenhouse-Geisser	171.087	77.000	2.222		
	Huynh-Feldt	171.087	77.000	2.222		
	Lower-bound	171.087	77.000	2.222		

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	2422.821	1	2422.821	1028.142	<.001
SelfImage	.144	1	.144	.061	.805
SocialAcceptance	1.352	1	1.352	.574	.451
SI * SA	.014	1	.014	.006	.939
Error	181.451	77	2.357		

6. Output Repeated Measures Utilitarian Product Perception

Tests of Within-Subjects Effects

	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Producttype	Sphericity Assumed	2.863	1	2.863	.693	.408
	Greenhouse-Geisser	2.863	1.000	2.863	.693	.408
	Huynh-Feldt	2.863	1.000	2.863	.693	.408
	Lower-bound	2.863	1.000	2.863	.693	.408
Producttype* SI	Sphericity Assumed	.490	1	.490	.119	.732
	Greenhouse-Geisser	.490	1.000	.490	.119	.732
	Huynh-Feldt	.490	1.000	.490	.119	.732
	Lower-bound	.490	1.000	.490	.119	.732
Producttype* SA	Sphericity Assumed	10.341	1	10.341	2.502	.118
	Greenhouse-Geisser	10.341	1.000	10.341	2.502	.118
	Huynh-Feldt	10.341	1.000	10.341	2.502	.118
	Lower-bound	10.341	1.000	10.341	2.502	.118
Producttype * SI * SA	Sphericity Assumed	10.008	1	10.008	2.421	.124
	Greenhouse-Geisser	10.008	1.000	10.008	2.421	.124
	Huynh-Feldt	10.008	1.000	10.008	2.421	.124
	Lower-bound	10.008	1.000	10.008	2.421	.124
Error(Product type)	Sphericity Assumed	318.287	77	4.134		
	Greenhouse-Geisser	318.287	77.000	4.134		
	Huynh-Feldt	318.287	77.000	4.134		
	Lower-bound	318.287	77.000	4.134		

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	2425.158	1	2425.158	711.542	<.001
SelfImage	8.192	1	8.192	2.404	.125
SocialAcceptance	1.547	1	1.547	.454	.503
SI * SA	.182	1	.182	.054	.818
Error	262.440	77	3.408		

7. Output Repeated Measures Hedonic Product Perception:

Tests of Within-Subjects Effects

	Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Producttype	Sphericity Assumed	.700	1	.700	.140	.710
	Greenhouse-Geisser	.700	1.000	.700	.140	.710
	Huynh-Feldt	.700	1.000	.700	.140	.710
	Lower-bound	.700	1.000	.700	.140	.710
Producttype* SI	Sphericity Assumed	.001	1	.001	.000	.990
	Greenhouse-Geisser	.001	1.000	.001	.000	.990
	Huynh-Feldt	.001	1.000	.001	.000	.990
	Lower-bound	.001	1.000	.001	.000	.990
Producttype* SA	Sphericity Assumed	4.700	1	4.700	.939	.336
	Greenhouse-Geisser	4.700	1.000	4.700	.939	.336
	Huynh-Feldt	4.700	1.000	4.700	.939	.336
	Lower-bound	4.700	1.000	4.700	.939	.336
Producttype * SI * SA	Sphericity Assumed	.220	1	.220	.044	.835
	Greenhouse-Geisser	.220	1.000	.220	.044	.835
	Huynh-Feldt	.220	1.000	.220	.044	.835
	Lower-bound	.220	1.000	.220	.044	.835
Error(Product type)	Sphericity Assumed	385.480	77	5.006		
	Greenhouse-Geisser	385.480	77.000	5.006		
	Huynh-Feldt	385.480	77.000	5.006		
	Lower-bound	385.480	77.000	5.006		

Tests of Between-Subjects Effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	2204.277	1	2204.277	706.008	<.001
SelfImage	.008	1	.008	.003	.960

SocialAcceptance	.030	1	.030	.009	.923
SI * SA	1.597	1	1.597	.512	.477
Error	240.407	77	3.122		

8. Manipulation Checks

Survey form: Indulgent Self-image x Need for Social Acceptance

Manipulation Check SI	N	%
1	4	26.7%
2	3	20.0%
3	1	6.7%
4 (right answer)	5	33.3%
Missing System	2	13.3%

Manipulation Check SA	N	%
1	2	13.3%
2	4	26.7%
3 (right answer)	9	60%
4	0	0%
Missing System	0	0%

Survey form: Indulgent Self-image x Non-Need for Social Acceptance

Manipulation Check SI	N	%
1	7	31.8%
2	1	4.5%
3	3	13.6%
4 (right answer)	11	50.0%
Missing System	0	0%

Manipulation Check SA	N	%
1	5	22.7%
2 (right answer)	12	54.5%
3	1	4.5%
4	4	18.2%
Missing System	0	0

Survey form: Efficient Self-image x Need for Social Acceptance

Manipulation Check SI	N	%
1 (right answer)	18	75.0%
2	4	16.7%
3	1	4.2%
4	0	0%
Missing System	1	4.2%

