Packed with promises:

A study on consumers' awareness of washing on supermarket products

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Abstract

As consumers' concern regarding their health, the environment and animal welfare is growing, the marketing industry tries to adhere to these standards. However, misleading advertising techniques are often used to make a consumer think the product adheres to these values, when it does not. This is the concept of washing. This study aims to research to what extent consumers are aware that they are being green-, welfare- or health washed. A qualitative study using funneled semistructured in-depth interviews was used to answer the research question. Twenty interviews were conducted with a diverse group of consumers from the Netherlands. The results of these interviews show that the majority of the participants are not aware of washing practices. The few participants who do mention the possibility of being washed, do so as they were further steered into the direction of thinking about the influence of packaging on their purchasing decisions. None of the participants mentioned a possibility of being washed when being asked about a general shopping experience, one participant mentioned this when explaining how they choose a product, two participants when they focus on the packaging of products and four participants when focusing on the possibility of being deceived. Lastly, when explaining what washing is, eighteen participants mentioned that they have heard of the concept before. The vast majority of participants who do not mention a possibility of being washed, mention that they value their health, the environment and animal welfare and have the intention to buy products that align with these values. This encouraging finding shows a first step towards more sustainable, animal friendly and health behavior choices, but also that there is a gap between the intentions of consumers and the awareness they have during shopping in the context of washing. These findings contribute to existing literature that concludes that consumers are often not aware of deceived marketing techniques. Furthermore, future research should further explore what cues consumers rely on, how to enhance their knowledge and how to foster better informed consumption patterns.

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In the last decades, individuals have become more aware of their eating habits, the food that they consume and the consequences of supermarket purchases (Cornish et al., 2016; Yamoah eh al., 2014). They are aware of their own health, but also of the environment and animal welfare (Petrescu et al., 2020). As this awareness is growing, the marketing industry makes use of this and tries to adhere to the standards that the consumer is setting (Borkfelt et al., 2015). However, marketing techniques can be used in a way that is misleading, which causes consumers to believe a product might adhere to their standards, when it does not (Bjørkdahl & Lykke, 2021; Spaniol et al., 2024). This is called washing, where disinformation about the image of an organization regarding the responsibility they take for e.g. environmental, consumer or animal welfare is passed to the consumer (Bjørkdahl & Lykke, 2021).. Washing can have various negative consequences, where misleading consumers leads to a less informed decision. This results in a compromise in animal welfare, the environment or consumer health, as consumers do not get the quality they might expect (Zioło et al., 2024). Next to this, it creates unfair competition for organizations who do concern for these values, as well as the challenge of consumer suspicion regarding washing (Steenis et al., 2023; Zioło et al., 2024). Furthermore, it is conceivable that consumers are often not aware that washing occurs, as most people cannot accurately detect lies (Hartwig & Bond, 2011; Levine, 2014). Thus, it is important to investigate if consumers are aware they are being washed, and if so, when they do. Therefore, this research will investigate if consumers are aware of being washed by using a qualitative approach with funneled in-depth interviews.

Types of washing

There are different ways in which washing can be expressed. First, a product can be highlighted as e.g. environmentally friendly, animal friendly or healthy based on a few attributes, and not the product(range) as a whole (Eng et al., 2021). Also, there can be misinformation on packages, commercials or websites regarding the whole product or brand (Eng et al., 2021; Spaniol et al., 2024). Next to inaccurate claims, washing can also refer to communication techniques that are used to mislead consumers. This involves vague terms, misleading labels and claims without proof (Eng et al., 2021). All these ways of washing are used to deceive consumers into thinking the product adheres to their standards.

There are also different types of washing, for example greenwashing, health washing, pink washing, blue washing, social washing and welfare washing (Berliner & Prakash, 2015; Bjørkdahl & Lykke, 2021; Harvey & Strahilevitz, 2009; Heiss et al., 2021; Rizzi et al., 2020). This study will focus on green- welfare- and health washing, as the values that these focus on are emerging trends in consumer purchasing and thus highly prevalent in supermarket products (Alam et al., 2025; Bjørkdahl & Lykke, 2021; Munro et al., 2023). Greenwashing misleads consumers by giving a false impression of the environmental impact or benefits of a product (EuropeanParliament, 2024). For example, in

2021 a plant-based milk brand stated that their products reduced CO2 emissions with 73%, however not mentioning that this was only the case for one product and not the whole range of products (FoodNavigator, 2022). Also, statements such as 'climate neutral meat' are often used, where the consumer might think this type of meat is 'climate neutral', when in reality meat in itself can never be neutral (WakkerDier, 2023). Washing practices concerning animal welfare is relatively new and only few research is done. In welfare washing, advertisement about the welfare of animals is either misleading or inaccurate and organizations appear to take responsibility for animal welfare (Bjørkdahl & Lykke, 2021). Welfare washing can for example be found in slogans like 'farm-raised' or 'grass fed'. Also, imagery of happy or free animals can be used to deceive individuals into thinking animals lived a happy life (Thibault et al., 2022). The final type of washing integrated in this research is health washing. Health washing concerns the strategy of presenting unhealthy products in a misleading context of fitness, sports or other activities related to a healthy lifestyle (Heiss et al., 2021). Furthermore, consumers can be misled about the nutritional values of food. Here, communication about e.g. the ingredients can be amplified, incomplete or inaccurate (Heiss et al., 2021). An example of a product that is often health washed is cereal, with claims such as 'natural', 'with fruit' or 'no artificial flavors and colors'. These products are however often full of sugar and high in energy, and thus are not as healthy as consumers might think (Parra-Murillo et al., 2021)

Regulations

Until now, there are only few regulations that protect consumers from washing practices (Aditya, 2001). For example, recently the European Commission proposed a new directive focusing on greenwashing (EuropeanUnion, 2024). In this directive, the European Union wants to protect consumers against unfair practices of greenwashing. In order to empower consumers when making their decisions, there will be an expansion of the law regarding commercial practices, while also accounting for ethics (EuropeanUnion, 2024). Next to this, the Dutch Authority Consumer and Market prescribes a guideline for companies about sustainability claims (AutoriteitConsument&Markt, 2023). In this guideline, it is made clear that companies can only use clear, correct and relevant sustainability claims. When one does not adhere to these rules, a fine will be imposed (AutoriteitConsument&Markt, 2023). In terms of health washing, the European Commission has established regulations on nutrition and health claims to address this issue. Examples of these claims are e.g. 'high protein', 'low fat', 'reduces cholesterol' or 'increases performance' (EuropeanCommission, n.d.-a, n.d.-b). However, these rules are not always adhered to. In 2024 the Dutch Food and Consumer Product Safety Authority (NVWA) found that a lot of companies did not adhere to the rules, where they used claims 'source of protein' or 'protein rich' without compliance to the cut-off points. The NVWA gave a warning to these companies (NederlandseVoedselenWarenauthoriteit, 2024). Finally, there are no regulations that prevent welfare washing.

Thus, it is clear that there are only few regulations that try to prevent washing from happening, but these are not always adhered to. Additionally, there is still room for companies to

make claims and use advertising in such a way that consumers are being misinformed, misled or confused. This means that the responsibility is shifted onto the consumer. However, these consumers might not be able to detect washing.

Detecting deception

A way to identify if consumers are able to detect washing is by using categorization theory, which states that individuals can classify products based on mental categories such as green, nongreen or greenwashed (Ende et al., 2023; Fella & Bausa, 2024; Loken et al., 2008). During the process of categorization, consumers use available information, like prior knowledge, to make inferences which can be influenced by for example motivation, ability, and contextual factors (Loken et al., 2008). Studies by Fella and Bausa (2024) and Delmas and Burbano (2011) describe that whether or not consumers recognize washing depends on whether the greenwashed category is activated, by for example prompting them to reflect on the product's honesty. However, in general people are not good at detecting misinformation and are unlikely to activate these categories. In line with this, according to the truth-default theory, individuals have a natural tendency to believe information, unless they have a reason to suspect otherwise (Levine, 2014). They often assume honesty by default and fail to actively consider the possibility of deception. Here, people's beliefs, social influences and broader information available shape their vulnerability (Levine, 2022). Also, the study of Walther et al. (2024) shows that consumers do not prioritize the credibility of a source as one of their initial judgements. This means that they do not actively consider if information is truthful and therefore will not detect misinformation being spread, which is in line with the truth-default theory. Because individuals do not pay direct attention to the credibility, they might get deceived more easily. Furthermore, research in deception also shows that the cues that people rely on when judging lies is often misleading or misinterpreted (Hartwig & Bond, 2011). It is seen that the accuracy level of detecting deception is often only slightly better than chance level (Bond Jr & DePaulo, 2008; Hartwig & Bond, 2011).

Next to individuals lacking deception detection in general, marketing techniques are often used to deceive and mislead people (Eng et al., 2021). One of these techniques is exemplification, where a phenomenon is described using a single case as an example (Zillmann, 1999). Exemplars are statements that are vivid and emotionally arousing, as it lacks concreteness. Examples are images, a short quote or a statement regarding a part of the product (Eng et al., 2021). The use of exemplars can deceive individuals, as it influences the judgements that people make. These judgements are made fast, without much elaboration (Brosius & Peter, 2017; Eng et al., 2021). This is also called a peripheral route to information processing, in the Elaboration Likelihood Model (ELM) (Petty & Cacioppo, 1986). The ELM states that individuals process information based on attractiveness with a low degree of thought when there are peripheral cues, such as the exemplars. In contrast, when individuals base their judgements on facts and strong arguments, they use central processing, whereby they elaborate more. This type of processing is almost never used when individuals are getting washed, as they are misled by vivid statements and short content (Petty & Cacioppo, 1986).

Next to the type of processing that individuals use to judge the veracity of a product or statement, the amount of cognitive load also has an effect. As exemplars are mostly short and vivid, the cognitive load to process the information is low (Krämer & Peter, 2020). This leads them to process this information quickly, without much elaboration needed (Krämer & Peter, 2020; Petty & Cacioppo, 1986). Also, consumers are often confronted with a choice overload. According to the study of Buratto and Lotti (2023), choice overload can decrease judgment of the sustainability of a product. Here, the wide variety of choices makes judgement formation extremely hard. Also, the study of Walther et al. (2024) that analysed how consumers judge the veracity of product reviews, state that consumers may prioritize relevance over veracity when they make a judgement about a product. This refers back to the amount of cognitive load a decision-making process takes. Consumers might not judge a product by its veracity to reduce load, and thus persuasive effects can increase. In conclusion, companies use techniques to enhance quick and unthoughtful processing to deceive individuals into thinking a product is honest. Therefore, cues to detect washing might not always be correct.

Several studies investigated if consumers could detect greenwashing. The experimental study of Fella and Bausa (2024) shows that the ability of consumers to identify greenwashing is largely dependent on what consumers pay attention to during the product evaluation. The participants in this study did not recognize the greenwashed products during their product evaluation, as their purchase intentions of honest green- and greenwashed products were equal. Also, explicitly focusing the attention of participants to a products' greenness did not help to detect greenwashing. However, when asking for perceived greenwashing, the participants did identify these products (Fella & Bausa, 2024). The study of Ende et al. (2023) also shows a low ability of detecting greenwashing practices, which is also in line with lie detection research (Hartwig & Bond, 2011). However, they also found that when products showed features that resembled a stereotypical green- status (e.g. color or price), their accuracy of detecting greenwashing increased. The study of Steenis et al. (2023) shows that when brands exaggerate their sustainability claims, there is a risk of lowering consumer trust and positive effects of the sustainable efforts of the brand. This was also found in the study of Akturan (2018), which shows that when the discrepancy between the actual performance and the statements being made become bigger, perceived deception will be higher and thus lowers their attitude towards the product and purchasing intentions (Akturan, 2018). In conclusion, research that is done in the area of greenwashing still shows mixed results. Several studies show that consumers lack knowledge of washing, which indicates that consumers do not know the cues that deceive them (Eng et al., 2021; Naderer & Opree, 2021). Furthermore, even when consumers know these cues, it is still not clear if knowledge about these cues can help consumers to detect greenwashing (Fella & Bausa, 2024).

When focusing on health washing, there are studies that examine whether individuals look at health cues, however they do not focus on the deceptive part of these cues (Applegate et al., 2025; Van Loo et al., 2021). When focusing on welfare washing, there are studies that look at purchase intentions of products that advertise animal welfare, however these also do not focus on whether and

how consumers judge the veracity of these products (Bech-Larsen et al., 2024; Toyota & Tan, 2024) So, according to our knowledge there is no research regarding the ability of detecting health- and welfare washing. Thus, further research is needed in this area.

To conclude, existing research shows mixed results regarding consumers' ability to detect washing practices, and it remains unclear whether they focus on the right cues to recognize deception. While categorization theory implies that consumers use available information to classify products in terms of being deceptive or not, studies indicate that they often misinterpret or overlook deceptive signals. Marketing techniques such as exemplification and cognitive overload further hinder accurate judgment. It is important for consumers to identify washing practices, as they think they are buying products that adhere to their standards when they do not. Therefore, this study will examine the first step into the realm of this research, namely whether consumers are aware they are being washed and if so, when they do. This provides a unique contribution as it captures the moment that consumers' spontaneously mention the possibility of being washed. The focus will be on advertising on physical supermarket products. Through this research, the following research question will be answered: "To what extent are consumers aware that they are being green-, welfare- or health washed?"

Methods

Design

A qualitative study using semi-structured in-depth interviews was used to explore consumer awareness in green-, welfare- and health washing. A qualitative approach was used as it allows for insight in the view of consumers themselves and it allows for a rich understanding into their behavior (Busetto et al., 2020). A positive advice from the Humanities and Social Sciences Ethical committee was received (application nr. 250615)

Participants

This research was carried out by conducting interviews with twenty participants (female n = 13, male n= 7), where all age groups from twenty to seventy years and older were represented. Demographics and characteristics of the participants can be found in Table 1. Recruitment of these participants was done using convenience sampling, as this is most efficient regarding sparse time (Rahi, 2018). This entails that the researchers' network was utilized, comprising a diverse group of individuals. Hereby, a heterogenous sample could be achieved which can represent the general consumer (Robinson, 2014; Shaheen et al., 2019; Walther et al., 2024). An inclusion criterion for participating was that the participants needed to be a consumer of supermarket products, which entails that they have purchased items from the supermarket in the last month (Posavac et al., 2012; Walther et al., 2024). Also, participants needed to be above eighteen years old. As the goal was to get a sample that represents a general consumer, participants were included regardless of their values regarding the environment, animal welfare and health. Data saturation was observed at fifteen participants, while data was collected till twenty participants to ensure diversity and consistency. To encourage participation, two twenty-five-euro grocery gift cards were awarded via a random draw.

Table 1

Demographics and Characteristics of Participants (n = 20)

Characteristic	N (%)
Gender	
Male	7 (35)
Female	13 (65)
Age	
20-30	9 (45)
30-40	4 (20)
40-50	2 (10)
50-60	1 (5)
60-70	3 (15)
70+	1 (5)
Education level	
MBO	8 (40)
HBO	4 (20)
University	8 (40)
Household composition	
Living alone	3 (15)
Living with parents	3 (15)
Living with partner	9 (45)
Living with roommates	2(10)
Living with family with children below twelve years old	1 (5)
Living with family with children above twelve years old	2 (10)
Diet	_ (-*)
Omnivore	12 (60)
Vegetarian	2 (10)
Vegan	$\frac{1}{1}(5)$
Allergy	2(10)
Pescatarian	1 (5)
No fish	1 (5)
No raw animal products	1 (5)
Weekly grocery budget	1 (5)
25-50 euro	2 (10)
50-75 euro	2(10) 2(10)
75-100 euro	9 (45)
125-150 euro	2 (10)
150-175 euro	4 (20)
175-200 euro	1 (5)
Visit supermarket	1 (5)
Once a week	5 (25)
Twice a week	2 (10)
Three times a week	
Four times a week	7 (35) 5 (25)
	5 (25)
Every day	1 (5)
How visit supermarket	7 (25)
Physical alone	7 (35)
Physical with someone	3 (15)
Physical alone or with someone	8 (40)
Online Time ment daing magning	2 (10)
Time spent doing groceries	2(15)
5-10 minutes	3 (15)
10-20 minutes	9 (45)
20-30 minutes	3 (15)
30 minutes – 1 hour	5 (25)

Materials and procedure

This study used a short two-part questionnaire, with the first part conducted prior to and the second part following a funneled semi-structured in-depth interview. The aim of the questionnaire was to get insight into the level of diversity in the sample and the aim of the interview was to identify to what degree consumers are aware of being influenced by green-, welfare- and/or health washing. *First part of questionnaire*

The first part of the questionnaire aimed to get insight into the demographics and shopping behavior of the participants. The questionnaire was completed in Qualtrics prior to the interview. The questionnaire began with an explanation of the goal of the study, which was to investigate grocery shopping behavior and reasons behind purchasing certain products. It was not disclosed that the interview aimed to identify whether participants are potentially aware that they are being washed, as revealing this would have affected their responses and compromised the validity of the results. After explaining the aim, an informed consent form was shown to the participant. All participants gave consent. Then the first part of the questionnaire started, with asking for age and gender. The following questions were multiple choice questions in which participants could indicate the category they belong to for each item. These questions involved their living situation, educational level, grocery budget, grocery shopping habits and their diet. The questions regarding their grocery shopping habits concern how often they visit the supermarket, whether this is online or in a physical store, with whom they go and how much time they generally spend in the supermarket. When these questions were filled in, the interview of approximately 45 minutes started.

Interview

The interview was divided into five phases, each representing a phase in which participants may become aware of being influenced by washing practices. The goal of this funneling technique was to gain insight into which phase the participant is in when they might spontaneously mention the possibility that they were being washed. The phases go from general to more specific. The following phases were used: (1) general shopping experience, (2) choosing a product, (3) influence of packaging, (4) purchasing decisions and deceit and (5) explaining washing.

In the first phase of the interview participants were asked to describe a general shopping experience in the supermarket. The participants needed to be as specific as possible, whereby they were free to interpret the question on their own. Based on their answers, follow up questions were asked to get insight into their routines.

In the second phase of the interview participants were asked how they choose a specific product. This was done for three products: one potentially subject to greenwashing, one potentially subject to welfare washing and one potentially subject to health washing. This was done to be able to make the differentiation between the three types of washing when interpreting the data. For each of the three categories, five possible product examples were prepared. For greenwashed products, (1) soap, (2) laundry detergent, (3) bottles of water and (4) salmon were used (Fella & Bausa, 2024; Proi

et al., 2023; Setiawan & Yosephani, 2022). For welfare washed products, (1) eggs, (2) meat, (3) cheese, (4) milk and (5) butter were used (Thibault et al., 2022). Finally, for health washed products, (1) cereals and muesli, (2) candy, (3) snack bars and (4) crackers or toast were used (EuropeanCommission, n.d.-b; Parra-Murillo et al., 2021). Participants were first presented with the first product in the category. When participants indicated that they did not buy this product, the second product option in this category was introduced, continuing until a suitable product was found. This process was repeated for all three categories, where the sequence of asking about green- welfare and health washed products was alternated between participants. The questions in this phase focused on how the process of choosing a specific product out of all the possible options that are presented in the supermarket. Example questions were: *"What goes through your mind at that moment when making a choice?"* or when participants indicate they always buy the same product: *"What makes you choose this product every time?"*. There were various options for follow up questions to get more into detail about their choices. The questions for all three categories were the same. The goal of these questions was to find out what participants look at when choosing a product and why.

In the third phase of the interview participants were asked what grabs their attention when focusing on the products of the previous phase. Questions focused on what influence their attention point has on their decision-making process. Furthermore, the influence of visual appeal of the product was discussed. The interview scheme included example questions for follow up questions, for example: "*What role does product packaging play for you?*". Again, all questions were repeated for the three products discussed in the previous phase. The goal of these questions was to gain insight into what participants attention point was when looking at the product packaging and what influence this had on their decision making.

In the fourth phase of the interview participants were asked whether they get influenced by product packaging when buying a product. Here, participants could refer to any product they think of and were not restricted to the three products discussed in phase two and three. Follow up questions were more specific regarding deceit, whereby participants were asked if they ever experienced the feeling that the product packaging raised suspicion. The goal of these questions was to get the participants' attention towards the possibility that they are being misled when choosing products in the supermarket, without directly confronting them with the term washing. Hereby, their own interpretation and thought process was still considered, while guiding them more than in the previous phases.

In the fifth and final phase of the interview an explanation of the three types of washing was given to the participants. They were asked whether they know these concepts, if they think they have bought washed products, if they can give an example and how they (when applicable) determine the veracity of a product. The goal of these questions was to gather information on what participants share when they get information on the subject.

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In any of the stages, participants could indicate that certain cues may be misleading and therefore the exact moment a participant mentions the possibility that they are being either green-, welfare- or health washed could be extracted. The interview scheme can be found in appendix A. After answering all the questions, the interview was completed and recording stopped. *Second part of questionnaire*

After the interview, the participants could open Qualtrics again and fill out the second part of the questionnaire. This took about five minutes to complete. First, the questionnaire consisted of three questions regarding how much they value the environment, animal welfare and their own health. Then, three validated questionnaires regarding these three values were presented. The first four questions of the environmental PVQ (E-PVG) were used to measure environmental value, the attitude towards animal treatment scale was used to measure the animal welfare value and the health value scale was used measure the health value (Bouman et al., 2018; Lau et al., 1986; Stel & Unterweger, 2025; van der Werff et al., 2013). After filling in these questions, the participants could submit their responses. The process of their participation in this study was now finished. The whole questionnaire can be found in appendix B.

Data analysis

To analyze the data obtained by the interviews, ATLAS.ti (version 25.0.0) was used to code the transcripts from the interviews and structure them. Analysis started with transcribing all interviews in word and exporting it into ATLAS.ti. All transcripts were read freely, to get a general impression of the data and initial codes were created. The codes were structured through the five phases of the interview. In every phase, two types of participants were analyzed: participants who do spontaneously mention the possibility that they are being washed and participants who do not mention the possibility of being washed. Participants were appointed to the first category when they mentioned they do see the possibility that they are being misled by the packaging in the supermarket, regarding either welfare-, health- or greenwashing. Participants were appointed to the second category when they did not mention that they are potentially being misled. These participants can be divided into participants who did mention their environmental-, animal welfare- or health values and participants who did not mention these values. This categorization of participants was used for every type of washing in every phase, thus there are nine categories of participants per phase. Additionally, all the other factors that all participants mentioned in the interviews were coded. These codes were created based on the answers of the participants, which entails that there was a high number of codes as participants mention a wide range of factors that they base their purchasing behavior on.

When determining which code to apply, there were few things considered. First, the depth of questions and answers determine to which phase a code is assigned to. For example, when a participant answered a question in phase 2 with a level of depth that aligned more closely to phase 3, the code was still placed under phase 2. This was done as the participant felt the need to express their concern in this phase without the redirection of the next phase. Second, when participants mentioned a

value that differed from the intended value associated with that product, the response was still coded under the value of that product, but the alternative value was noted. For example: if a participant referred to the environment while talking about an animal welfare product (e.g. eggs), the code would be phase x: welfare – environment. Lastly, there is a distinction between labels and text when referring to other factors than the values. When coding 'labels', all kinds of certified labels are included. When coding 'text', all text on the packaging is included, but not the labels and ingredients list. For example, 'less sugar' or 'good for the environment' is text, while 'organic' or 'beter leven ster 3' are labels.

In order to combine the results of the interviews with the demographics and values of the participants, the Qualtrics questionnaire was analyzed in R-studio (version 2024.04.2+764 (2024.04.2+764)). The demographic data was used to compare participants and summarized by averaging the data. Furthermore, the values were analyzed by averaging the Likert scale numbers of the environmental, animal welfare and health values per participant and in total. This was done to get insight into the average score per participant and to compare participant scores.

Results

The transcripts of all interviews were coded by examining whether and when participants spontaneously mention the possibility of being washed. This was done in stage 1 to 4 of the interview. The participants who mentioned the possibility of being washed, were potentially aware that they were being misled regarding animal welfare, health or environmental impact of products in the supermarket. When participants did not mention this, attention was given to whether participants mentioned that they look at cues regarding animal welfare, health and environmental impact or not. The summary of these results can be found in Table 2. Furthermore, all remaining factors that all participants look at in the supermarket were explored. Also, in the last phase of the interview it was examined whether the participants know of the concept after explaining the three types of washing. Lastly, a link was made between participants' point of attention and their demographics, shopping behaviour and values. The results will be structured based on the level of specificity used in questions in the interview, through the five phases. The Dutch translations of the quotes can be found in appendix C.