Manipulation Check SA	N	%
1	3	12.5%
2	4	16.7%
3	1	4.2%
4 (right answer)	15	62.5%
Missing System	1	4.2%

Survey form: Efficient Self-image x Non-Need for Social Acceptance

Manipulation Check SI	N	%
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1 (right answer)	14	70.0%
2	1	5.0%
3	2	10.0%
4	3	15.0%
Missing System	0	0%

Manipulation Check SA	N	%
1	3	15.0%
2 (right answer)	14	70.0%
3	3	15.0%
4	0	0%
Missing System	0	0%

9. Control Variable Means per Group

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Diet_CV	15	1	7	5.53	1.885
FrequencyMreal_CV	15	1	6	3.33	1.877
FrequencyMSubst_CV	15	1	4	3.07	.961
Healthydiet_CV	15	2	7	5.20	1.265
Environmentalimpact_CV	15	2	6	4.80	1.146
Animal treatment_CV	15	2	7	5.47	1.506
SocialAccpetance_CV	15	1	6	3.93	1.438
SocialEnvironment_CV	15	4	7	5.67	.724
SocialPressure_CV	15	1	5	2.87	1.187
Utilitarian_CV	15	2	7	5.00	1.195
Hedonic_CV	15	4	7	5.53	.834
Valid N (listwise)	15				

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Diet_CV	22	1	8	6.14	1.583
FrequencyMreal_CV	22	1	6	3.68	1.783
FrequencyMSubst_CV	22	1	5	2.86	1.356
Healthydiet_CV	22	1	7	5.05	1.618
Environmentalimpact_CV	22	1	7	5.05	1.618
Animal treatment_CV	22	3	7	5.77	1.193
SocialAccpetance_CV	22	1	7	3.91	1.797
SocialEnvironment_CV	22	3	7	5.64	1.217
SocialPressure_CV	22	1	6	3.00	1.480
Utilitarian_CV	22	3	7	5.32	.839
Hedonic_CV	22	4	7	5.77	.922
Valid N (listwise)	22				

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Diet_CV	24	1	8	6.00	1.745
FrequencyMreal_CV	24	1	6	3.75	1.452
FrequencyMSubst_CV	24	1	5	3.13	1.296
Healthydiet_CV	24	3	7	5.21	1.215
Environmentalimpact_CV	24	2	7	5.13	1.227
Animal treatment_CV	24	1	7	5.17	1.606
SocialAccpetance_CV	24	1	7	4.21	1.444
SocialEnvironment_CV	24	3	7	5.83	1.239

SocialPressure_CV	24	1	7	3.46	1.668
Utilitarian_CV	24	3	7	5.17	1.090
Hedonic_CV	24	2	7	5.50	1.351
Valid N (listwise)	24				

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Diet_CV	20	4	7	6.35	.933
FrequencyMreal_CV	20	1	6	3.55	1.468
FrequencyMSubst_CV	20	1	4	3.00	.973
Healthydiet_CV	20	2	7	5.05	1.356
Environmentalimpact_CV	20	3	6	4.80	.951
Animal treatment_CV	20	3	7	5.20	1.240
SocialAccpetance_CV	20	1	7	4.35	1.872
SocialEnvironment_CV	20	5	7	6.05	.686
SocialPressure_CV	20	1	6	3.35	1.927
Utilitarian_CV	20	3	7	5.35	.933
Hedonic_CV	20	3	7	5.10	.968
Valid N (listwise)	20				

10. Survey Example: Efficient Self Image & No Need for Social Acceptance

Your participation in this study involves completing a survey that will take approximately 10 minutes. You will be presented with a series of hypothetical product scenarios and asked to choose based on preferences. Your responses will be kept confidential and anonymous, and your participation in this study is voluntary. Thank you for considering participation in this study. If you have any questions or concerns, please contact me via: s-mjerono@ucp.pt

Imagine yourself starting a new project or task. You feel confident and capable, knowing that you have the necessary skills and knowledge to complete it efficiently. You approach the task with an on-practicability-focused mindset, identifying the needs and finding practical and efficient solutions. You feel a sense of satisfaction and accomplishment as you

successfully complete the task, knowing that you used your time and resources effectively.

 Please keep in mind that throughout the survey your goal is to have food that gives you a sense of being efficient and seeing its practical use.

 Before you continue, please indicate how you focused you see yourself on being practical and efficient.

Efficiency and pragmatism in life events are often needed in social gatherings, moments where we are with other people.

 Imagine yourself in a situation where you have the opportunity to express your true opinions and beliefs without fear of judgment or rejection from others.You feel confident and secure in yourself, and don't feel the need to seek approval or validation from anyone else.

 Please keep this mindset in mind throughout the survey when making your choices.

Please imagine now that you are going to host a dinner party with your friends tomorrow. For that purpose, you are shopping at your local grocery store to buy some groceries for the dinner. You are now in the meat aisle and you see two options: a meat product and a meat substitute product.

 When making your choice between these products, please imagine yourself in a mindset, which is on-practicability-focused. You are comfortable with who you are and confident in your own choices.

 Choose the option that would let you feel the most practical and best reflects your personal taste without considering how it may be perceived by others.