Table 2

Frequencies of Mentioning Green-, Welfa	<i>re-, and Health Washing in Phase 1 to 4 (n = 20)</i>
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Dhaga	Condition	Casenwashing (a)	Walfara washing (n)	Haalth weaking (n)
Phase		Greenwashing (n)	Welfare washing (n)	Health washing (n)
1	Mention washing	0	0	0
	Do not mention washing	20	20	20
	Mention value	1	1	1
	Do not mention value	19	19	19
2	Mention washing	0	1	0
	Do not mention washing	20	19	20
	Mention value	7	16	10
	Do not mention value	13	3	10
3	Mention washing	0	2	0
	Do not mention washing	20	18	20
	Mention value	10	13	8
	Do not mention value	10	5	12
4	Mention washing	0	1	3
	Do not mention washing	20	19	17
	Mention value	4	5	7
	Do not mention value	16	14	10

Note. Each phase contains two conditions: "mention washing" and "do not mention washing". The latter is subdivided into "mention value" and "do not mention value". Frequencies reflect the number of participants assigned to the condition.

Phase 1: general shopping experience

In the first phase of the interview, where participants were asked to describe a general shopping experience, none of the participants mentioned a possibility of being washed. Of the twenty participants who did not mention this, one participant mentioned that she valued her health, animal welfare and the environment, while the other nineteen participants did not mention these values. Overall, the remainder factors that most participants cared for were efficiency and price.

When being asked about a general shopping experience, none of the participants mentioned any signs of being misled and thus did not indicate they are aware that they might be washed.

One participant mentioned that she valued the environment, animal welfare and her own health. However, when stating this, she did not consider the possibility that the cues that she relied on may be misleading. For example, she states: "I want to eat more vegetarian, but that does not work out yet. And well, my grandfather often joins us for dinner. Try getting him to eat a beetroot burger or something, that is just not going to happen. And then, when I am at the supermarket I want to buy cheese, I think to myself: I don't need cheese. Cheese is bad for the environment". This implies a concern for the environment which can also be seen in her environmental value score, which is a 5.5 on a 7-point Likert scale.

The other nineteen participants mentioned other factors they consider than the environment, animal welfare or their health while describing their general shopping experience. Most participants mentioned that they think about the efficiency (n = 14) and price (n = 13) while doing their groceries. They focus on going through the supermarket as fast as they can, by preparing a shopping list or taking the same routes when shopping. Furthermore, they check beforehand what the discounts are and try to choose the cheaper brands or private label brands from the supermarket they go to. They tailor their groceries based on these factors. Also, participants based their general shopping on time (n = 2), health (n = 1), allergies (n = 1) and habits (n = 2). Six participants go unprepared to the supermarket. Their reasoning variates between feeling like it takes less time, saves money or being spontaneous and buying what they fancy at the moment.

Phase 2: choosing a product

In the second phase of the interview, where participants were asked about how they choose a product, one participant spontaneously mentioned the possibility of being welfare washed, while none of the participants mentioned a possibility that they could be health- or greenwashed. Of the participants who did not mention they could be washed, seven participants looked at cues that consider the environment, sixteen participants looked at anticipated animal welfare and ten participants looked at cues that imply health. Overall, the remainder factors that participants cared for were price, color on the packaging and their habits.

One participant mentioned that she was aware of the possibility of being welfare washed: "*I* think they can cover it up easily, they can say that the cows are happily grazing outdoors, while they are only there for 40 days a year. Or, yeah, they claim the calf stayed with its mother, and that actually doesn't mean anything at all". However, none of the participants were aware of health washing and greenwashing.

As mentioned, of the nineteen participants who did not spontaneously mention a possibility that they could be washed, seven participants mentioned they look for environmentally friendly products, while thirteen do not, sixteen participants mentioned they look for products that concern for animal welfare, while three do not, and ten participants mentioned they look for products that are good for their health, while ten do not. Most participants (n = 6) search for words as 'natural', 'no additives', 'organic' or 'ecological' when determining the environmental impact of a product. Moreover, they think a product is more natural according to the dull packaging or their own interpretation. The other thirteen participants (n = 16) choose either free range, organic eggs or eggs with a 'beter leven keurmerk' when looking for a product that they think considers animal welfare. They imply that the animals had a better life, that they live in better circumstances or get fed better food. Four participants mention that they think a higher price means that the animals have a better life. Finally, participants who searched for products that are healthy mostly look for the number of calories, fat, sugar or protein of a product (n = 7). They determine this by looking at the text or labels on the packaging. One participant mentioned that they like it when there is a lot of text: "If something is labeled in a way that explains how it's made, or things like that, then I do feel like at least they are not trying to hide anything. Of course, I always feel like they will still be hiding something, but at least less than the ones who do not say anything at all". Three participants felt lost when searching for healthy products, e.g.: "So many options. It's honestly insane. They've really gone overboard with *it, in every variation. And well, you can try to pay attention to how much sugar is in there, or what the healthiest option is? But yeah, I am not someone who always directly looks at the ingredients in the supermarket, so yeah, looking at the packaging, what is on there and based on that choose something what feels right".*

Focusing on all participants, when being asked about how they choose a product that might contain greenwashing, all participants stated one or more factors other than the environmental value that they consider when choosing a product. They were free to name more than one factor that they look at. Most participants looked at the price (n = 14), text (n = 10), quality (n = 8), and scent (n = 7) when choosing a product. Slogans such as 'soft for hands', 'extra hygienic', "0% soap', 'extra shine', 'organic' or 'natural additives' were seen as attractive. Also, texts that imply what kind of scent the product will have, were cues to either buy a product or not. Next to these factors, for more than half of the participants, their initial thought process was based on their habits (n = 11). This group buys the product repeatedly because it is cheap or because they are so used to their own brand that they do not consider buying anything else. Furthermore, participants looked at the product itself (n = 4), the brand (n = 3), color (n = 4), ease of use (n = 2), labels (n = 3), social media (n = 3), ingredients (n = 1), size (n = 1), marketing (n = 1), pictures (n = 1), plastic (n = 1), quality of packaging (n = 1), size (n = 1), and trust (n = 1).

Focusing on all participants, when being asked about how they choose a product that might contain welfare washing, all participants stated one or more factors other than the animal welfare value that they consider when choosing a product. Most frequently mentioned are price (n = 14), habit (n = 13) and labels (n = 8). From these factors, habits were the first consideration participants make. They always buy the same product repeatedly and are used to the packaging, the product and the taste. Therefore, often these participants do not think about picking another option: *"I usually just grab the pack of 12 free-range eggs without looking into other options"*. Out of these thirteen participants, seven participants have this habit because of price considerations (n = 7). Next to these frequently mentioned factors, participants looked at the size (n= 8), taste (n = 5), the product itself (n = 4), health (n = 4), packaging itself (n = 2), assumptions (n = 1), availability (n = 1), brand (n = 1), color (n = 1), empty shelf (n = 1), environment (n = 1), fresh product (n = 1), local product (n = 1), and text (n = 1).

Focusing on all participants, when being asked about how they choose a product that might contain health washing, all participants stated one or more factors other than the health value that they consider when choosing a product. More than half of the participants look at the color of the packaging when choosing this type of product (n = 11). The reasoning for this approach differs: one participant liked dull or non-striking colors as they associated this with expensive products while another two associated this with the product containing natural additives, three participants liked bright colors as it implies that there is real fruit used in the product, whereas one participant liked green colors as it implies that it is good for the environment. Furthermore, almost half of the participants looked at the amount of fat, calories or sugar of the products (n = 8). Six participants looked at the front of the packaging to check this, while two participants looked at the back of the packaging. Additionally, eight participants mentioned that they look at the text on the packaging (n = 8). This can be for aesthetic reasons, for example: "Crackers, you know, with all those seeds and with a nice little story around it and it looks really aesthetic, you know", but it can also be to gain information on what the product will entail, or how 'natural' it is. Furthermore, participants tried to look for this information while choosing a product: ingredients (n = 4), brand (n = 3), labels (n = 3), pictures (n = 3), quality of packaging (n = 2), allergy (n = 2), ease (n = 2), social media (n = 2), environment (n = 1), product itself (n = 1), product seems expensive (n = 1), shape (n = 1) and vegan (n = 1).

Phase 3: influence of packaging

In the third phase of the interview, where participants were asked to explain in more detail what grabs their attention when looking at the packaging and whether they have bought products based on packaging, two participants mentioned the possibility that they could be welfare washed, while none of the participants mentioned that they could be health- or greenwashed. Of the participants who did not mention that they could be washed, ten participants looked at cues that consider the environment, thirteen participants looked at anticipated animal welfare and eight participants looked at cues that imply health. Overall, the remainder factors that participants cared for were text, color, pictures and the product itself.

Two participants mentioned the possibility of being welfare washed (n = 2). One participant mentioned that she thinks marketing plays a big role: "I think about the marketing, about what the packaging looks like. What they put on there and what not. Yeah, you also have those cows, like 'pasture-raised' or something, and then I am like: sure, nice that you put that on the label, but to what extent is that cow truly pasture-raised? And then there is other marketing too, where you see TV commercials for certain products, like cheese, and there is a female farmer happily skipping through a meadow with a cow, and they are all roaming freely. Then I think, yeah, I don't think something's right there". The other participant mentioned that she was educated on the subject of washing in her studies, and there fore she recognizes this in the supermarket. Again, in this phase none of the participants mentioned that they are potentially being green- or health washed.

As mentioned, of the participants who did not mention that washing occurs, ten participants mentioned they look for environmentally friendly products (n = 10), while ten participants did not,

thirteen participants mentioned they look for products that concern for animal welfare (n = 13), while five did not, and eight participants mentioned they look for products that are good for their health (n =8), while twelve did not. In this phase of the interview, participants were more guided to consider the packaging, as opposed to considering the product in a broader sense. When considering environmental impact, most participants look for a green or 'natural' color scheme, no plastic packaging and words such as 'environmentally friendly'. For example: "It's a cardboard box, so it might look more sustainable or like a more natural kind of packaging for eggs. Eggs are a natural product after all, and if they come in plastic packaging, it just feels unnatural". When considering their own health, most participants (n = 8) search for key words, such as 0% sugar, low fat, high fiber, e.g.: "I think that if I would buy a different one, I would look at the text on the packaging. Like whether it says something about fiber, or that it has certain percentage less sugar, or whatever it says on there". When considering animal welfare, nine participants mentioned that they choose products with labels such as 'free range' or 'organic' or 'beter leven' (n = 9), of which five mentioned that they felt better after choosing this (n = 5). Furthermore, three participants mention that the packaging encourages them to buy, according to their perception, a more animal friendly product because it looks more luxurious due to a 'fun' packaging (n = 3).

Focusing on all participants, when being asked about how they choose a product that might contain greenwashing, all participants stated one or more factors other than the environmental value that they consider when choosing a product. The text (n = 12), color (n = 8) and pictures (n = 5) were factors that were considered most. The importance of text corresponds with the results from answers given in the previous phase, where text was appointed ten times, as well as color which was appointed four times. During this stage, participants found it important to look at the appearance of the product as a whole: again, five participants found it important that this is neutral and fresh (n = 5). Furthermore, the pictures imply the scent of the product, which was also seen as important in the previous stage. Finally, the participants mentioned they choose a product based on price (n = 4), habit (n = 3), size (n = 3), brand (n = 2), ease of use (n = 2), labels (n = 2), product itself (n = 2), quality (n = 2), scent (n = 2), plastic (n = 1) and trust (n = 1).

Focusing on all participants, when being asked about how they choose a product that might contain welfare washing, all participants stated one or more factors other than the animal welfare value that they consider when choosing a product. The price (n = 5) and product itself (n = 4) were the most frequently appointed, where four participants search for a lower price and two participants search for brown eggs instead of white. This is again in line with the reasoning of the previous stage. Furthermore, labels (n = 3), quality of packaging (n = 3), plastic (n - 3), expiration date (n = 3), habit (n = 2), local products (n = 2), size (n = 2), text (n = 2), the environment (n = 1) and consistency (n = 1) were mentioned as factors to consider.

Focusing on all participants, when being asked about how they choose a product that might contain health washing, all participants stated one or more factors other than the health value that they consider when choosing a product. Mostly mentioned were the color (n = 10) product itself (n = 8)and pictures (n = 8). Again, the interpretation of colors on the packaging differed: seven participants liked bright colors while three participants liked basic colors as it represents natural products. Furthermore, the product itself was seen as important, as the participants liked to see the product itself when deciding to buy it: *"That you can see from the outside what the inside of the packaging contains. I mean, I want to the entire product"*. This is in line with participants paying attention to the pictures on the packaging, as they ought to represent the content of the product. Lastly, ingredients (n = 7), text (n = 5), taste (n = 4), quality of packaging (n = 3), habit (n = 3), plastic (n = 2), labels (n = 2), price (n = 2), brand (n = 1), environment (n = 1), packaging itself (n = 1), quality (n = 1), signs of distrust (n = 1), and size (n = 1) were mentioned as factors to consider.

Phase 4: purchasing decisions and deceit

In the fourth phase of the interview, where participants were asked to reflect more specifically on how packaging influences their purchasing decisions and whether packaging can be misleading, three participants spontaneously mentioned a possibility of being health washed, one participant mentioned they could be welfare washed and zero participants mentioned they could be greenwashed. Of the participants who did not spontaneously mention the possibility of being washed, four participants looked at cues that consider the environment, five participants looked at anticipated animal welfare and eight participants looked at cues that imply health. Overall, the remainder factors that participants cared for were price, pictures and labels.

Four participants mentioned a possibility of a form of washing. Three participants expressed doubts whether information regarding health is indeed accurate, for example: "*I have to be honest, I don't really believe a lot of things, not all the time. I think that it is just a nice sales pitch? So I think I don't really let the texts on products influence me that much. Especially with protein things nowadays. It's kind of like, yeah, it sounds good, but is it really true that there is that much more protein in a product? And what kind of other rubbish do they put in there? Because it makes it look really healthy, but I do not think it is". The participants who mentioned health washing might occur, said that they see claims such as 'high protein' or labels such as 'nutriscore' and then wonder if these are true and what they actually mean. One participant mentioned that she always looks at the back of the packaging to check whether the product is as healthy as it seems when looking at the front. Furthermore, one participant mentioned a possibility that she was being welfare washed.*

As mentioned, of the participants who did not mention a possibility of being washed, four participants mentioned they look for environmentally friendly products (n = 4), while sixteen participants did not, five participants mentioned they look for products that concern animal welfare (n = 5), while fourteen did not, and seven participants mentioned they look for products that are good for their health (n = 7), while ten did not. In this phase of the interview, participants could mention any product they had in mind, whereas in the previous stages they focused on a specific product. Four participants mentioned that they notice whether a product is environmentally friendly (n = 4).

Specifically, three participants mention that they do not let this determine their purchasing behavior (n = 3): "You sometimes see it there, then you look at it and then I don't do anything with it. No". Five participants noticed that the packaging could include animal welfare statements (n = 5), of which three participants mentioned not to do anything with this information (n = 3). However, the other two mentioned that this does influence them (n = 2): "I often do check if it actually says something like, well, milk from a cow that has been grazing out in an open grass field, so to speak" Lastly, seven participants noticed health statements on the packaging (n = 7). Two participants mentioned that they do not do anything with this information (n = 2). The other participants looked at the amount of salt or protein, expected quality and whether it looks 'chemical'. Two participants mentioned that they let the statement 'high in protein' influence their choice (n = 2): "Lately, I've been paying a lot of attention to proteins. So now I would never buy a regular breaker anymore, but only the ones with extra protein. Good for my workouts. I buy a lot of products that have extra proteins in them... It says 'high in protein' on the packaging and then I think: yeah, great, I'll choose that one".

When looking at the remainder factors that participants mention when describing their purchasing decisions of all types of products in the supermarket, they mostly considered the labels (n = 6), price (n = 6), pictures (n = 6), ingredients (n = 5) and color (n = 4). This is in line with the answers of the previous stages. Notably, there was confusion about the labels for three participants (n = 3). They all mentioned that they do not know what the labels meant and what they should do with them: "Yeah, there is a lot of nonsense on there that isn't true, so yeah I don't really know" and "There is also a whole mess of different types and varieties. That's obviously really unfair. It should be more uniform, those labels, I think that could be improved". There were a few participants who gave insights into other factors that influence them, where one participant mentioned he likes local products, but not because of environmental reasons: "I find it a bit pointless that it has to come from Afrika or South America just so I can eat a mango here. And that has to do with the fact that most fruits mostly consist of water anyway. So you are basically just moving a large amount of mostly water all around the world, and then I think, I might as well just eat an apple". Furthermore, one participant mentioned that she liked to see the product itself: "I feel the same about deli meats. I don't eat them myself, but when I look at them, I think the more expensive packaging looks more appealing. I think that's because of how it's presented in the packaging or how it's sliced. For example, in the cheaper version the sliced meat looks perfectly round and uniform. The more expensive version might not look quite as perfect, but it's in nicer packaging and also maybe has less weight. So, you'd assume the quality is better, but really, it's just the way it's sliced". Lastly, allergy (n = 2), habit (n = 3), health (fat, calories, sugar) (n = 1), new products (n = 1), quality of packaging (n = 1), strategy (n = 1), taste (n = 1) and text (n = 1) were factors that the participants considered.

When participants were asked if they ever doubted the veracity of products, half of the participants sometimes doubted the message a product sends while the other half did not feel this doubt. In the previous stages most participants did not mention that they know they can get deceived.

Examples of participants explaining what they doubted are: "And it's the same with those protein things nowadays. It's kind of like, yeah I think it's good but is there really that much more protein in it than they claim?" and "Yeah, I did have the experience that I bought something that was more expensive, because it looked nice, but I did not find it more tasty than the cheaper one. And if I buy something that is more expensive, it is mostly because the packaging look better. I think it tastes better because it looks tastier, because cheap brands are not packaged that nicely". The ten participants who mention they do not doubt the veracity of products, generally do not think about the possibility that they could be deceived: "I'm not really the kind of person who would notice that kind of thing or actually remember what it says on there" and "Oh no, not that I know of".

Phase 5: explaining washing

In phase 5, where an explanation about the three types of washing was given to the participants, eighteen participants indicated that they have heard of the concept before (n =18). Of these participants, fourteen participants could give an example of products that contain washing (n = 14). Furthermore, seven participants think they can detect signals of washing (n = 7), while the other thirteen did not verify the veracity of products that they buy (n = 13). All participants mentioned that they think they have bought a product that contains washing before (n = 20), of which ten participants mention that they do not care that they were potentially being washed (n =10).

When an explanation about all types of washing was given to the participants, 90% indicated that they have heard of the concept before (n = 18). The other 10% did not know about washing (n = 18). 2). However, when the participants who heard of the concept before were asked if they have an example of washing, there were four participants who were not able to provide an example (n = 4). The examples that the remainder 70% gave, were mostly related to health washing and welfare washing and focus on what participants find unclear or have doubts about. Health washing examples that participants gave were the FairTrade logo (n = 1), the Nutriscore (n = 1), the amount of fiber (n = 1)2) or protein (n = 3) in products, health claims on supplements (n = 1), zero and light products (n = 1)and 'healthy' bread (n = 1). Examples regarding welfare washing are the truth about free range eggs (n = 2), pictures of cows in grass (n = 2), labels on fish (n = 1) and the 'Beter Leven' label (n = 3). Lastly, examples regarding greenwashing are doubts of supermarkets' local sourcing (n = 1), the amount of plastic in packaging (n = 2), and CO2 emissions for recipes (n = 1). It is noteworthy that the examples that all the participants gave, do not all relate to the examples that they gave on what they look at when deciding a product. When talking about health washing, there is some overlap in the category labels. However, the participants who mentioned that they were aware of health washing in these labels, did not mention that they look at this when deciding to buy a product previously in the interview. When talking about welfare washing, there is also some overlap between the examples of washing and the cues they look at when deciding to buy a product. Notably, one participant gave the example of the 'Beter leven' label that could be welfare washed, however they did also mention this as a factor they consider when buying animal-based products. So, here is a discrepancy. The other

participants did not overlap in this category. When focusing on greenwashing, there is no overlap. All participants mentioned that they think they have bought a product before that was washed (n = 20).

When the participants were asked if they think they can detect signals of washing, seven participants mentioned ways they do so (n = 7), for example in health washing: "Well, I do have that with for example the Nutriscore on the packaging. I know that this score is based on the product category it belongs to, but I don't fully understand why that score is even there. So personally, I don't really pay attention to it. I kind of consciously avoid it, actually. Instead, I just look at the back of the packaging, at the nutritional values, and compare those" and "If you buy a different kind of yoghurt or quark and it says 'extra protein', I do check to see how much protein is actually in it compared to one that doesn't have that statement on the packaging. And sometimes the difference is really small, like 1%. Then I think, yeah, it's kind of pointless to put that on the packaging like that, it's just a sales technique" and in welfare washing "And then they also talk about the number of square meters or so that a chicken has to walk around. Yes, I have some doubts about that too". The other thirteen participants did not try to verify the veracity before buying a product, and thus detect no signals of deception (n = 13). They either do not think about it, do not care, do not want to spend time on it, find it too hard or are fast to believe the packaging. For example, one participant states that she thinks manufacturers can only put claims on there when they are true: "Then you assume that the claim is true, that it contains natural fragrances, and I think, well, otherwise they wouldn't be allowed to put that on the label?", as well as another participant: "I do think to some extent that one assumes that what is on the packaging is true in the end". There is also a group six of participants who are skeptical of all the signals that the packaging on supermarkets give (n = 6). Of these six participants, there are two participants who think they detect washing, and four think they cannot detect washing. Examples of skepticism are: "Well, if something claims to promote this or that, I often think: every person is different' and "Yeah, that's also the case with those Nutriscores. Sometimes there is an A on it, even though you know it's unhealthy. So with those things, you kind of see through it". Other participants looked at the ingredients (n = 4), text (n = 1) or unprocessed foods (n = 1) to verify whether washing occurred. Furthermore, four participants think they have bought washed products as it is a habit to buy a certain product (n = 4), and eight participants think that their knowledge about certain products influenced this relation (n = 8). This means that they have a lot of knowledge, for example: "Because I'm trying to eat more vegan, I've been reading and seeing more about it. And then you think, wow, is that really how milk production or battery framing for chicken's work? It really shocked me" or do not a lot of knowledge, for example: "Let's be honest, I don't do research into this topic, so it's just an assumption that you make and then you create your own opinion. But then I'm also not that into it that I will fully do research". Finally, there were two participants who wished that there were more uniform rules regarding the washed products, as they did not know what to do with it and how to verify its veracity (n = 2).

When being asked how participants verify the veracity, half of the participants mentioned they did not care about being washed in any way (n = 10). For example: "*I go to the supermarket and rush through it. So I'm definitely not going to stop and check: is this healthy or is this good? No, I'm not doing that. My goal in the supermarket is to get through it as quickly as possible, because I just don't feel like being there*", or: "*To be honest, I don't pay attention to that. No. I know all that stuff is possible, but I've got other things on my mind, like having to meet a deadline in the evening for example. Then I think, yeah, I don't really have time to think that deeply about my block of cheese or my jar of jam. Yeah. I've got way more important thing to do. It's not really my problem*". When looking at the value scores of these ten participants, they are not equivalent to their statements, as they all score on the higher end of the value that they said they do not care about. The scores are no lower than 'neutral', which implies that there is some concern for these values. There is one exception, namely the participant who mentioned who wants to go as fast as possible, who scored 1.75 on the environmental value, 5 on the health value and 4.75 on the welfare value on a 7-point Likert scale.

Additional insight demographic variables

Lastly, an exploration of participants' points of attention and their demographics, values and shopping habits was conducted to add insight into the results. This exploration focusses on phases one to four as these are the phases in which participants were questioned about their points of attention when doing their groceries.

The participant who was mentioned that she thought of the possibility of being welfare washed in the early stages of the interview, namely phase 2, is between 20 and 30 years old, lives with her partner, is vegan and scores a high Likert scale score on all values (7.00 animal welfare, 6.75 environment, 6.75 health). She also mentioned her concerns regarding advertising and animal welfare in phase 3 and 4. Her weekly grocery budget is in the top 25% of all participants, with a budget of 150 to 175 euro per week. Furthermore, she is one of the three participants who spends the most time in the supermarket, which was thirty minutes to an hour. There was one other participant who was aware that she was welfare washed in the third phase of the interview. She valued animal welfare, with a score of 6.00 on a 7-point Likert scale. She is between 20 and 30 years old, has no diet and lives with her parents. She did not mention her concerns in any of the other phases of the interview. In later stages of the interviews, three other participants mentioned that they were aware of health washing. All three participants find their health very important (6.5, 6.5 and 6.75 on 7-point Likert scale). Two have a grocery budget of 75 to 100 euro's a week, while the other has a budget of 150 to 175 euro's a week. They all have no diets and do their groceries multiple times a week.