Meat Product

Meat Subtitute

Which one do you prefer?



Showing Product Type (Figure 1 and Figure 2). One block for each.

Q2 How satisfied do you think will you be with this product?

Q3 How likely are you to purchase this product?

Q4 Would you recommend this product to a friend?

Q5 How likely is it that you are going to purchase this product again?

Q6 How well do you think is this product for your health?

Q7 How well do you think is this product in terms of sustainability?

Q8 How much do you agree with the following statement: "I would choose this product because it meets my practical needs."

Q9 How much do you agree with the following statement: "I would choose this product because it provides me with enjoyment or pleasure."

- ☐ Not agree at all 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ Totally agree 7

End of Block: Depended Variables - Meat substitute Product

Start of Block: Control Variables

Q63 Which of the following best describes your current diet?

- ☐ Vegan
 - ☐ Vegetarian
 - ☐ Pescatarian (vegetarian + seafood)
 - ☐ Flexitarian (mostly vegetarian with occasional meat consumption)
 - ☐ Omnivore (regularly eat both meat and plant-based foods)
 - ☐ Other (please specify) _____
-

Consumption How often do you consume meat products?

- ☐ Never
- ☐ Rarely (once a month or less)
- ☐ Occasionally (2-3 times a month)
- ☐ Sometimes (1-2 times a week)
- ☐ Often (3-4 times a week)
- ☐ Very often (5 or more times a week)

Meat Sub How often do you consume meat substitutes?

- ☐ Never
 - ☐ Rarely (less than once a month)
 - ☐ Occasionally (1-2 times a month)
 - ☐ Sometimes (1-2 times a week)
 - ☐ Often (3-4 times a week)
 - ☐ Very often (5 or more times a week)
-

Diet How important is it for you to eat a healthy diet?

- ☐ Not important at all 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ Extremely important 7
-

Environmental impact How important is it for you to consider the environmental impact of the products you consume?

- ☐ Not important at all 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ Extremely important 7
-

Animal treatment How important is it for you to consider the ethical treatment of animals in the production of the products you consume?

- ☐ Not important at all 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ Extremely important 7
-

Q47 How important is it for you to feel accepted by your peers and social group?

- ☐ Not important at all 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ Extremely important 7
-

Q51 To what extent do you feel included in your current social environment?

- ☐ Not included at all 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ Completely included 7
-

Social pressure To what extent do you feel pressure to conform to the opinions and behaviors of those around you in social situations?

- ☐ Don't feel pressure at all 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ Feeling extremely pressured 7
-

Q49 To what extent do you see yourself as a practical and efficient person?

- ☐ Not at all practical & efficient 1
 - ☐ 2
 - ☐ 3
 - ☐ 4
 - ☐ 5
 - ☐ 6
 - ☐ Extremely practical & efficient 7
-

Q50 To what extent do you see yourself as someone who enjoys pleasure and indulgence?

- ☐ Not at all pleasure enjoying & indulgent 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ Extremely pleasure enjoying & indulgent7

End of Block: Control Variables

Start of Block: Manipulation Check

ManiCheck SI In this survey you were asked to think of yourself as:

- ☐ A person who is practical
 - ☐ A person who is concerned with the morality of others' behaviors
 - ☐ A person who is connected to nature
 - ☐ A person who is fun and pleasure loving
-

Q62 In this survey you were asked to think of yourself as:

- ☐ A person that helps their friends
- ☐ A person that is independent of other approval
- ☐ A person that is competitive
- ☐ A person that is aware of the need of approval from others

End of Block: Manipulation Check

Start of Block: Demographics

Q102 Please take a moment to answer the following demographic questions to help us better understand our survey participants.

Age What is your age?

- ☐ Under 18 years old
- ☐ 18-24 years old
- ☐ 25-34 years old
- ☐ 35-44 years old
- ☐ 45-54 years old
- ☐ 55-64 years old
- ☐ 65 years or older

Gender What is your gender?

- ☐ Male
- ☐ Female
- ☐ Non-binary / third gender
- ☐ Prefer not to say

Education What is your highest level of education completed?

- ☐ Less than high school diploma
- ☐ High school diploma or equivalent
- ☐ Some college or associate degree
- ☐ Bachelor's degree
- ☐ Graduate or professional degree
- ☐ Other (please specify) _____

Employment What is your current employment status?

- ☐ Employed full-time
- ☐ Employed part-time
- ☐ Unemployed and looking for work
- ☐ Unemployed and not looking for work
- ☐ Student
- ☐ Retired
- ☐ Other (please specify) _____

Income What is your annual household income?

- ☐ Less than \$25,000
- ☐ \$25,000 - \$49,999
- ☐ \$50,000 - \$74,999
- ☐ \$75,000 - \$99,999
- ☐ \$100,000 - \$149,999
- ☐ \$150,000 or more

Nationality In which country did you live the last three months?

Q64 Thank you for taking the time to complete this survey!

Your feedback is greatly appreciated and will help us to better understand people's opinions on innovations in the meat industry. Your responses are completely anonymous and confidential. If you have any questions or comments, please feel free to use the text entry below.

Thanks again for your participation!