There is one participant who mentioned all values in all stages of the interview, except for mentioning the environment in the fourth phase. This participant is a female in the age of 60-70 years old, who lives together with her partner. She values the environmental and animal welfare, with a score of 6.75 and 7.00 on a 7-point Likert scale, which is in the top 10% and top 20% of all participants. She values her health less, with a score of 4.25. Furthermore, there are six other

participants who repeatedly mention the importance of the values across the interview phases, of which four are vegetarian or vegan and one does not eat raw animal products. On average, these six participants are particularly attuned to animal related ethical concerns, with a score of 6.42, and environmental concerns, with a score of 5.61, while there is a health score of 5.41. When comparing this group with the full sample (health M = 5.63, environment M = 5.61, welfare M = 6.81), it can be seen that they put slightly more emphasis on personal health, while those who consistently refer to the values, are more responsive to environmental and animal welfare. There is one participant who never mentioned any of the three values. This is a man between 20-30 years old, living alone, with a weekly grocery budget of 25 to 50 euros. He is the fastest participant, with an average shopping trip of 5 to 10 minutes. He has the lowest environmental value score of 1.75 on a 7-point Likert scale. The other nineteen participants at least once mentioned one of the three values in one of the four first stages of the interview. Overall, the group of participants who found it important to look at the price in the supermarket, was overrepresented. There were two participants who never mentioned to look at the price of products. These participants are also in the category of 25% highest weekly grocery budget, of which are both 150-175 euro per week. Furthermore, they are both male, with HBO education, living with their partner and older than 40.

Discussion

Awareness of health, the environment and animal welfare has increased in the past decades, influencing both consumer purchasing decisions and marketing strategies' companies use to motivate consumers to buy their products (Bjørkdahl & Lykke, 2021; Borkfelt et al., 2015; Cornish et al., 2016; Petrescu et al., 2020; Spaniol et al., 2024). However, the adaption that companies make is not always honest, which can lead to washing. As a result, consumer values can be exploited. This study explored whether consumers are aware of such marketing tactics. This was done by answering the following research question: "To what extent are consumers aware that they are being green-, welfare- or health washed?" through twenty interviews about shopping behavior in the supermarket with a diverse group of consumers.

Main findings

The results of the present study show that the vast majority of participants do not spontaneously mention that there is a possibility that they are being washed. For almost all participants, being washed is not on top of their mind. Specifically, when focusing on a general shopping experience (phase 1) none of the participants mentioned that there was a possibility that they were being washed. When focusing on the packaging of products in the supermarket (phase 2), only welfare washing was mentioned by one participant. When the specificity of questions regarding influence of packaging increased (phase 3), one additional participant spontaneously mentioned there was a possibility that they were being welfare washed. Later on in the interview, when focusing on purchasing decisions and deceit (phase 4), one participant again mentioned welfare washing and three participants mentioned there was a possibility that they were being health washed. Thus, the more participants were steered into the direction of thinking about the influence of packaging on their purchasing decisions, the more participants were potentially aware of a form of washing. However, it is still the vast majority of participants who do not mention any form of washing and thus may not be aware that they are possibly being deceived. It is notable that in the last phase of the interviews (phase 5), when an explanation was given about what washing is, most participants did know what washing entailed and mentioned they did buy products that contain washing. This can indicate that they only think about the possibility of being deceived when they are reminded of this possibility. Furthermore, the results of this research show that the majority of participants mention that they value their health, the environment and animal welfare and have the intention to buy products that align with these values. However, this overrepresented group does not realize that these values are often targeted with marketing techniques that are misleading.

First, the main findings showed that the concept of washing is not on top of mind for the majority of participants. In line with the results of this research, the study of Fella and Bausa (2024) shows that considering the possibility of being washed is not the first thing consumer think of when evaluating purchase intentions, when they are not reminded of this possibility. This study adds further insight by a phase-based approach on shopping habits rather than depending on general reflections of products. Furthermore, research shows that individuals have a tendency to believe what they see, rather than to question this, unless they have a reason to suspect otherwise (Levine, 2014; Walther et al., 2024). This may help explain why the results showed that when questions were more specific and leading, the more participants were likely to consider the veracity of the products they have bought. Here, they may have perceived a reason to be more critical. It is noteworthy that these participants who mentioned they were possibly being welfare washed highly value animal welfare and the environment. They are aware of washing as they collected information about the topic because they find it important or because they do not trust the slogans on packages, as they see it as a marketing technique. When focusing on later stages of the interviews, four participants mentioned a possibility that they were being health- or welfare washed. Three of these participants were aware of health washing, which is a noteworthy finding. A possible explanation for the few participants that noticed health washing is the trend of the consumption and marketing of protein rich products from the last years (Lee et al., 2024; NielsenIQ, 2025). Therefore, the time period in which this research was conducted should be taken into consideration when interpreting the results. Lastly, in the final phase the majority of participants mentioned they could potentially be washed once the concept was introduced. This could be explained by the Truth-Default theory which states that individuals require a reason to question the default assumption of honesty (Levine, 2014).

The majority of the participants do value the environment, animal welfare and their health, but they do not mention the possibility that they are being misled by marketing techniques. The majority thinks they buy a product that is either good for the environment, animal welfare or their health based on textual cues and labels on the packaging. For example, words like 'organic' or

'natural' help them to decide to buy a certain product. The study of Hermansen (2003) shows that the positive perception that consumers have with these labels can lead to false associations regarding animal products, especially in relation with low knowledge. Some participants in this study also indicated that they often lack sufficient knowledge about the topic or the label to make an informed judgement about the credibility of a product's claim. As a result, they tend to rely on labels or textual cues when making purchasing decisions, hoping that the products truly align with their values and expectations. However, there are some participants who do not question their knowledge as they strongly believe they are choosing a 'good' option in terms of animal welfare, the environment or their health as they believe that certified labels are credible and fulfill their criteria. The trust that these participants have algins with previous research which suggests that consumer trust plays a role in the gap between intention and behavior in sustainable purchasing (Nuttavuthisit & Thøgersen, 2017). They note that trust facilitates more favorable expectations and outcomes, whereby consumers think they choose 'green' products (Nuttavuthisit & Thøgersen, 2017). Their trust thus results in purchasing a perceived green product. Furthermore, the study of Kühl et al. (2023) notes that when consumers highly value these labels, even the knowledge that they might be deceived does not automatically lower their intention to buy these products, as their trust in the label is high.

Additionally, the results showed that participants often look at the color of the packaging to decide if they should buy the product. The study of Hartwig and Bond (2011) found that when products showed features that resembled a stereotypical green- status (e.g. color or price), the accuracy of consumers' detecting greenwashing increased. However, these results are not in line with this study. Here, the color is often the reason why people buy products as they think it does resemble their values. Often participants look at the colors of the packaging to see whether the product is 'green' or 'natural' as they think they would then make a better choice.

Furthermore, the results of this study showed that participants consider a wide variety of factors other than the environment, animal welfare and their health. Their shopping habits and the price of products shaped their shopping behavior the most. The majority of the participants buy products that they always buy, as they perceive them to be suitable to their lifestyle. Some participants have bought these products for years and do not look for other options. Research into consumer behavior also shows that decisions in the supermarket are often guided by habits (Gardner et al., 2011; Wood & Neal, 2009). Also, the study of Machín et al. (2020) shows that individuals go straight for their usual product without much deliberation. Furthermore, the majority found price important in all of the stages of the interview, mostly in stage two where they were asked how they choose a product. There were only two participants who did not mention that they look at the price of products. Based on these findings, it appears demographics, shopping habits, budget and values do not influence whether participants pay attention to product price. Additionally, it is noteworthy that the majority of participants only based their decision to buy a product on the information on the front of the packaging. As mentioned, they look for words, colors or labels and mostly do not check for more

information than that. The study of Machín et al. (2020) is in line with this result, as they state that consumers conduct limited information search before they choose a product. However, there are some participants who did look at the ingredients list to check whether their impression of the product was correct, nevertheless this was mostly in later stages of the interviews.

Limitations

There are several limitations concerning the methods and results of this study. The first limitation concerns the structure of the interviews. Although the interview scheme was carefully developed, the structure could still have had an impact on the answers that participants gave. The interview scheme was designed to be thorough, ensuring that the data collected would be as complete as possible. The questions were all open ended and the goal was to let the participant speak, leading to a conversation steered by the participant. Nevertheless, the five stages of the interview could have led to participants not mentioning all their thought processes during every stage, as doing so would lead to repetition. For example, it might look like participants are less concerned for animal welfare in the fourth phase than the previous stages, but this might be because they did not repeat themselves when an alternative question was proposed in the next phase. This was taken into account when interpreting the results.

A second limitation concerns social desirability bias. As participants in this research were all recruited via the researchers' social circle, they had some (distant) connection to all participants. This could have led them to wanting to give socially desirable answers regarding their general shopping behavior. Nevertheless, this unlikely shaped their reflections regarding deception, as participants cannot frame themselves favorably around a concept that they have not considered. Furthermore, the participants may have been influenced by demand characteristics, adjusting their responses to align with what they perceived to be 'good'. However, there were measures taken regarding anonymity and confidentiality to minimize this.

The last limitation concerns the focus of the study, as this regards the extent to which consumers are aware that washing occurs. However, it remains unclear what exactly participants identified as misleading. While some participants were aware of signs of potential washing, the specific cues or reasoning behind their recognition of deceit were not explored in depth. Thus, this study offers insight into when consumers spontaneously mention that washing might occur, but not why or how this happens. Furthermore, the focus of this study was on Dutch consumers, thus the findings may not be generalizable to other contexts or cultures.

Implications and future research

Despite these limitations, the results hold several implications for future research and practical application. First, the results of this study support existing literature on lie detection and the ability of consumers to detect washing. This alignment strengthens the credibility of this study and prior research and thus results can be more generalized. Furthermore, the results show that consumers do find the environment, animal welfare and their own health important. This is an encouraging

finding, as it shows that consumers do have the intention to buy products that adhere to these standards. This is reassuring, as this is a first step towards more sustainable, animal friendly and healthy behavior choices. However, it raises concerns that currently consumers are not aware that they are often deceived. Therefore, future research should focus on exploring ways to offer consumers with relevant information. To do so, it is also necessary to explore what kind of cues the consumers rely on when evaluating whether a product is truthful or deceptive. Furthermore, the results of this research yield insights that can be applied in practice. As found in this study, consumers do know that there is a possibility that they are being deceived when they are reminded that deception may occur. All participants thought they have bought a product before, and a proportionate number of participants could provide an example of a product that contains washing. Therefore, only reminding a consumer that they are potentially being washed can possibly help them to make more informed decisions.

Conclusion

This study highlights the complexity of consumer purchasing behavior in the context of green-, welfare- and health washed products in the supermarket, demonstrating that while many consumers care about these values, they often are not aware that they are being washed. Only few consumers spontaneously mention the possibility of being washed, while the majority does not. The possibility that they are being misled is not on top of their mind and the understanding of marketing techniques used is often limited. The findings show that consumers heavily rely on labels and textual cues when trying to buy products that adhere to their values. This shows that there is a gap between the intentions of consumers the awareness they have during shopping in the context of washing. Therefore, this research contributes to existing literature that states that consumers are often not aware of deceived marketing techniques and future research which should further explore what cues consumers rely on and how to enhance their knowledge and foster better informed consumption patterns.

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Appendix A

Interviewscheme

Bedankt dat u mee wil doen aan dit onderzoek. We gaan het vandaag hebben over de keuzes die u maakt over producten die u koopt in de supermarkt. Het interview duurt ongeveer 45 minuten. Ik zal de opname nu starten.

Onderdeel 1: Algemeen

- Zou u mij mee kunnen nemen in hoe een gemiddeld supermarkt bezoek er bij u uit ziet? Probeer hierbij zo specifiek mogelijk te zijn. Alternatieven/doorvragen:
 - a. Heeft u vaste gewoontes tijdens het winkelen? Zo ja, welke?
 - Kunt u wat vertellen over de manier waarop u vaak boodschappen doet? Bijvoorbeeld aan de hand van een boodschappenlijstje, onvoorbereid, op basis van aanbiedingen etc.
 - c. Heeft u een reden waarom u op deze manier de boodschappen doet? (bijv. structuur, rekening houdend met prijs, andere beweegredenen...)

Onderdeel 2: Kiezen van product(groep)

Nu gaan we iets specifieker in op de manier waarop u uitkiest welke specifieke producten u gaat kopen, aan de hand van verschillende productgroepen in de supermarkt.

Wanneer de geïnterviewde al iets heeft verteld over de productgroepen (welke onderdeel zijn van een van de vijf producten) waar hij/zij uitkiest kan je hier verder op in gaan. Zorg hierbij dat in ieder geval uit elke van de drie categorieën een product aan bod is gekomen.

Green-washing

2. Koopt u wel eens zeep in de supermarkt?

Zo nee, vraag door op deze volgorde: wasmiddel, water flessen of zalm.

(wanneer de respondent wel zeep en wasmiddel koopt, maar in een andere winkel,

kan hier ook op ingegaan worden. Dit heeft geen invloed op de resultaten)

- a. Als u voor dit schap staat, hoe gaat dan het keuzeproces om een product uit te kiezen tussen alle mogelijke ... (product) ?
- b. Wat gaat er op dat moment door uw hoofd bij het maken van deze keuze?
- c. Waarop is uw keuze op dat moment gebaseerd?

Alternatieven wanneer het antwoord is: dit koop ik altijd.

a. Wat maakt dat u altijd voor dit product kiest?

Alternatieven wanneer het antwoord is: ik kijk alleen naar ... (bijv. prijs)

- b. Wat doet u als een product dat u normaal koopt niet beschikbaar is?
- c. Zijn er factoren waardoor u zou overwegen om dit product niet meer te kopen?
- 3. Zijn er bepaalde dingen waar u (vaak) op let voordat u een product koopt?
 - a. Wat is de reden waarom u dit product (vaak) kiest?
 - b. Welke factoren spelen voor u een rol bij het kiezen van een product? (bijv. prijs, plek, looks, merk)
 - c. Wat maakt dat u uiteindelijke voor het ene product kiest en niet voor het andere?
- 4. Zijn er momenten waarop u twijfelt tussen alle verschillende producten die in het schap staan?
 - a. Hoe lost u die twijfel op?
- 5. Kunt u een recent voorbeeld geven van een keuze die u maakte tussen twee of meer vergelijkbare producten?
 - a. Wat gaf de doorslag?

Welfare-washing

6. Koopt u wel eens eieren in de supermarkt?

Zo nee, vraag door op deze volgorde: vlees, kaas, melk of boter

- a. Als u voor dit schap staat, hoe gaat dan het keuzeproces om een product uit te kiezen tussen alle mogelijke ... (product)?
- b. Wat gaat er op dat moment door uw hoofd bij het maken van deze keuze?
- c. Waarop is uw keuze op dat moment gebaseerd?

Alternatieven wanneer het antwoord is: dit koop ik altijd.

a. Wat maakt dat u altijd voor dit product kiest?

Alternatieven wanneer het antwoord is: ik kijk alleen naar ... (bijv. prijs)

- b. Wat doet u als een product dat u normaal koopt niet beschikbaar is?
- c. Zijn er factoren waardoor u zou overwegen om dit product niet meer te kopen?
- 7. Zijn er bepaalde dingen waar u (vaak) op let voordat u een product koopt?
 - a. Wat is de reden waarom u dit product (vaak) kiest?
 - b. Welke factoren spelen voor u een rol bij het kiezen van een product? (bijv. prijs, plek, looks, merk)

- c. Wat maakt dat u uiteindelijke voor het ene product kiest en niet voor het andere?
- 8. Zijn er momenten waarop u twijfelt tussen alle verschillende producten die in het schap staan?
 - a. Hoe lost u die twijfel op?
- 9. Kunt u een recent voorbeeld geven van een keuze die u maakte tussen twee of meer vergelijkbare producten?
 - a. Wat gaf de doorslag?

Health washing

- 10. Koopt u wel eens muesli/ontbijtgranen?
 - Zo nee, vraag door op deze volgorde: snoep, snackrepen of crackers/beschuit/toast
 - a. Als u voor dit schap staat, hoe gaat dan het keuzeproces om een product uit te kiezen tussen alle mogelijke ... (product)?
 - b. Wat gaat er op dat moment door uw hoofd bij het maken van deze keuze?
 - c. Waarop is uw keuze op dat moment gebaseerd?

Alternatieven wanneer het antwoord is: dit koop ik altijd.

a. Wat maakt dat u altijd voor dit product kiest?

Alternatieven wanneer het antwoord is: ik kijk alleen naar ... (bijv. prijs)

- b. Wat doet u als een product dat u normaal koopt niet beschikbaar is?
- c. Zijn er factoren waardoor u zou overwegen om dit product niet meer te kopen?
- 11. Zijn er bepaalde dingen waar u (vaak) op let voordat u een product koopt?
 - a. Wat is de reden waarom u dit product (vaak) kiest?
 - b. Welke factoren spelen voor u een rol bij het kiezen van een product? (bijv. prijs, plek, looks, merk)
 - c. Wat maakt dat u uiteindelijke voor het ene product kiest en niet voor het andere?
- 12. Zijn er momenten waarop u twijfelt tussen alle verschillende producten die in het schap staan?
 - a. Hoe lost u die twijfel op?
- 13. Kunt u een recent voorbeeld geven van een keuze die u maakte tussen twee of meer vergelijkbare producten?
 - a. Wat gaf de doorslag?
Onderdeel 3: Factoren van de verpakking

We hebben het net gehad over de manier waarop u kiest om een bepaald product te kopen. We gaan daar nu wat verder op in door te kijken naar de verpakkingen van deze producten.

Ga hierbij in op de drie producten waar je het net over hebt gehad, waarbij je per type washing deze vragen stelt:

- 14. Wat maak voor u dat een product de aandacht trekt?
 - a. Kunt u uitleggen wat de reden is waarom dit aandacht trekt?
 - b. Wat doet dit met uw besluitvorming om een product te kopen? Veranderd hierdoor uw keuze bijvoorbeeld?

15. Heeft u wel eens gehad dat u een product kocht op basis van de uitstraling? Doorvragen:

- a. Wat sprak u op dat moment aan in de uitstraling van dit product?
- b. Wat voor rol speelt de uitstraling van een productverpakking voor u? Is dit belangrijk of denkt u hier weinig over na?

16. Zijn er dingen aan een product of verpakking die u helpen om een keuze te maken?

- a. Hoe werkt dat voor u?
- b. Waar let u vooral op als u de verpakking gebruikt om een keuze te maken?

Onderdeel 4: ingaan op washing

We hebben het net gehad over de verpakkingen van producten in de supermarkt.

- 17. Zijn er producten waarbij u langer stilstaat bij de verpakking voordat u besluit deze te kopen?
- 18. Zijn er producten waarbij u vooraf of achteraf het gevoel had dat de verpakking een indruk wekte die niet helemaal klopte?
 - a. Zo ja, kunt u een voorbeeld geven?
 - b. Zo nee, kunt u zich voorstellen dat anderen dit wel eens ervaren? En kunt u daar een voorbeeld van geven?
- 19. Hoe gaat u om met de twijfel over wat een verpakking suggereert?

Onderdeel 5: Vragen naar washing

Sommige producten worden gepresenteerd als duurzamer, gezonder voor de mens of beter voor het dierenwelzijn dan ze daadwerkelijk zijn. Dit wordt ook wel washing genoemd. Greenwashing verwijst naar misleidende duurzaamheidsclaims. Voorbeelden zijn uitspraken over de CO2 uitstoot die verminderd zou moeten zijn of dat het product natuurlijk zou zijn. Vaak gaat dit slechts over een deel van het product of wordt het op zo'n manier geformuleerd dat het lijkt alsof dit een goede zaak is, terwijl dit niet het geval is. Welfare washing verwijst naar misleidende claims over dierenwelzijn. Hierbij wordt er bijvoorbeeld een afbeelding laten zien van een koe is een wei, terwijl deze koe helemaal nooit buiten staat. Hierdoor krijgt de consument een oneerlijk beeld van hoe dit product tot stand is gekomen. Healthwashing verwijst naar misleidende claims over de gezondheid van een product, bijvoorbeeld misleiding over hoe vezelrijk, laag in vet of hoog in eiwit een product is. Hier zijn vaak geen regels voor en worden misleidend op de verpakkingen gezet.

Hierbij denk u dus dat u een product koopt wat goed is voor het milieu, voor de dieren of voor uw gezondheid, maar dat is dan in werkelijkheid niet zo

- 20. Heeft u wel eens gehoord dat dit plaatsvindt?
- 21. Zo ja, Kunt u een voorbeeld geven van een product dat
 - a. Health washing bevat?
 - b. Welfare washing bevat?
 - c. Greenwashing bevat?
- 22. Denkt u dat u weleens een product heeft gekocht dat misleidende claims had?
- 23. Hoe bepaalt u of een product echt zo duurzaam, gezond of diervriendelijk is als deze beweert te zijn?
- 24. Zijn er signalen waardoor u wantrouwig wordt over de verpakking van producten?
 - a. Kunt u voorbeelden geven?
 - b. Waar let u dan op?

Ik wil u heel erg bedanken voor het meedoen aan dit interview. Ik zet de opname uit. Als u nog vragen heeft achteraf, mag u altijd contact opnemen met mij.

Appendix **B**

Questionnaire in Qualtrics

Vragenlijst onderzoek keuzegedrag in de supermarkt

Start of Block: Informed consent

Hartelijk dank voor het meedoen aan dit onderzoek!

Deelname aan het onderzoek

Ik ben Lotte Breukelman van de faculteit Behavioral, Management and Social Sciences van de Universiteit Twente, en ik houd interviews voor mijn masterscriptie voor de studie psychologie. Ik doe onderzoek naar de keuzes die mensen maken bij het kopen van producten in de supermarkt. Hiervoor leg ik interviews af met allerlei verschillende mensen. Het interview zal ingaan op hoe u keuzes maakt om bepaalde producten te kopen, en hoe u tot deze beslissing komt. Meedoen aan het onderzoek is volledig vrijwillig. Er kan op elk moment gestopt worden, zonder negatieve consequenties en zonder reden. Vooraf aan het interview wordt een korte vragenlijst afgenomen, deze duurt maximaal 5 minuten om in te vullen. Deze vragenlijst zal vragen naar geslacht, leeftijd, wat achtergrondinformatie en vragen over uw supermarktgedrag. Het interview duurt maximaal 45 minuten. Na het interview zullen er nogmaals een aantal vragen in de vragenlijst gesteld worden over uw persoonlijke waarden, wat ook maximaal 5 minuten duurt.

Risico's verbonden aan het onderzoek

Er zijn geen risico's verbonden aan het participeren in dit onderzoek.

Gebruik van informatie

Om ervoor te zorgen dat de data niet te herleiden valt naar een persoon, wordt er geen persoonlijke data gevraagd naast geslacht en leeftijd. Ik zal uw naam dus ook niet benoemen tijdens het interview. Hierdoor wordt anonimiteit bewaard. Daarnaast zal de data bewaard worden op de cloudopslag van de Universiteit Twente, zodat data veilig opgeslagen wordt.

Data wordt alleen gebruikt voor mijn master these en een internationaal wetenschappelijk artikel.

Het interview wordt opgenomen zodat de antwoorden verwerkt kunnen worden in het onderzoek. Deze opname wordt verwijderd nadat het interview uitgeschreven is.

Extra's

U heeft de kans om één van de twee boodschappenbonnen ter waarde van 25 euro te winnen na het meedoen aan het onderzoek.

Toestemming geven

Het geven van consent om mee te doen aan dit onderzoek is definitief. Er kan contact met mij opgenomen worden via l.g.breukelman@student.utwente.nl

Q15 Geeft u toestemming om te participeren in dit onderzoek?

\bigcirc	Ja. ik	geef toes	temming	(1)
\sim	5u, 11		comming.	(+)

 \bigcirc Nee, ik geef geen toestemming (2)

Q21 Alle informatie die u geeft is anoniem. Er worden geen persoonsgegevens gevraagd naast uw geslacht en leeftijd. Het interview wordt opgenomen. De opname wordt gewist nadat deze overgeschreven is.

Q14 Geeft u toestemming om het interview op te nemen?

\bigcirc	Ia	ik	geef toestemming	(1)	۱
\smile	Ja,	117	geer westernning	(1)	J

 \bigcirc Nee, ik geef geen toestemming (2)

End of Block: Informed consent

Start of Block: Eerste deel: algemene vragen

Q22 In het eerste deel van het interview worden er allereerst een aantal persoonsgegevens gevraagd. Daarnaast zullen er wat vragen zijn over uw manier van boodschappen doen. Dit duurt niet langer dan 5 minuten om in te vullen. Na dit onderdeel zal het interview beginnen.

Q1 Wat is uw geslacht?

 \bigcirc Vrouw (1)

O Man (2)

O Anders, namelijk: (3)

 \bigcirc Zeg ik liever niet (4)

Q2 Wat is uw leeftijd?

O jonger dan 20 jaar (1)

O 20-30 jaar (2)

○ 30-40 jaar (3)

O 40-50 jaar (4)

○ 50-60 jaar (5)

○ 60-70 jaar (6)

 \bigcirc ouder dan 70 jaar (7)

Q3 Hoe ziet uw woonsituatie eruit?

Studentenhuis (1)
Alleen-wonend (2)
Samenwonend met partner (3)
Gezin met kinderen (4)
Gezin met kinderen >12 jaar (5)
Bij ouders/familie (6)
Samenwonend met huisgenoten (7)

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Q4 Wat is uw hoogste opleidingsniveau?

_ _ _ _ _ _ _ _ _ _ _ _ _

Q5 Wat is uw gemiddelde wekelijkse boodschappen budget?

0-25 euro (1)
25-50 euro (2)
50-75 euro (3)
75-100 euro (4)
100-125 euro (5)
125-150 euro (6)
150-175 euro (7)
175-200 euro (8)
200+ euro (9)

Q9 Hoe doet u vaak uw boodschappen? (u kunt meerdere antwoorden aanklikken)

Online bestellen (1)
In een fysieke supermarkt - alleen (2)
In een fysieke supermarkt - samen met iemand anders (3)
Anders, namelijk: (4)

Q8 Hoe vaak gaat u gemiddeld naar de supermarkt?

\bigcirc Minder dan 1 keer per week (1)
\bigcirc 1 keer per week (2)
\bigcirc 2 keer per week (3)
\bigcirc 3 keer per week (4)
\bigcirc 4 keer per week (5)
C Elke dag (6)
O Meerdere keren per dag (7)

Q10 Hoe lang bent u gemiddeld bezig met boodschappen doen? (geef hierbij een schatting van hoelang u vaak bezig bent met het doen van uw boodschappen)

 \bigcirc Minder dan 5 minuten (1)

 \bigcirc 5 tot 10 minuten (2)

 \bigcirc 10 tot 20 minuten (3)

 \bigcirc 20 tot 30 minuten (4)

 \bigcirc 30 minuten tot een uur (5)

 \bigcirc Langer dan een uur (6)

Q7 Heeft u een bepaald dieet (of dieetwensen) waar u rekening mee houdt tijdens het doen van boodschappen?

\bigcirc Alles eter (1)	
Carnivoor (2)	
Vegetarisch (3)	
Veganistisch (4)	
O Keto (5)	
O Rekening houdend met allergie, namelijk: (6)	
O Anders, namelijk: (7)	

End of Block: Eerste deel: algemene vragen

Start of Block: Interview

Bedankt voor het invullen van de vragen. Klik deze pagina niet weg, u kunt deze laten staan. Laat het weten dat u klaar bent met het invullen van de vragen, dan zal het interview zal nu starten. Na het interview kunt u verder gaan met het tweede en tevens laatste deel van de vragenlijst.

End of Block: Interview

Start of Block: Tweede deel: waarden

Q39 Het laatste deel van de vragenlijst zal nu starten. Dit deel gaat over hoe belangrijk bepaalde onderwerpen voor u zijn. Dit duurt niet langer dan 5 minuten om in te vullen.

Q19 Hoe belangrijk is gezondheid voor u?

O Helemaal niet belangrijk (1)

 \bigcirc Niet belangrijk (2)

O Enigzins onbelangrijk (3)

 \bigcirc Neutraal (4)

 \bigcirc Enigzins belangrijk (5)

 \bigcirc Wel belangrijk (6)

O Heel erg belangrijk (7)

Q37 Hoe belangrijk is het milieu voor u?

O Helemaal niet belangrijk (1)

 \bigcirc Niet belangrijk (2)

O Enigzins onbelangrijk (3)

O Neutraal (4)

 \bigcirc Enigzins belangrijk (5)

 \bigcirc Wel belangrijk (6)

 \bigcirc Heel erg belangrijk (7)

Q38 Hoe belangrijk is dierenwelzijn voor u?

Helemaal niet belangrijk (1)
Niet belangrijk (2)
Enigzins onbelangrijk (3)
Neutraal (4)
Enigzins belangrijk (5)
Wel belangrijk (6)
Heel erg belangrijk (7)

Q25 De volgende vragen bevatten stellingen. U kunt het antwoord aanklikken welke u het beste vind passen bij uw opvattingen.

Q24 Als je je gezondheid niet hebt, heb je niks.

 \bigcirc Helemaal niet mee eens (1)

 \bigcirc Niet mee eens (2)

 \bigcirc Enigszins mee oneens (3)

 \bigcirc Niet mee eens en niet mee oneens (4)

 \bigcirc Enigszins mee eens (5)

 \bigcirc Mee eens (6)

 \bigcirc Helemaal mee eens (7)

Q26 Er zijn veel andere dingen die belangrijker zijn dan mijn gezondheid.

Helemaal niet mee eens (1)
Niet mee eens (2)
Enigszins mee oneens (3)
Niet mee eens en niet mee oneens (4)
Enigszins mee eens (5)
Mee eens (6)
Helemaal mee eens (7)

Q27 Een goede gezondheid is slechts van klein belang in een gelukkig leven.

Helemaal niet mee eens (1)
Niet mee eens (2)
Enigszins mee oneens (3)
Niet mee eens en niet mee oneens (4)
Enigszins mee eens (5)
Mee eens (6)
Helemaal mee eens (7)

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Q28 Er zijn weinig dingen meer belangrijk dan een goede gezondheid.

Helemaal niet mee eens (1)
Niet mee eens (2)
Enigszins mee oneens (3)
Niet mee eens en niet mee oneens (4)
Enigszins mee eens (5)
Mee eens (6)
Helemaal mee eens (7)

Q29 Ik vind het belangrijk om milieuvervuiling tegen te gaan.

Helemaal niet mee eens (1)
Niet mee eens (2)
Enigszins mee oneens (3)
Niet mee eens (3)
Niet mee eens (3)
Niet mee eens (3)
Niet mee eens (6)

 \bigcirc Mee eens (6)

 \bigcirc Helemaal mee eens (7)

Q30 Ik vind het belangrijk om het milieu te beschermen.

O Helemaal niet mee eens (1)
\bigcirc Niet mee eens (2)
\bigcirc Enigszins mee oneens (3)
\bigcirc Niet mee eens en niet mee oneens (4)
\bigcirc Enigszins mee eens (5)
O Mee eens (6)
O Helemaal mee eens (7)
Q31 Ik vind het belangrijk om de natuur te respecteren.
O Helemaal niet mee eens (1)
\bigcirc Niet mee eens (2)
\bigcirc Enigszins mee oneens (3)
\bigcirc Niet mee eens en niet mee oneens (4)
\bigcirc Enigszins mee eens (5)
O Mee eens (6)
O Helemaal mee eens (7)

Q32 Ik vind het belangrijk om één te zijn met de natuur.

O Helemaal niet mee eens (1)
\bigcirc Niet mee eens (2)
O Enigszins mee oneens (3)
\bigcirc Niet mee eens en niet mee oneens (4)
\bigcirc Enigszins mee eens (5)
O Mee eens (6)
O Helemaal mee eens (7)
33 Ik vind het belangrijk dat dieren goed behandeld worden.
O Helemaal niet mee eens (1)
\bigcirc Niet mee eens (2)

 \bigcirc Enigszins mee oneens (3)

 \bigcirc Niet mee eens en niet mee oneens (4)

 \bigcirc Enigszins mee eens (5)

 \bigcirc Mee eens (6)

 \bigcirc Helemaal mee eens (7)

Q34 Ik vind het belangrijk dat mensen rekening houden met de gevoelens van dieren.

 \bigcirc Helemaal niet mee eens (1)

 \bigcirc Niet mee eens (2)

 \bigcirc Enigszins mee oneens (3)

 \bigcirc Niet mee eens en niet mee oneens (4)

 \bigcirc Enigszins mee eens (5)

 \bigcirc Mee eens (6)

 \bigcirc Helemaal mee eens (7)

Q35 Ik vind het belangrijk dat dieren in comfortabele omstandigheden worden gehouden.

O Helemaal niet mee eens (1)

 \bigcirc Niet mee eens (2)

 \bigcirc Enigszins mee oneens (3)

 \bigcirc Niet mee eens en niet mee oneens (4)

 \bigcirc Enigszins mee eens (5)

 \bigcirc Mee eens (6)

 \bigcirc Helemaal mee eens (7)

Q36 Ik vind het belangrijk dat dieren met respect behandeld worden.

Helemaal niet mee eens (1)
Niet mee eens (2)
Enigszins mee oneens (3)
Niet mee eens en niet mee oneens (4)
Enigszins mee eens (5)
Mee eens (6)
Helemaal mee eens (7)

End of Block: Tweede deel: waarden

Start of Block: Block 4

Bedankt voor het invullen van het laatste deel van de vragenlijst. U kunt de vragenlijst nu inleveren door via de pijlknop naar de volgende pagina te gaan. Ik zal u nog wat verdere informatie geven over het doel van het onderzoek.

Appendix C Translation English-Dutch quotes

Table 1

Phase	of quotes Quote- English version	Quote- Dutch version
Phase 1	I want to eat more vegetarian, but that does not work out yet. And well, my grandfather often joins us for dinner. Try getting him to eat a beetroot burger or something, that is just not going to happen. And then, when I am at the supermarket I want to buy cheese, I think to myself: I don't need cheese. Cheese is bad for the environment	Ja, want ik wil ook meer vegetarisch gaan eten. Maar dat lukt me nog niet echt. En ja, opa eet ook heel vaak mee Ja ga die maar eens aan een bietenburger krijgen ofzo, dat gaat gewoon niet gebeuren. En ja verder, dan ben ik in de supermarkt en dan wi ik kaas kopen: dan denk, ik heb geen kaas nodig. Kaas is slecht voor het milieu.
Phase 2	I think they can cover it up easily, they can say that the cows are happily grazing outdoors, while they are only there for 40 days a year. Or, yeah, they claim the calf stayed with its mother, and that actually doesn't mean anything at all	Ik denk dat ze het heel goed kunnen verbloemen, dat ze kunnen zeggen, goh, deze koeien lopen lekker buiten, maar dat het maar 40 dagen per jaar zijn. Of ja ik weet niet, dat ze beweren dat het kalf wel bij de moeder is gebleven en dat wil het eigenlijk helemaal niets.
	If something is labeled in a way that explains how it's made, or things like that, then I do feel like at least they are not trying to hide anything. Of course, I always feel like they will still be hiding something, but at least less than the ones who do not say anything at all	Als er iets wordt vernoemd op de manier waarop het gemaakt is, bijvoorbeeld of dat soort dingen, dan heb ik wel het gevoel dat ze in ieder geval niks proberen te verbergen. Tuurlijk, ik heb altijd het gevoel dat z wel iets zullen verbergen, maar in ieder geval minder dan de ander die daar niks over zegt.
	So many options. It's honestly insane. They've really gone overboard with it, in every variation. And well, you can try to pay attention to how much sugar is in there, or what the healthiest option is? But yeah, I am not someone who always directly looks at the ingredients in the supermarket, so yeah, looking at the packaging, what is on there and based on that choose something what feels right.	Zó veel. Is echt niet normaal. Daar is een beetje in doorgeschoten. In alle variaties. En nou ja, dan kun je een beetje proberen op te letten op waar zitten de meeste meeste suikers in, wa is het meest gezonde? Maar goed, ik ben ook niet iemand die direct in de supermarkt altijd op de ingrediënten kijkt dus ja, een beetje voor op het pal kijken wat daarop staat en op basis va wat daar op staat een beetje bij goed gevoel dat uitkiezen.
	I usually just grab the pack of 12 free-range eggs without looking into other options Crackers, you know, with all those seeds and	Ik pak over het algemeen gewoon het pakje met 12 scharreleieren. Dan ga i niet verder kijken naar andere. Crackers, weet je wel, met allemaal
	with a nice little story around it and it looks really aesthetic, you know.	zaden dat gewoon met een mooi verhaaltje eromheen zit en het ziet er lekker aesthetic uit, zeg maar.
Phase 3	I think about the marketing, about what the packaging looks like. What they put on there	Ik denk aan de marketing, hoe het hoe de verpakking eruitziet. Wat ze daarop

	and what not. Yeah, you also have those cows, like 'pasture-raised' or something, and then I am like: sure, nice that you put that on the label, but to what extent is that cow truly pasture-raised? And then there is other marketing too, where you see TV commercials for certain products, like cheese, and there is a female farmer happily skipping through a meadow with a cow, and they are all roaming freely. Then I think, yeah, I don't think something's right there.	zetten of helemaal niet vermelden. Ja, je hebt ook van die koetjes, zo'n weidekoe of zo ja, dan denk ik ja, leuk dat je erop zet, maar in hoeverre is jouw koe een weidekoe. Verder dus in andere marketing ook wel: dan zie je reclames op TV over bepaalde producten over kaas en dan zie je zo een vrouwelijke boerin en die is heel leuk met een koe aan het huppelen of zo door de wei en die lopen heel vrij. Dan denk ik ja, volgens mij klopt het niet.
	It's a cardboard box, so it might look more sustainable or like a more natural kind of packaging for eggs. Eggs are a natural product after all, and if they come in plastic packaging, it just feels unnatural	Toch wel een kartonnen doosje. Dat het dus misschien er duurzamer uitziet of een natuurlijkere verpakking voor eieren. Eieren zijn toch wel een natuurlijk product. En als het dus in die plastic verpakking zit dan voelt dat onnatuurlijk
	I think that if I would buy a different one, I would look at the text on the packaging. Like whether it says something about fiber, or that it has certain percentage less sugar, or whatever it says on there. That you can see from the outside what the inside of the packaging contains. I mean, I want to the entire product	Ik denk dat als andere zou kopen dat ik dan wel naar de tekst zou kijken, bijvoorbeeld of er op staat met vezels ofzo, of zoveel procent minder suiker wat er dan op staat. Dat je aan de buitenkant kan zien hoe het aan de binnenkant van de verpakking er ongeveer uit ziet. Ik wil zeg maar het volledige product dan wil zien.
Phase 4	I have to be honest, I don't really believe a lot of things, not all the time. I think that it is just a nice sales pitch? So I think I don't really let the texts on products influence me that much. Especially with protein things nowadays. It's kind of like, yeah, it sounds good, but is it really true that there is that much more protein in a product? And what kind of other rubbish do they put in there? Because it makes it look really healthy, but I do not think it is	Ik moet heel eerlijk zijn dat ik heel veel dingen niet helemaal geloof, altijd. Dat ik dan denk ja, dat is een heel mooi verkooppraatje. Dus Ik denk de teksten op producten zelf niet echt laat beïnvloeden En dit is met die proteïnedingen tegenwoordig. Dat is een beetje ook wel dat je denkt, ja het is goed. Maar het is het wel echt zo dat hier zoveel meer proteïne in zit dan dat ze zeggen? En wat voor een andere troep zeg maar, zit er dan nog wel bij in? Want dat doet het heel gezond ogen, maar eigenlijk is dat het volgens mij helemaal niet.
	You sometimes see it there, then you look at it and then I don't do anything with it. No I often do check if it actually says something like, well, milk from a cow that has been grazing out in an open grass field, so to speak	Je ziet het wel eens staan, dan kijk je erop en dan niet zoveel? Nee. Daar kan ik vaak toch wel naar of er dan inderdaad iets opstaat van nouja. Melk van een koe wat in gras en in de

Lately, I've been paying a lot of attention to proteins. So now I would never buy a regular breaker anymore, but only the ones with extra protein. Good for my workouts. I buy a	gewoon open grasweide zeg maar heeft gelopen. Eiwitten let ik de laatste tijd heel veel op. Ik zou nu dus nooit meer een normale breaker kopen, maar wel die met extra eiwitten. Goed voor het
lot of products that have extra proteins in them It says 'high in protein' on the packaging and then I think: yeah, great, I'll choose that one.	sporten. Ik koop wel veel waar meer eiwitten inzitten Er staat dan: rijk aan proteïne. Dan denk ik mooi, die kies ik.
Yeah, there is a lot of nonsense on there that isn't true, so yeah I don't really know. There is also a whole mess of different types and varieties. That's obviously really unfair. It should be more uniform, so I think that could be improved	Ja er staat veel onzin op wat niet klopt, dus ja ik weet het ook niet. Daar is ook een janboel in soorten en maten van. Dat is natuurlijk ook hartstikke oneerlijk. Dus dat zou veel meer uniform moeten zijn, dus ik denk dat dat wel iets beter kan.
I find it a bit pointless that it has to come from Afrika or South America just so I can eat a mango here. And that has to do with the fact that most fruits mostly consist of water anyway. So you are basically just moving a large amount of mostly water all around the world, and then I think, I might as well just eat an apple	En ook gewoon omdat ik een beetje onzinnig vind dat het uit Afrika of uit Zuid-Amerika moet komen, zodat ik hier een mango kan eten. En dat heeft ook een beetje mee te maken dat de vruchten over het algemeen voornamelijk uit vocht bestaan. Dus je bent gewoon voor een groot deel, voornamelijk vocht aan het verplaatsen bent over de hele wereld en dan denk ik dan eet ik wel een appel.
I feel the same about deli meats. I don't eat them myself, but when I look at them, I think the more expensive packaging looks more appealing. I think that's because of how it's presented in the packaging or how it's sliced. For example, in the cheaper version the sliced meat looks perfectly round and uniform. The more expensive version might not look quite as perfect, but it's in nicer packaging and also maybe has less weight. So, you'd assume the quality is better, but	Ik heb dat ook wel met vleeswaren. Ik eet dat zelf niet, maar als ik daarnaar kijk dan vind ik de duurdere verpakking er wel lekkerder uit zien. Dat is dus dat komt dus denk ik door hoe het gepresenteerd wordt in de verpakking of doe het gesneden is. Bijvoorbeeld dat het in de goedkope verpakking er perfect uitziet in een ronde vorm gesneden vlees, zeg maar. In een wat duurdere verpakking zal het
really, it's just the way it's sliced And it's the same with those protein things nowadays. It's kind of like, yeah I think it's good but is there really that much more protein in it than they claim?	er niet helemaal perfect uitzien, maar zit het ook gewoon in een mooie verpakking en misschien wel minder gram dus dan zal dus je aanname dat het dat de kwaliteit beter is, terwijl het is alleen maar de manier is hoe het gesneden is. En dit is met die proteïnedingen tegenwoordig. Dat is een beetje ook wel dat je denkt, ja het is goed. Maar het is het wel echt zo dat hier zoveel meer proteïne in zit dan dat ze zeggen?

	Yeah, I did have the experience that I bought something that was more expensive, because it looked nice, but I did not find it more tasty than the cheaper one. And if I buy something that is more expensive, it is mostly because the packaging look better. I think it tastes better because it looks tastier, because cheap brands are not packaged that nicely.	Ja, ik heb dat wel eens gehad dat ik dacht van nou heb ik iets duurders gekocht, want het leuke uitzag ook, maar ik vind het niet per se lekkerder dan als ik het goedkopere uit hem had gekocht. En dan als er iets duurder koop, dan is het in het wel echt puur omdat het de verpakkingen beter uitziet. Ik denk dat het lekkerder is doordat het er lekkerder uit ziet, want vaak is gewoon de goedkope dingen eigen merk is gewoon niet zo mooi
	I'm not really the kind of person who would notice that kind of thing or actually remember what it says on there	verpakt. Ja, ik ben zelf niet zo dat met dat soort dingen dat mij zou opvallen of dat ik met dat zou herinneren eigenlijk
Phase 5	Oh no, not that I know of. Well, I do have that with for example the Nutriscore on the packaging. I know that this score is based on the product category it belongs to, but I don't fully understand why that score is even there. So personally, I don't really pay attention to it. I kind of consciously avoid it, actually. Instead, I just look at the back of the packaging, at the nutritional values, and compare those If you buy a different kind of yoghurt or quark and it says 'extra protein', I do check to see how much protein is actually in it compared to one that doesn't have that statement on the packaging. And sometimes the difference is really small, like 1%. Then I think, yeah, it's kind of pointless to put that on the packaging like that, it's just a sales	Oh, nee, niet dat ik weet. Nou, ik heb wel met die bijvoorbeeld die Nutriscore die op verpakkingen staan. Ik weet daarvan dat het gewoon binnen de productgroep is waar het onder valt. Ik snap niet helemaal waarom die score er is. Dus daar kijk ik persoonlijk niet heel erg naar. Dus dat vermijd ik wel een soort van bewust. En dan kijken ik dus gewoon naar de achterkant van de verpakking naar de voedingswaarde daarna en dat vergelijken met elkaar. Als je een ander soort yoghurt of kwark koopt en er staat bij extra eiwitten, dan heb ik wel eens een keer dat ik ging kijken van hoeveel percentage eiwit zit er nu dan eigenlijk in in verhouding tot iets waar het niet op staat. Dan is het verschil soms heel weinig dat Ik denk van oké, waarom
	technique And then they also talk about the number of square meters or so that a chicken has to	staat hier op dat extra veel eiwit in zit, terwijl het percentage eigenlijk maar 1% meer is. Dus dat wel, dan denk ik van ja, dat is dan een beetje onzin om dat er zo op te zetten, dus verkooptechniek. En dan hebben ze nu ook het aantal vierkante meters of zo waarop ze een
	walk around. Yes, I have some doubts about that too Then you assume that the claim is true, that it contains natural fragrances, and I think, well, otherwise they wouldn't be allowed to put that on the label?	kip loopt. Ja, daar heb ik ook een beetje mijn twijfels bij Dan ga je ervan uit dat dat dat die bewering klopt, dat het natuurlijke geurstoffen heeft, dan denk ik van ja anders mag je dat er niet op zetten?

I do think to some extent that one assumes that what is on the packaging is true in the end	Ik denk dat dan toch een beetje gewoon uitgaat van wat op de verpakking staat uiteindelijk waar is.
Well, if something claims to promote this or that, I often think: every person is different	Nouja als er iets geclaimd wou worden van: bevorderd dit of bevorderd dat. Dan denk ik al vaak van: elk mens is anders.
Yeah, that's also the case with those Nutriscores. Sometimes there is an A on it, even though you know it's unhealthy. So with those things, you kind of see through it	Ja, dat is ook natuurlijk met die Nutriscores. Ja, daar staat eigenlijk ook een groene A, terwijl je gewoon weet, hè, het is gewoon ongezond. Dus bij sommige dingen heb je het dan wel een beetje door.
Because I'm trying to eat more vegan, I've been reading and seeing more about it. And then you think, wow, is that really how milk production or battery framing for chicken's work? It really shocked me	Ja, ja, daar ben ik ook omdat ik dus meer vegan en probeer te eten. Dan lees en zie je daar meer over. En dan denk je van goh dat het er zo aan toe gaat, zo'n melkproductie of kippen legbatterijen? Ja daar ben ik gewoon heel erg van geschrokken
Let's be honest, I don't do research into this topic, so it's just an assumption that you make and then you create your own opinion. But then I'm also not that into it that I will fully do research	Kijk, laat ik eerlijk zijn: ik doe er dan ook geen research naar, dus dat is een aanname die je doet en dan ja vorm je daar een mening over. Maar ik ben dan misschien daar ook niet zo erg mee bezig dat ik dan wel echt helemaal research naar ga doen.
I go to the supermarket and rush through it. So I'm definitely not going to stop and check: is this healthy or is this good? No, I'm not doing that. My goal in the supermarket is to get through it as quickly as possible, because I just don't feel like being there	Ik ga naar de supermarkt en ik knal erdoorheen. Dus ik ga er echt niet helemaal bekijken van: is dit gezond, is dit wel goed? Nee, dat ga ik niet doen. Mijn taak in de supermarkt is om er zo snel mogelijk doorheen te jagen, omdat ik er geen zin in heb.
To be honest, I don't pay attention to that. No. I know all that stuff is possible, but I've got other things on my mind, like having to meet a deadline in the evening for example. Then I think, yeah, I don't really have time to think that deeply about my block of cheese or my jar of jam. Yeah. I've got way more important thing to do. It's not really my problem	Heel eerlijk, ik kijk daar niet naar? Nee. Ik weet wel dat dat allemaal kan, maar ik heb echt andere dingen aan mijn hoofd, want ik moet 's avonds nog een deadline bijvoorbeeld in leveren. Dan denk ik ja, ik heb echt geen tijd om zo diep na te denken over mijn pak kaas en daarna nog de pot jam. Ja. Ik heb echt meer dingen te doen. Ik vind dat niet aan mij.